



# 2006 PERFORMANCE PARTS BUILT FORD FAST



MUSTANG FR500C 2005 GRAND AM CUP CHAMPION

\$5.00 USA

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CHASSIS COMPONENTS

PERFORMANCE WHEELS

CRATE ENGINES

ENGINE COMPONENTS

1



# MOST FORD RACING PERFORMANCE PARTS AND VEHICLES ARE SOLD WITH NO WARRANTY.

FORD RACING PERFORMANCE PARTS AND VEHICLES ARE SOLD "AS IS". "WITH ALL FAULTS". "AS THEY STAND" AND WITHOUT ANY EXPRESS WARRANTY WHATSOEVER, UNLESS OTHERWISE EXPRESSLY DESIGNATED HEREIN. TO THE FULLEST EXTENT ALLOWED BY THE STATE AND FEDERAL LAW. FORD MOTOR COMPANY EXPRESSLY DISCLAIMS THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, EVEN IF A PARTICULAR PURPOSE IS MENTIONED HEREIN, FORD ALSO EXPRESSLY DISCLAIMS ALL LIABILITY FOR DIRECT. INDIRECT. SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO. DAMAGE OR LOSS OF PROPERTY OR EQUIPMENT. LOSS OF PROFITS OR REVENUE, COST OF PURCHASE OR REPLACEMENT OF GOODS, OR CLAIMS OF CUSTOMERS OF THE PURCHASER THAT RESULT FROM THE USE OF ANY AND ALL PARTS OR VEHICLES CONTAINED IN THIS CATALOG. IN NO EVENT SHALL THE LIABILITY OF FORD MOTOR COMPANY. WHETHER IN TORT. CONTRACT OR OTHERWISE. EXCEED THE COST OF THE PART OR VEHICLE. HOWEVER, YOU MAY HAVE LEGAL RIGHTS WHICH VARY FROM STATE TO STATE.

SHOULD ANY PARTS OR VEHICLES CONTAINED WITHIN THIS CATALOG PROVE DEFECTIVE FOLLOWING THEIR PURCHASE, THE BUYER AND NOT THE MANUFACTURER, DISTRIBUTOR OR RETAILER, SHALL ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING AND/OR REPAIR. THE ENTIRE RISK AS TO THE PERFORMANCE OF SUCH PARTS OR VEHICLES IS WITH THE BUYER.

NO VEHICLE IN THIS CATALOG OR OFFERING IS STREET LEGAL OR CERTIFIED UNDER FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND REGULATIONS. SUCH VEHICLES ARE NOT INTENDED OR CERTIFIED FOR USE ON PUBLIC ROADS.

TO THE EXTENT THAT A PART CONTAINED WITHIN THIS CATALOG COMES WITH A WARRANTY FROM THE ORIGINAL MANUFACTURER, NOT FORD RACING PERFORMANCE PARTS OR FORD MOTOR COMPANY, THE BUYER SHOULD CONTACT THE ORIGINAL MANUFACTURER FOR ANY AND ALL WARRANTY REPAIR OR REPLACEMENT. TO DETERMINE WHICH PARTS COME WITH A WARRANTY FROM THE ORIGINAL MANUFACTURER, NOT FORD RACING PERFORMANCE PARTS, PLEASE CONTACT THE FORD RACING TECH "HOT LINE" AT (586) 468-1356 OR:

FORD RACING PERFORMANCE PARTS 44050 N. GROESBECK HIGHWAY CLINTON TOWNSHIP, MI 48036-1108



Ford Racing Performance Parts is proud of the quality built into each and every product we sell.

Automotive enthusiasts know that it's one thing for a manufacturer to make claims about quality, but quite another to back them up. FRPP is pleased to announce our Performance Crate Engines now carry a 12-month/12,000-mile limited warranty. It's your assurance that when you purchase a FRPP crate engine, you're buying Ford quality, backed by the Blue Oval. It's performance you can trust.

# FORD RACING PERFORMANCE PARTS PERFORMANCE ENGINE LIMITED WARRANTY

Ford Racing Performance Parts warrants to the original retail purchaser for 12 months or 12,000 miles, whichever occurs first, that it will repair or replace, at its option, using new or remanufactured parts, Ford Racing Performance Parts engine covered part that, after inspection, is found to have failed due to a defect in factory supplied material or workmanship.

Covered parts include the engine block and cylinder heads, all internally lubricated parts of the engine, including pistons, piston rings, piston pins, crankshaft and main bearings, connecting rods and rod bearings, camshaft and camshaft bearings, timing chain, timing chain gears, intake and exhaust valves, valve springs, oil pump, push rods, rocker arms, valve lash adjusters, hydraulic or mechanical lifters, and valve stem seals, to the extent that the original engine contains the referenced warranted part. Parts that require normal manufacturers recommended replacement intervals are not covered under this warranty.

To the extent allowed by law, loss of time, inconvenience, loss of the use of the vehicle, commercial loss, and incidental and consequential damages are not covered. There is no other express or implied warranty on these Ford Racing Performance Parts Engines including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose.

#### This warranty does not cover:

- Parts which are replaced as part of normal maintenance.
- Installation or removal costs.
- Damage due to improper installation, negligence, alteration, or accident, including use related to racing or competition, marine or motorcycle applications, or for other non-vehicle usage.
- Engines where the vehicle odometer has been disconnected or the mileage has been altered.
- Damage caused by lack of proper maintenance, failure to follow maintenance schedule intervals, or failure to use or maintain proper type and levels of fluids, fuel, oil, and lubricants. Proof of proper maintenance is the owner's responsibility. Keep all receipts and be prepared to make them available if questions arise about maintenance.
- Towing, shipping, rental vehicles, loss of time, inconvenience, loss of use, or other economic loss.
- Ford Racing Performance Parts engines installed in vehicles registered and/or normally operated outside the United States and Canada.

To obtain warranty repair or replacement, please contact Ford Racing Performance Parts at (586) 468-1356 or:

Ford Racing Performance Parts 44050 N. Groesbeck Highway Clinton Township, MI 48036-1108





# PERFORMANCE PARTS DESIGNATIONS



As one of the leading manufacturers of performance parts, Ford Motor Company recognizes a special responsibility regarding environmental concerns. Ford Racing Performance Parts is committed to a program of developing performance parts that allow motorsport enthusiasts to modify their vehicles and meet emission requirements.

Using guidelines established by the state of California for aftermarket parts used in vehicles driven on public highways, Ford engineers have developed a system for identifying parts that are acceptable for use on emission controlled motor vehicles and those intended for competition purposes only.

This catalog lists more than 1,000 Ford Racing parts. For emission purposes, these parts are classified into three groups. Asterisks are used after the part number to identify the category to which the part belongs.

#### GROUP 1— PARTS WITH NO ASTERISK

- Indicates that the part does not affect emissions—and is Street Legal.
- For marketing purposes, some Street Legal parts also are identified with a 50-States Street Legal logo.
- Typical parts include gauges, valve push rods, body and chassis components, and engine dress-up items.

#### STREET LEGAL BY EXECUTIVE ORDER

- This special group of add-on or modified group of parts are Street Legal by Executive Order from the State of California, because Ford Racing has demonstrated through emission testing that they do not adversely affect vehicle emissions when used on emission controlled vehicles.
- A listing of Ford Racing superchargers for the 5.0L Mustang that are Street Legal under E.0. #D-308-2, are described on page 116.
- Ford Racing cylinder heads for the 4.6L Mustang that are street legal under E.O. #D-308-6, are described on page 44.

## GROUP 2— Parts with 1 Asterisk (\*)

- Indicates that for emission considerations, the part is NOT Street Legal. The following footnote appears at the bottom of catalog pages describing these parts: \*Not legal for sale or use on pollution-controlled motor vehicles.
- Part numbers with a single asterisk typically include off road performance parts and parts that may affect original equipment emission function, such as cylinder heads, engine blocks and camshafts.

#### NOTE-CALIFORNIA

Parts marked in this catalog with an asterisk and appropriately marked on their packaging may legally be used in California only on a racing vehicle which will never be operated on public roads.

#### GROUP 3— PARTS WITH 2 ASTERISKS (\*\*)

- Indicates that the part is Street Legal as a Direct Replacement Part.
- Part numbers with two asterisks can improve performance and/or appearance—while still providing original equipment emission function.
- The following footnote appears at the bottom of pages describing these parts: \*\*Direct Replacement Part.

#### **FUTURE DEVELOPMENTS**

Ford Racing is continuing the process of developing, analyzing and testing engine and powertrain parts which can be used on pollution controlled vehicles. Many, of course, are all-out performance parts and have no application for cars driven on public highways. Ford's vision is to provide products meeting all of our various customers' needs while remaining environmentally responsible.

For more information on this program, call the Ford Racing Tech "Hot Line" (586) 468-1356.

# **IMPORTANT NOTICE**

This catalog lists primarily special performance parts and is intended only as a supplement to the published service manuals and parts catalogs of Ford Motor Company. Buyers of performance parts are warned that many of these parts are for off-highway use only and that the following provisions apply:

#### **OFF-HIGHWAY OR RACING USE**

Because U.S., Canadian, state or provincial laws and regulations may prohibit removal or modification of components that were installed on vehicles by Ford Motor Company to meet emission requirements or to comply with motor vehicle safety regulations applicable to vehicles manufactured for use on public roads, Ford Motor Company recommends that vehicles equipped with parts designated "for off-highway use" not be operated on public roads, and offers such parts only for track or off-highway competitive or performance use. Such parts have a special "warning" label (see next column).

#### WARNING:

This part has been designed and is intended for off-highway application only. Installation on a vehicle intended for use on public roads may violate U.S., Canadian, state or provincial laws and regulations including those relating to emission requirements and motor vehicle safety standards. (NOTE: In California this part may legally be used only on a racing vehicle which will never be operated on public roads.) In addition, installation of this part may adversely affect the warranty coverage on your vehicle.



# FORD RACING PERFORMANCE PARTS CATALOG TURNS 25

This year marks the 25th anniversary of the Ford Racing Performance Parts catalog. While the name has changed over the years, there has always been a single, driving force behind publication of the catalog—the enthusiasts who create FRPP parts serving the needs of the Ford enthusiasts who purchase them.

Twenty-five years ago, our performance parts catalog was essentially a few pages of bolt-on engine parts. Since then, we've grown into a full-range supplier of performance parts for nearly every aspect of your vehicle.

No birthday celebration is complete without making a wish, which you can consider as our look into the future. We've been listening to your feedback, and because of it, we are working on the following:

- Modular Power from Ford Racing: The 5.0L Cammer is powering our Grand-Am Cup cars and we think a host of "mod-motor" offerings will be the best way to add power to your SN95 or S197 Mustang.
- The 5.0L pushrod block lives on and endures as a permanent icon of Ford performance, whether replacing an engine in an earlier Mustang, building a hot rod, or building circle-track, road-racing, or drag-racing series competitors. We want to help you put a genuine Ford in your Ford, with products like the new Boss 302 block (see page 64).
- Mustang is at the heart of what we do, but Ford performance is our overall mission. So look for us to
  expand our parts offerings for F-150, Focus and other Fords—especially any SVT vehicle.
- The 2005 Mustang marks the dawn of a new era in performance parts at Ford Racing. The on-track performance of the FR500C and the arrival of the Shelby GT500 are laying the foundation for a new array of Mustang performance offerings, from power packs to handling kits, all with Ford Racing electronics and performance calibrations. For those seeking power and finesse beyond the street, there is no better time to own a Mustang!
- Lastly, we are increasing our use of the web to provide 24-7 access to our products and even more information for our customers (for example, installation sheets are now available online). So please check us out at www.fordracingparts.com for the very latest from FRPP.

This new 2006 FRPP catalog is filled with factory-tested components that deliver as much Ford performance and pride as any of the 25 years past. It's been a great ride so far, but Ford Racing Performance Parts is working hard to ensure that the best is yet to come.





# FORD RACING

Dear Fellow Ford Enthusiasts:

Like many of you, I drive a Mustang—it's the yellow one you see in the picture on this page. It's my daily driver—not because I need a test bed for new parts (though parts evaluation is a nice perk of the job), but because I'm a performance vehicle and motorsports enthusiast first and foremost. Ford Racing Performance Parts is, and always has been, about Ford enthusiasts making the best possible parts for fellow Ford enthusiasts.

What distinguishes FRPP from everyone else in the aftermarket parts business is that we are



the "factory." No one knows the engineering and the limits of your

Ford better than the Ford family of employees who engineer, produce and distribute Ford vehicles. When FRPP develops a performance part, it goes through rigorous testing and development. How many other aftermarket companies have handling courses, wind tunnels, chassis and engine dynos, crash-test facilities, etc., all at their fingertips? Not many. Consequently, what you find in this 2006 FRPP catalog are among the best-engineered and best-performing parts that you can buy for your Ford.

That said, we'd like to take this time to thank several of our fellow Ford enthusiasts for their strong support and interest over the years.

- First, thanks to all the Mustang owners and enthusiasts who continue to fuel our passion to develop
  performance parts for America's favorite muscle car 40 years running.
- Also, a heartfelt "thank you" and our appreciation to the Authorized Ford Racing Performance Parts distributors, and the many Ford Dealers who have supported our program over the years.
- Finally, thanks to the legions of Ford owners, high-performance supporters and sanctioning bodies for making Mustang the most desired entry across the country, whether it's drag racing, road racing, circle track, or drifting. It's proof that there is no better thrill than running a Mustang.

We look forward to offering you the best-engineered, most desirable products available anywhere. After all, we wouldn't put anything less on our own high-performance Ford!

All the best,

Jamie Allison Manager, Ford Pacing Performance Parts

# THE MINDSHAPER PROGRAM

M-80000-A CD-Rom M-80000-B Interactive DVD

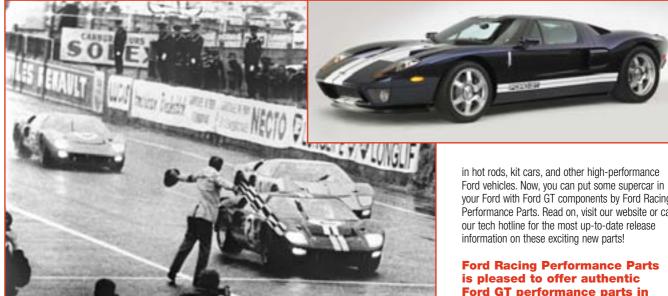
- When you get behind the wheel, prepare yourself the way the pros do!
- The "Mindshaper" program is modeled after professional race training programs formerly available only to the elite drivers of the world
- Produced by Human Performance International for Ford Racing



The MindSHAPER" Suite is a groundbreaking "software toolbox" designed to give you the tools you need to fine tune and enhance your mental skills. Previously available and used only by our professional clients, this innovative and proven PC-based Windows software program is now available to all individuals looking to improve and enhance their mental skills.



# 2005-06 FORD GT



Perhaps no performance car in the history of the American automobile has better earned the right to reach legendary status among enthusiasts than the Ford GT40, and for good reason. Ford's purpose-built endurance racer took the international auto racing world by storm in the mid-1960s, thanks to a storied 1-2-3 finish at Le Mans that led to other dominating performances across the globe in the years that followed.

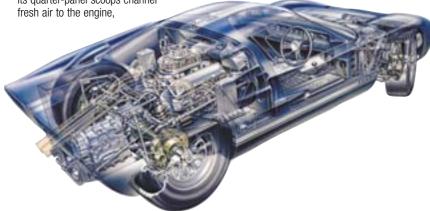
Today, the enthusiast world is again abuzz with excitement over the rebirth of Ford's legendary supercar, the 2005-06 Ford GT. Though the sleek, familiar lines of the new Ford GT strongly recall the car's glorious past, the design is a thoroughly modern interpretation of the original. And while its mission is still one of dominant performance, its target has moved from the racetracks of the world to the streets of America.

In the tradition of authentic GT racers, the Ford GT's doors wrap up into the roof and its quarter-panel scoops channel

which is the heart and soul of this modern American exotic. It simply looks and performs like nothing else on the road. Once its hand-built, all-alloy 550-horsepower supercharged V-8 is experienced at full song, the words "Powered by Ford" will surely define performance for a whole new generation of enthusiasts.

In production form, the all-new Ford GT captures the very essence of Ford Racing, as well as the hearts and imagination of every blue-blooded Ford enthusiast. With the Ford GT now arriving at your local Ford dealership, Ford Racing Performance Parts is actively developing performance components to help each owner customize their Ford GT to personal desires.

Those who may never own a Ford GT can still benefit from FRPP's ongoing development of Ford GT components. That's because FRPP has developed ways to utilize enhanced hardware created for the Ford GT



your Ford with Ford GT components by Ford Racing Performance Parts. Read on, visit our website or call

# this 2006 catalog.

- **ENGINE:** MOD 5.4-liter supercharged V-8 mounted amidships. Alloy-block with aluminum four-valve heads, forged crankshaft, H-beam forged rods, aluminum pistons and a dry-sump oil system. Modified screw-type supercharger with water-to-air intercooler.
- TRANSAXLE: All-new, six-speed transaxle from Ricardo. Fully synchronized with integral, torque-sensing, limited-slip differential. Twin-plate clutch delivers low pedal efforts while providing the clamp loads necessary to handle 500 ft./lbs. of torque.
- FUEL: Delivered via dual fuel injectors per cylinder.
- HORSEPOWER/TORQUE: 550 horsepower/500 ft./lbs. of torque.
- **SUSPENSION:** Double-wishbone suspension design with unequal-length aluminum control arms, coil-over monotube shocks and stabilizer bars, front and rear. Upper control arms are the same at each corner.
- **BRAKES:** Brembo<sup>®</sup> one-piece brake calipers with four pistons each. Cross-drilled, vented discs at all four wheels. The discs are 14 inches in front and 13.2 inches in the rear. Anti-lock control and electronic brake force distribution.
- TIRES/WHEELS: One-piece BBS wheels with Goodyear Eagle F1 Supercar tires, size 235/45ZR-18 in front and 315/40ZR-19 in the rear

# FORD GT





# FORD GT PERFORMANCE MUFFLER KIT

#### M-5230-GT\*

- · Substantially louder than stock muffler
- · Exits in stock location
- Mounts at all stock points •
- Includes installation hardware
- OFF-ROAD ONLY! NOT STREET LEGAL!
- · Strongly recommended if vehicle is equipped with M-9430-GT headers



# FORD GT REAR EXIT HEADERS

#### M-9430-GTX\*

- · Replaces factory exhaust manifolds, cat pipe and mufflers
- Includes collector type race mufflers
- Includes installation hardware
- OFF-ROAD ONLY! NOT STREET LEGAL!
- Exits in stock location
- · See www.fordracingparts.com for more details

#### FORD GT BILLET OIL FILL CA M-6766-GT

- · Ford GT oil fill cap with billet cover
- Direct replacement for Ford GT oil fill cap
- Fits most 1986-2004 Mustang GT
- GT logo machined into cap surface
- · Chrome plated



#### FORD GT TRANSAXLE COOLER KIT M-7095-GT

- · Kit includes cooler and all installation hardware, fittings, lines and brackets for Ford GT
- · A must for aggressive driving and open track events
- OEM fit



#### FORD RACING IGNITION COIL COVERS M-6067-A

- Fits most 1999 and newer 4.6L DOHC engines with coil on plug ignition
- Micro polished billet aluminum
- Ford Racing logo



- FORD GT LONG TUBE HEADERS M-9430-GT\* · Replaces factory exhaust manifolds and cat pipe Bolts to stock muffler or M-5230-GT muffler •
- Includes installation hardware •
- OFF-ROAD ONLY! NOT STREET LEGAL!





\*Not legal for sale or use on pollution-controlled motor vehicles. \*\*Direct replacement part.





In a testament to Ford durability and engineering, the FR500C has stormed the Grand Am Cup GS class. With five cars in the field for 2005, every race has seen an FR500C on the podium. This turnkey racecar is on its way to establishing Mustang as the dominant car in Grand Am Cup GS.

If this year's results are any indication, expect to see another great year for the Mustang FR500C in 2006!

2005 RACE RESULTS		
Daytona:	1st, 2nd	
Santo Domingo:	2nd	
California:	1st	
Laguna Seca:	1st, 3rd	
Watkins Glen:	2nd	
Mosport:	1st, 3rd	
Barber:	3rd	
Trois Rivers:	5th	
Mid Ohio:	2nd	
Phoenix:	3rd, 4th	

#### MUSTANG FR500C RACE CAR M-FR500-C\*



A turnkey ready-to-run steed for Grand Am Cup GS class! The Mustang FR500C features the following:

- Seam-welded, pre-paint, production body. Grand Am spec roll cage, attachment points and enclosures specifically for racing.
- Ford Racing 5.0L "Cammer R50" engine. The heart of this purpose-built machine mated to our unique Tremec T-56 racing transmission.
- Ford Racing brake and suspension upgrades
- Add driver...and look for victory lane!

#### ENGINE

• Type: 5.0L "CAMMER R50"

#### STEERING

- Steering Rack: Ford rack and pinion
- Power Steering: Ford hydraulic

#### **FUEL SYSTEM**

- Fuel Cell: ATL custom dual dry break-20 gallon
- Fuel Pumps: Walbro 255L/H
- Pressure Regulator: Ford—stock

#### WHEELS

- Manufacturer: Fikse
- Size—Front: 18" x 10.0"
- Size—Rear: 18" x 10.0"

#### DIMENSIONS

- Wheelbase: 107.1"
- Front Track: 62.8"
- Rear Track: 63.0"
- Dry Weight: 3200 lbs.

#### DRIVELINE

- T-56 6-speed transmission
- Trac-Tech C-Locker
- Supercharged Cobra Clutch Kit

#### BRAKES

- Front: Brembo® 4-piston
- Rear: Ford—stock
- Master Cylinder: Ford—stockABS: Ford—stock
- ABS: Foru-

#### CHASSIS

- Type: Uni-body full seam welded with integrated safety cage
- Structural Performance: Over 20,000 ft.-lbs./degree (torsional)
- Construction: Ford—modified stock steel

#### REAR SUSPENSION

- Dynamic Suspensions—coil-over dampers
- 3-way adjustable-high/low speed compression rebound
- Ride height adjustable
- · 3-link with panhard bar
- Urethane bushings



#### FRONT SUSPENSION

- Dynamic Suspensions—inverted struts
- 3-way adjustable—high/low speed compression rebound
- Ride height adjustable coil over
- Urethane bushings
- · Adjustable anti-roll bar

#### ANCILLARIES

- C&R aluminum radiator with integrated oil cooler
- Ford Racing Performance Parts exhaust system
- Ford Racing Performance Parts high-flow intake system
- SPARCO cable activated extinguisher

#### COCKPIT

- SPARCO racing seat
- SPARCO 320mm steering wheel-quick release
- SPARCO 6-point safety harness
- Center mount console switches
- AIM digital dash system—data logging and display

#### FORD RACING PARTS FOR PRIVATEER BUILDERS...

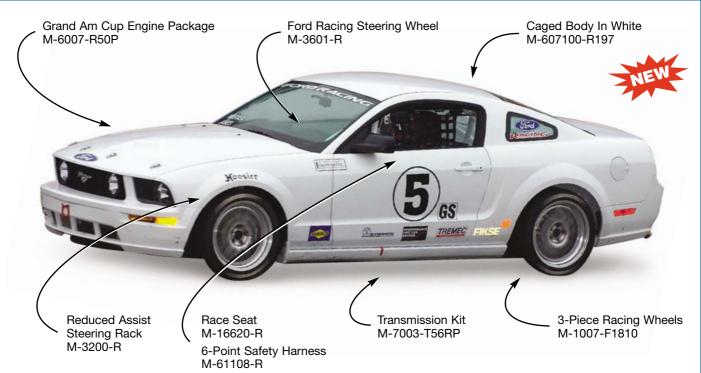
- M-6007-R50P Engine Package
- 5.0L "Cammer R50" race engine package. This is the only engine package approved for Grand Am Cup racing in a 2005 Mustang. This is the same engine used in the Ford Racing Mustang FR500C racecar.
- This package includes:
  - M-6007-R50 engine assembly
  - M-9430-R50 exhaust manifolds
  - M-14403-T50H interior engine control harness
  - Engine control unit

#### M-7003-T56RP TRANSMISSION KIT

- This is the only transmission package approved for Grand Am Cup racing in a 2005 Mustang. This package was developed by Ford Racing and Tremec Transmission for use in the Ford Racing Mustang FR500C racecar.
- This kit includes:
  - M-7003-T56R 6-speed transmission with low helix 4615 steel alloy gears, one-piece counter shaft, heavy duty pads, slip yoke configuration.
  - M-5059-R transmission crossmember and urethane mount.
  - Production 2005 throwout bearing which maintains hydraulic clutch actuation







• M-7210-R

M-6038-R

M-8005-R

M-3395-A

M-2300-A

• M-3052-R

M-18183-R

M-18120-R

M-5638-R

M-5639-R

M-2001-R

M-2200-R

• M-3601-R

M-16620-R

M-61108-R

M-9002-R

M-12637-T50G

• M-12650-BR50

#### ADDITIONAL FORD RACING PERFORMANCE PARTS LEGAL FOR GRAND AM CUP:

• M-4602-J

- M-3075-R
  - M-3130-R Front Outer Tie Rod Ends
- M-5649-R •

•

- M-607100-R197 •
- M-1007-F1810 ٠
- M-3200-R ٠
- M-4204-C31

• M-4211-A

M-6379-B

M-7213-B

M-6397-A46

M-4033-G1

18" x 10" Steering Rack with Reduced Assist 8.8" Locker M-4209-G355M 8.8", 3.55:1 Ring and Pinion 8.8" Gasket Kit Differential Cover with Bearing Supports Flywheel Bolts Clutch Bolt Kit Shift Knob

Drive Shaft

Front Control Arms

Rear Control Arms

Caged Body in White

- M-7277-B Shift Boot
- M-9432-A54 Header Bolt Kit
- M-2005-R
- Brake Master/Booster Assembly **Proportioning Valve**
- M-2328-C

#### **MUSTANG FR500C GRAND** AM CUP ENGINE PACKAGE M-6007-R50P\*

- Package includes, M-6007-R50 engine assembly, M-9430-R50 headers, M-14403-T50H interior engine control harness and Engine Control Unit
- Must be used to compete in Grand Am Cup with a 2005-06 Mustang



Shifter Kit Motor Mounts Radiator Ball Joint Front Brake Kit **Caster Adjusters** Caster Adjuster Kit **Race Dampers** Rear Upper Control Arm Bushings Panhard Rod Bushing Kit Front Brake Pads Rear Disc Brake Pad **Fuel Charge Harness Engine Control Unit** Steering Wheel Race Seat 6-point Safety Harness Fuel Cell

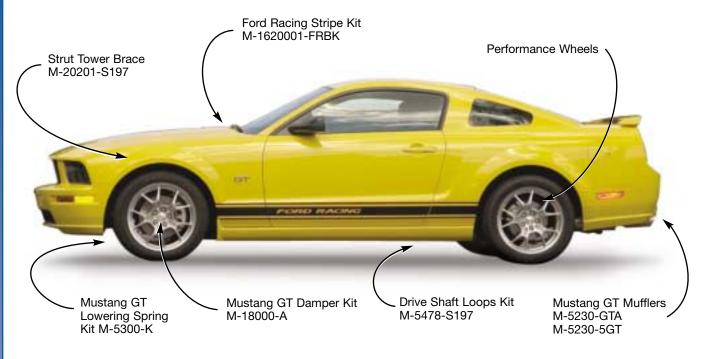


- Service replacement for the Mustang FR500C race car
- Kit includes M-7003-R50 gear box, transmission crossmember and mount



# 2005-06 MUSTANG

# CHECK FORDRACINGPARTS.COM FOR MORE 2005-06 MUSTANG PARTS.



Ford dealers around the country have had one major complaint with the new 2005 Mustang—they can't get enough!

The new 2005 Mustang has quickened the hearts of performance enthusiasts everywhere. With a design that hails back to the early days of Trans-Am where Mustang was king, the new Mustang looks fast even standing still.

Since day one, the Mustang's performance traits, combined with its popularity, made it a natural choice for racers and racing fans alike. It soon became a regular in the winner's circle in nearly every facet of amateur and professional motorsports.

The exciting new FR500C keeps that winning tradition alive, dominating the Grand Am Cup series and setting standards for reliability and consistency. Following in the footsteps of racers like Kenny Brown, Steve Saleen, Jerry

Titus and Mark Donohue, the current generation of racers is getting it done with a new Mustang.

Of course, you don't need to race to enjoy enhanced performance. Street cars benefit from FRPP parts engineered and tested through racing, increasing the performance of any Mustang at a stoplight or twisting through a mountain highway.

The new Mustang is a keeper and it's never been a better time to be a Mustang and Ford Racing enthusiast. With high quality and performance wrapped in modern sheetmetal that harkens back to the days of big block performance, Mustang gallops into the future as America's best sporty, fun-to-drive car. If that proven formula sounds familiar, it's no accident. Ford Racing has exciting parts to add to that fun to drive equation, and you can be sure that even more parts are in development to ensure your Mustang is a winner on the street or on the racetrack.

#### 2005-06 MUSTANG ENTRY GUARD M-13208-M100



- Improves appearance and protects vehicle entry area
- Made of stainless steel with a Ford Racing logo
   Kit includes two guards, installation tape and instructions



#### DRIVE SHAFT LOOPS KIT M-5478-S197\*

- Bolts to floor pan 2005-06 Mustang GT
- Must drill holes for installation
- Zinc plated to resist corrosion
- Includes hardware
- Includes front and rear loops for production two piece driveshaft



#### 2005-06 MUSTANG GT WHEEL M-1007-U1885\*

- Optional wheel on
- 2006 Mustang GT Fits all 2005-06 Mustangs
- Silver sparkle finish
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 18" x 8.5" wide
- Includes Ford Racing center cap



## 2005 BLACK MUSTANG GT WHEEL

- M-1007-T178B\* • Fits 2005 Mustang
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 17" x 8" wide
- · Includes center cap Available in 18".
- check the website



#### 2005 POLISHED MUSTANG GT WHEEL

#### M-1007-T178P\*

- Fits 2005 Mustang
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 17" x 8" wide

#### · Includes center cap



## 2005-06 MUSTANG GT WHEEL

- M-1007-U1885P\* Optional wheel on
- 2006 Mustang GT Fits all 2005-06 Mustangs •
- Polished aluminum lip and edges with argent insets
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 18" x 8.5" wide
- Includes Ford Racing center cap

M-1007-U1885 shown

#### **2005 SILVER MUSTANG GT** WHEEL

- M-1007-T178S\*
- Fits 2005 Mustang
- 5-lug, 4.5" bolt circle • 6.295" backspacing
- 17" x 8" wide
- Includes center cap • Available in 18", check the website



#### **2005 CHROME MUSTANG GT** WHEEL

- M-1007-T178C\* Fits 2005 Mustang
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 17" x 8" wide
- Includes center cap
- Available in 18", check the website





#### M-1096-A

Fits 2005-06: 16" aluminum, 17" base GT, and all 18" GT Mustang wheels.







# 2005-06 MUSTANG PERFORMANCE PACKS

# POWER PACK

#### M-2005-FR1\*

- 20 plus horsepower, in your driveway, in an afternoon!
- · Fits 2005 Mustang GT with 5-speed transmission and factory 3.55 gear ratio
- Power Pack includes 90mm Cold Air Kit M-9603-GT05, Axle Back Muffler Kit M-5230-GTA and Performance Oil Filter CM-6731-FL820
- Premium fuel only
- Includes Pro-Cal tool with official Ford Racing calibration
- Approximately a 20 HP increase at the rear wheels

HANDLING PACK

# M-2005-FR3\*

#### Put a little "Road Race" into your street car!

- Fits 2005-06 Mustang GT Coupe
- Handling Pak includes Dampers M-18000-A, Lowering Springs M-5300-K, Sway Bars M-5490-A, and Strut Tower Brace M-20201-S197
- All components are designed to work together as a package
- Lowers car approximately 1.5"
- Dampers, uniquely tuned by Multimatic Motorsports, the same company that makes dampers for the FR500C race car

2005-06 MUSTANG GT LOWERING SPRING KIT

2005-06 MUSTANG GT

ANTI-ROLL BAR KIT

· Progressive spring, designed for increased handling and

Lowers 2005-06 Mustang GT approximately 1.5"

Use with M-18000-A and M-5490-A for optimum

M-5300-K

performance

performance

M-5490-A

Anti-roll bar kit

handling and performance on 2005-06 Mustang GT

designed for increased

Best when used with

M-5300-K springs

M-18000-A

M-18000-A dampers and

· Includes all mounting hardware

DYNAMIC DAMPER KIT

• Dynamic Suspension dampers, same manufacturer as Mustang FR500C race car

• Designed specifically for lowered vehicles

Use with M-5300-K and M-5490-A for

Parallel beam design for added rigidity

• Unique FRPP performance tune

optimum performance

Fits 2005-06 Mustang GT

Black powder coated

Stainless steel Ford

Racing emblem

Does not fit V-6

M-20201-S197

2005-06 MUSTANG GT COUPE







- Synthetic-Polymer/Cellulose-Fiber blend media
- Heavy gauge base and canister for higher burst strength and impulse fatigue resistance
- High-quality silicone anti-drain back valve
- Non-stick sealing gasket for ease of installation and removal
- · Long life with standard and synthetic motor oils



- Up to 50% more filtering capacity then standard filters
- Improved filtering efficiency
- This technology is only available through Ford Racing Performance Parts

# **AXLE BACK MUFFLER KIT**

- M-5230-GTA
- T-409 stainless body with highly polished 4.0" diameter tips · Louder, "throatier"
- exhaust note
- 50 states legal

#### **MUSTANG 90MM COLD AIR KIT** M-9603-GT05\*

- Fits 2005 Mustang GT with 5-speed transmission and factory 3.55 gear ratio
- Significant performance gains
- Premium fuel only
- Kits includes 90mm aluminum mass air meter housing and Pro-Cal tool with official Ford Racing calibration
- Air box mounts in stock location

2005-06 MUSTANG STRUT TOWER BRACE



# DRAG PACK



- M-2005-FR2\*
- Big block-like performance from your modular Mustang!
- Fits 2005 Mustang GT with 5-speed transmission • Drag Pak includes 90mm Cold Air Kit M-9603-GT410, 4.10 ratio Ring and Pinion M-4209-G410A, Gear Installation Kit M-4210-A, Shorty Headers M-9430-S197, Short Throw Shifter M-7210-T and Performance Oil Filter CM-6731-FL820
- Premium fuel only
- Includes Pro-Cal tool with official Ford Racing calibration
- Reduces 1/4 mile et's up to 1/2 second



#### **MUSTANG 8.8" RING GEAR AND PINION SETS**

PART NUMBER	RATIO					
M-4209-G410A*	4.10:1					



#### 2005-06 MUSTANG HI-FLOW SHORTY HEADERS M-9430-S197\*

M-9430-S197C\*

Coated with Jet-Hot® Ceramic Finish

- Fits 2005 Mustang GT
- 409 stainless steel tubes
- Machined flange
- Bolts to stock exhaust pipes
- Includes gaskets, bolts and studs

#### HEADER LIMITED WARRANTY

This limited warranty becomes void if the product shows evidence of bending or mutilating

of parts or burnout resulting from improper tuning. Warranty covers rust through only and does not cover cosmetic rust or discoloration of material. This limited warranty shall be limited to the repair, adjustment or replacement of defective parts only. Does not cover any labor claims. Ask your dealer for a copy of this Jet-Hot Limited Warranty.

# **MUSTANG 90MM COLD AIR KIT**

#### M-9603-GT410\*

- Fits 2005 Mustang GT with 5-speed transmission and factory 4.10 gear ratio
- Significant performance gains
- Premium fuel only
- Kits includes 90mm aluminum • mass air meter housing and Pro-Cal tool with official Ford Racing calibration
- · Air box mounts in stock location

### FORD RACING HIGH-PERFORMANCE **OIL FILTER**

- CM-6731-FL820
- · Synthetic-Polymer/Cellulose-Fiber blend media
- Heavy gauge base and canister for higher burst strength and impulse fatigue resistance
- High-quality silicone anti-drain back valve
- Non-stick sealing gasket for ease of installation • and removal
- Long life with standard and synthetic motor oils
- Up to 50% more filtering capacity then
- standard filters Improved filtering efficiency
- This technology is only available through Ford Racing Performance Parts

#### 2005-06 MUSTANG GT HURST **PERFORMANCE SHORT** THROW SHIFTER M-7210-T

- Designed by Ford Racing and Hurst
- Fits 2005-06 Mustang GT with 3650 transmission
- Spherical bearing with unique shifter rod and OE main stamping
- Urethane body
- vibration isolators
- 40% reduction in throw



- Kit includes: pinion and carrier shims, crush sleeve, pinion seal, pinion nut, ring gear bolts and cover gasket
- Use for changing ring and pinion gear or differential
- Fits IRS •











# 2005-06 MUSTANG





#### 2005 FORD RACING MUSTANG **STRIPE KITS** Ford Racing Blue

Ford Racing Black



M-1620001-FRBL M-1620001-FRBK M-1620001-FRSL

- Ford Racing Silver • As seen on Mustang FR500C race car
- 10" stripe width for over-the-body stripes
- Vintage look rocker molding stripes
- Ford Racing script in lower body side stripes (as pictured above)
- Professional installation required!

#### FORD GT BILLET OIL FILL CAP M-6766-GT

- Ford GT oil fill cap with billet cover
- Direct replacement for Ford GT oil fill cap
- Fits most 1986-2004 Mustang GT
- GT logo machined into cap surface
- Chrome plated

# FORD GT COOLANT OVERFLOW CAP M-8006-GT

- · Ford GT coolant overflow cap with billet cover
- "GT" logo machined in cap surface · Fits both coolant overflow and intercooler reservoir



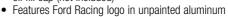
#### **2005 MUSTANG STRIPE KITS** Blue

M-1620001-BL M-1620001-BLK Black

- M-1620001-SL
- Silver As seen on Mustang FR500C race car
- 10" stripe width for over-the-body stripes
- Vintage look lower body side stripes without "Ford Racing" on rocker panel (not shown)
- Professional installation required!

#### **BILLET OIL FILL CAP COVER** FOR 4.6/5.4/6.8L M-6766-M46

- · Fits all years modular engine
- Installs over factory plastic
- oil fill cap (not included)



Clear coated



- · Fits all years modular engine
- Installs over factory plastic oil fill cap (not included)
- · Features Ford Racing logo painted in blue and red
- Clear coated











# 2005-06 MUSTANG V-6 MUFFLER KIT

- M-5230-5V6\*
- T-304 stainless construction
- · Louder. "throatier" exhaust note
- 50 state drive-by noise legal •
- Includes muffler with Ford Racing embossed 3.5" exhaust tip



# 2005-06 MUSTANG GT EXHAUST KIT

- M-5230-5GT\*
- T-304 stainless construction
- · Proven increase in horsepower and torque • Louder, "throatier" exhaust note



- 49 state drive-by noise legal (not legal in CA)
- Includes mufflers with Ford Racing embossed 3.5" exhaust tips



#### COATED 3-VALVE CAM COVERS 4.6L/5.4L

M-6582-C543V Powdercoated for chrome appearance M-6582-3VB



Silver • Fits all 2005-06 3-valve 4.6L/5.4L engines

M-6582-3VBLK

M-6582-3VS

Blue

Black Wrinkle



#### 2005-06 MUSTANG GT SHORT THROW SHIFTER M-7210-U

- Designed by Ford Racing and B&M
- Fits 2005-06 Mustang GT with 3650 transmission
- · Stainless and billet aluminum construction
- 30% reduction in throw, increased shifting effort
- Spherical bearing
- Threaded shift handle for use with production knob



#### 2005-06 MUSTANG HIGH-PERFORMANCE RADIATOR M-8005-S197\*

- Fits 2005-06 Mustang GT
- Thermally efficient up to 700 horsepower •
- Uses OEM fan and mounting points •
- 2.25" Core thickness
- All aluminum construction



# **MUSTANG FR500C REAR** LOWER CONTROL ARMS



#### M-5649-R

- Service replacement part for the Mustang FR500C race car
- Higher durometer bushing enhances response of vehicle
- Fits 2005-06 Mustang GT

#### **MUSTANG FR500C REAR UPPER CONTROL ARM BUSHINGS** M-5638-R

 Service replacement for the Mustang FR500C race car



- Includes bushings and sleeve for upper rear control arm
- Fits 2005-06 Mustang GT rear suspension ٠
- Increased durometer bushing for precise handling and control

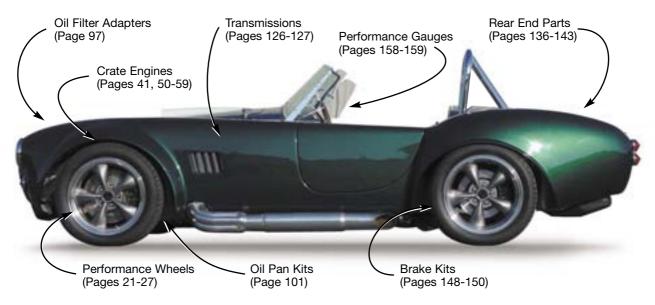


#### MUSTANG FR500C PANHARD ROD **BUSHING KIT** M-5639-R

- Service replacement for the Mustang FR500C race car
- Includes bushings with sleeves
- Fits 2005-06 Mustang GT production panhard rod
- Increased bushing durometer for more precise handling and control



# KIT CARS



#### 5.8L/ 351- 392 CID SMALL BLOCK-475 HP "Z" ALUMINUM HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY M-6007-C392\*

- 392 cubic inch
- 475 HP @ 5600 RPM (with headers and 750 CFM Holley carburetor, not included)
- 495 ft./lbs. of torque @ 4400 RPM
- 10.0:1 compression ratio (nominal)
- Forged steel crankshaft and forged aluminum pistons
- Ford Racing aluminum "Z" cylinder heads M-6049-Z304A
- Ford Racing high-performance hydraulic roller camshaft and roller rocker arms
- Single plane "Victor Jr." intake manifold
- New heavy-duty 351W "Sportsman" block, oil and water pumps and a high-performance harmonic damper
- Canton 7-quart performance oil pan fits 1979 and later "Fox"-bodied cars
- Billet distributor
- Great engine for serious performance applications **NOTE:** Photo and specs may vary.

#### KIT CAR IRS HUB M-1109-A

- 5 x 4.5" bolt circle, 2.775" wheel pilot hub for popular Mustang size wheels
- Should be used with IRS knuckle M-5970-A
- Original equipment on 1999-04 Mustang Cobra

# KIT CAR IRS BEARING

- M-1215-A
- For use with kit car IRS hub M-1109-A
- Original equipment on 1993-98 Mark VIII, 1989-97 Thunderbird, and 1999-04 Cobra



ra

# 2003-04 COBRA PINION FLANGE 👡

- M-4851-B
- Original equipment on 2003-04
   Mustang Cobra
- Designed for use with 1350 U-joint flange
- 4.25" bolt circle
- Fits all 8.8" rear drive pinions

#### 8.8" IRS HOUSING KIT M-4010-A88

- Aluminum IRS differential housing, rear cover, rear cover bolts, oil slinger and vent tube
- Does not include gear set, gear installation kit or IRS compatible differential
- Original equipment on 1989-97 T-Bird, 1993-98 MK-VIII, 1999-04 Mustang Cobra with 8.8"

#### KIT CAR IRS KNUCKLE SET M-5970-A

- Knuckles for use in kit car IRS systems
- Hub not included! Use with
- M-1109-A. Sold separately
- Includes M-1215-A
- Original equipment on 1989-97 Thunderbird and 1993-98 Mark VIII

# 90° ROTATING OIL FILTER ADAPTER

- M-6880-C50
- Recommended for all pushrod crate engines in kit cars, street rods and race cars
- Fits all engines that use FL1A oil filter
- High-performance, high-flow adapter machined from billet aluminum
- Can be rotated 360°
- Inlet and outlet ports 1/2" NPT, 90° to filter pad
- Adapter only, lines, fittings and filter mount not included
- Use with M-6880-S oil filter mount

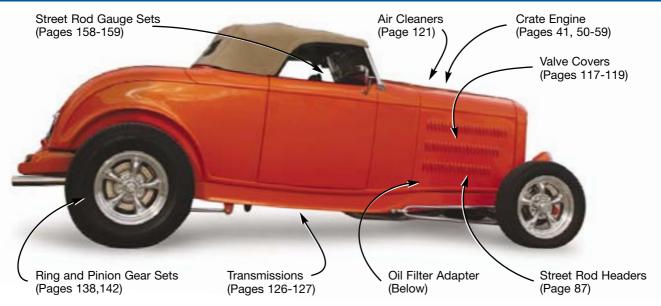






# STREET RODS





#### 5.0L/302 – 340 HP GT-40 ALUMINUM HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY REPLACES M-6007-XE3 WITH ADDITIONAL FEATURES

- M-6007-XE3M\* E303 Camshaft Auto or Manual Transmission
- 302 cubic inch
- 340 HP with M-6250-E303 camshaft, Ford Racing induction kit, headers, and a 65mm throttle body not included
- 9.0:1 compression ratio (nominal)
- Ford Racing aluminum GT-40 cylinder heads M-6049-X303
- Ford Racing high-performance hydraulic roller camshaft M-6250-E303, roller lifters and M-6564-B351 roller rocker arms
- · Great for limited budgets. It's the fast, easy way to add performance
- · Good for kit cars, street rods, and trucks
- Depending on your application, the timing cover and/or water pump, damper, oil pan and pick-up tube may need to be reused from your original engine



## 90° ROTATING OIL FILTER ADAPTER

#### M-6880-C50

- Recommended for all pushrod crate engines in kit cars, street rods and race cars
- Fits all engines that use FL1A oil filter
- High-performance, high-flow adapter machined from billet aluminum
- Can be rotated 360°
- Inlet and outlet ports 1/2" NPT, 90° to filter pad
- Adapter only, lines, fittings and filter mount not included
- Use with M-6880-S oil filter mount



#### OIL FILTER ADAPTER M-6880-A50

- Screws into block and rotates filter toward front of engine to provide clearance for engine swaps and chassis modifications
- Fits most Ford engines that use Motorcraft FL-1A or Ford Racing M-6371-FL1A oil filter



# "PUT A FORD ON YOUR FORD"

FRPP uses the Society of Automotive Engineers (SAE) and American Society for Testing and Materials (ASTM) standards: SAE J175 and J328 for impact and fatigue testing and ASTM B368 for chrome testing. These standards define a series of tests that ensure the safety and finish of a wheel.

#### THESE TESTS ARE THE MINIMUM STANDARD USED TO DEFINE THE ENDURANCE OF FRPP WHEELS.

#### IMPACT TESTING

This test simulates a curb impact on the side of a tire/wheel assembly. During testing, a tire/wheel assembly is mounted at a 13-degree angle to a test fixture by the hub. A weight is dropped from 9 inches onto the assembly at the tire/wheel intersection. The mass of the weight is determined by a formula, using the vehicle weight.

#### DYNAMIC CORNERING FATIGUE TESTING

This test simulates lateral loads applied to a wheel by the vehicle. During testing, a wheel is clamped to a fixture by the front face and a constant bending moment is applied through the hub. A wheel of new design will run a minimum of 1,000,000 cycles before approved. The load applied is determined by a formula, using the vehicle weight.

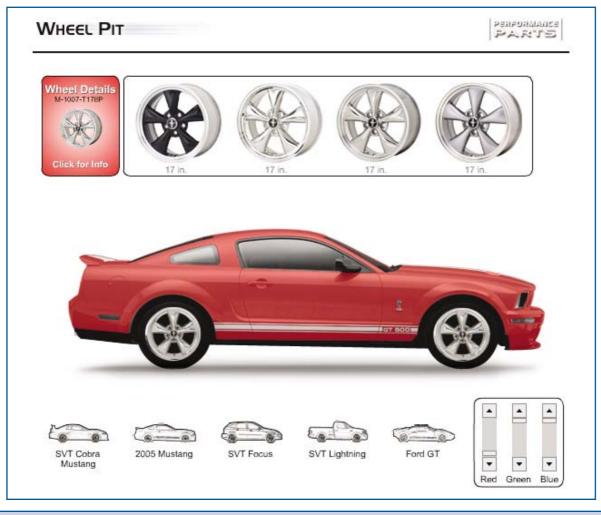
#### DYNAMIC RADIAL FATIGUE TESTING

This test simulates axial loads applied to a wheel by the vehicle. During testing, a tire/wheel assembly is mounted to an axle by the hub. A large drum drives the assembly while a load is applied perpendicular to the tire patch. A wheel of new design will run a minimum of 5,000,000 cycles. The load applied is determined by a formula, using the vehicle weight.

#### CHROME QUALITY TESTING

Copper-accelerated acetic acid-salt spray, commonly known as CASS testing, is the standard method used to test the corrosive performance of copper/nickel/chromium-plated wheels. The test is performed in a sealed chamber with a highly acetic spray directed onto the wheel for a predetermined amount of time, usually 66 hours.

#### CHECK OUT THE FORD RACING WHEEL CHANGER AT FORDRACINGPARTS.COM. SEE HOW OUR WHEELS LOOK ON YOUR RIDE.







#### 2005-06 MUSTANG GT WHEEL

- M-1007-U1885\*
- · Optional wheel on 2006 Mustang GT
- Fits all 2005-06 Mustangs
- · Silver sparkle finish
- 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 18" x 8.5" wide
- Includes Ford Racing center cap



## **2005 MUSTANG SPECIAL EDITION BLACK FINISH WHEEL**

#### M-1007-T178B\*

- Fits 2005 Mustang
- 5-lug 4.5" bolt circle
- 6.295" backspacing
- 17" x 8" wide
- Includes center cap
- · Available in 18", check website



#### MUSTANG SPINNER CAP M-1096-B

See page 13

#### 2005 POLISHED **MUSTANG GT WHEEL** M-1007-T178P\*

- Fits 2005 Mustang GT
- 5-lug 4.5" bolt circle
- 6.295" backspacing
- 17" x 8" wide
- Includes center cap

# 2005 SILVER

WHEEL

M-1007-U1885P\*

with argent inserts

• 5-lug, 4.5" bolt circle

• 6.295" backspacing

• 18" x 8.5" wide

#### **MUSTANG GT WHEEL** M-1007-T178S\*

2005-06 MUSTANG GT

· Optional wheel on 2006 Mustang GT

Fits all 2005-06 Mustangs

• Polished aluminum lip and edges

Includes Ford Racing center cap

M-1007-U1885 shown

- Fits 2005 Mustang
- 5-lug 4.5" bolt circle
- 6.295" backspacing •
- 17" x 8" wide
- Includes center cap •
- · Available in 18", check website



#### 2005 CHROME **MUSTANG GT WHEEL** M-1007-T178C\*

- Fits 2005 Mustang
- 5-lug 4.5" bolt circle • 6.295" backspacing
- 17"x 8" wide
- Includes center cap
- Available in 18", check website

**MUSTANG SPINNER CAP** M-1096-B See page 13



#### **MUSTANG SPINNER CAP** M-1096-B

See page 13





#### 2003 MACH 1 MAGNUM 500 MUSTANG WHEEL

M-1007-M178\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- · Includes center cap



#### 2003 SILVER MUSTANG COBRA WHEEL M-1007-S179\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 17" x 9" wide
- Includes center cap

#### CHROME MUSTANG MACH I WHEEL M-1007-M178C\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
  5.72" backspacing
- 5.72 backspacif
  17" x 8" wide
- Includes center cap

#### 2003 CHROME MUSTANG COBRA WHEEL

# M-1007-S179C\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle6.12" backspacing
- 6.12 backspacing
   17" x 9" wide
- Includes center cap



#### 1999 SILVER MUSTANG COBRA WHEEL M-1007-F178\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- Includes center cap



#### 1999 POLISHED MUSTANG COBRA WHEEL

#### M-1007-G178\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- Includes center cap







#### **10TH ANNIVERSARY MUSTANG COBRA** WHEEL

#### M-1007-A179\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 17" x 9" wide
- Includes center cap
- Charcoal metallic finish



#### **1995 SILVER MUSTANG COBRA "R"** WHEEL

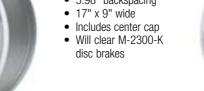
# M-1007-R58\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.98" backspacing • 17" x 9" wide
- Includes center cap
- Will clear M-2300-K disc brakes
- · Same wheel used on 1995 SVT Mustang Cobra "R"



#### SILVER FORD RACING MUSTANG **COBRA "R" WHEEL** M-1007-R50\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 17" x 9" wide
- Includes center cap



#### FORD RACING MUSTANG COBRA WHEEL

#### M-1007-A179M\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle •
- 6.12" backspacing •
- 17" x 9" wide
- Includes center cap
- Silver finish



#### **CHROME MUSTANG COBRA "R"** WHEEL

# M-1007-C58\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle ٠ • 5.98" backspacing



## **1996 CHROME MUSTANG COBRA WHEEL**

- M-1007-C178\*
- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- Includes center cap





#### 2003 CHARCOAL GRAY SPECIAL EDITION MUSTANG GT WHEEL

#### M-1007-J178\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- · Includes center cap
- **NOTE:** Charcoal gray does not match 2001-02 production Mustang

# Circle Ci

#### 2001 SILVER SPECIAL EDITION MUSTANG GT WHEEL

- M-1007-B178\*
- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- Includes center cap
- Polished wheel lip



#### 2001 CHROME SPECIAL EDITION MUSTANG GT WHEEL

#### M-1007-B178C\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
  17" x 8" wide
- Includes center cap
- Includes center cap



#### 2001 BLACK SPECIAL EDITION MUSTANG GT WHEEL

#### M-1007-K178\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- Includes center cap



#### 1998 SILVER MUSTANG COBRA WHEEL

#### M-1007-D178\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- Includes center cap



- **2001 POLISHED MUSTANG WHEEL M-1007-S178P\*** • Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.72" backspacing
- 17" x 8" wide
- Includes center cap





#### 2000 SILVER MUSTANG COBRA "R" WHEEL

#### M-1007-R189\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 18" x 9.5" wide
- Includes center cap



#### SILVER FORD RACING MUSTANG COBRA "R" WHEEL

M-1007-R54\* • Fits 1979-93

- FITS 19/9-93
   A last 4 05 ll balls
- 4-lug, 4.25" bolt circle5.15" backspacing
- 17" x 8" wide
- Includes center cap



# SILVER PONY MUSTANG

- M-1007-N167\*
- Fits 1979-934-lug, 4.25" bolt circle
- 4-iug, 4.25 boil click
  4.87" backspacing
- 4.07 backspare
  16" x 7" wide
- Includes center cap



# 2000 CHROME MUSTANG COBRA "R" WHEEL

#### M-1007-R189C\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 18" x 9.5" wide
- Includes center cap



#### CHROME FORD RACING MUSTANG COBRA "R" WHEEL

- M-1007-R54C\* • Fits 1979-93
- FILS 1979-93
   A lug A QE!! holt simple
- 4-lug, 4.25" bolt circle5.15" backspacing
- 5.15 backspacing
   17" x 8" wide
- Includes center cap



#### CHROME PONY MUSTANG WHEEL

#### M-1007-M167\*

- Fits 1979-93
- 4-lug, 4.25" bolt circle
- 4.87" backspacing
- 16" x 7" wide
- Includes center cap



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#### SILVER FORD RACING MUSTANG WHEEL M-1007-F500\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 18" x 9" wide
- Includes Ford Racing center cap
- · Cast-in Ford Racing logo



#### **BLACK FORD RACING MUSTANG** WHEEL M-1007-F500B\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 18"x 9" wide
- Includes Ford Racing center cap
- Cast-in Ford Racing logo



## **CHROME FORD RACING MUSTANG** WHEEL

# M-1007-F500C\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 18" x 9" wide
- Includes Ford Racing center cap
- Cast-in Ford Racing logo

# **MCGARD® LOCKING LUG NUT KIT**

# M-1012-K

- (16) .5"-20 thread chrome cone seat lug nuts
- (4) chrome locking lugs
- (4) chrome valve stems, pull-through style
- Uses .8125" lug wrench (not included)
- · Fits most wheel applications same as Lug Nut Kit M-1012-A listed in chart on page 32









#### FORD GT FRONT WHEEL

#### M-1007-GTF\*

- Optional front wheel available on 2005 Ford GT
- Open lug design 5-lug, 4.5" bolt circle
- 6.90" backspacing
- 18" x 9" wide
- Forged aluminum wheel





## FORD GT REAR WHEEL

## M-1007-GTR\*

- Optional rear wheel available on 2005 Ford GT • Open lug design
- 5-lug, 4.5" bolt circle
- 7.295" backspacing •
- 19" x 11.5" wide
- Forged aluminum wheel
- Includes Ford GT
- center cap



# **RANGER WHEEL**

- M-1007-R157A\* • Fits 2001-03 Ranger
- 5-lug, 114mm bolt circle4.31" backspacing
- 15" x 7" wide
- Forged aluminum wheel
- · Includes center cap



#### **MARAUDER WHEEL** M-1007-M188P\*

- Original equipment on
- 2003-04 Mercury Marauder • 5-lug, 4.5" bolt circle
- 6.295" backspacing
- 18" x 8" wide
- Forged aluminum wheel
- Includes Ford Racing • center cap



# FORD RACING RALLY WHEEL DECAL

- M-1097-A
- · Easy stick on application • 5" x 2.5"
- · Kit contains 4 decals





#### 2003 SILVER F-150 LIGHTNING WHEEL

#### M-1007-0189\*

- Fits 2000-03 and 2004 F-150 Heritage
- 14mm studs
- 5-lug, 135mm bolt circle
- 5.80" backspacing
- 18" x 9.5" wide
- Includes SVT center cap • NOTE: F-150 requires
- M-1010-L Lightning wheel steering stops

#### 1997-99 SILVER F-150 LIGHTNING WHEEL M-1007-L189\*

- Fits 1997-99
- 12mm studs
- 5-lug, 135mm bolt circle
- 5.80" backspacing
- 18" x 9.5" wide
- Includes center cap
- NOTE: F-150 requires M-1010-L Lightning wheel steering stops



#### LIGHTNING WHEEL STEERING STOPS M-1010-L

- Required when installing Lightning wheels on 1997-03 F-150 and 2004 F-150 Heritage to avoid damaging the inboard flange of the wheel
- 2 steering stops per package

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#### 2004-05 F-150 LIGHTNING WHEEL M-1007-L2010\*

- Wheel for proposed new P221 Lightning (not yet produced). Ford Racing exclusive
- Fits all 2004-06 F-150 **4WD ONLY**
- Does not fit 2004 F-150 Heritage
- Sparkle silver painted finish, with machined face
- 6-lug, 4.5" bolt circle
- 6.295" backspacing
- 20" x 9" wide
- Includes Ford Racing center cap

#### 2003 CHROME F-150 LIGHTNING WHEEL

- M-1007-0189C\*
- Fits 2000-03 and 2004 F-150 Heritage
- 14mm studs
- 5-lug, 135mm bolt circle
- 5.80" backspacing
- 18" x 9.5" wide
- Includes SVT center cap • NOTE: F-150 requires
- M-1010-L Lightning wheel steering stops



## 1997-99 CHROME F-150 LIGHTNING WHEEL

- M-1007-N189C\*
- Fits 1997-99
- 12mm studs

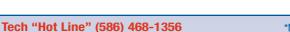
- M-1010-L Lightning wheel steering stops



#### 2000-03 CHROME F-150 LIGHTNING WHEEL

## M-1007-M189C\*

- Fits 2000-03 and
- 2004 F-150 Heritage • 14mm studs
- 5-lug, 135mm bolt circle
- 5.80" backspacing
- 18" x 9.5" wide
- Includes center cap
- **NOTE:** F-150 requires
- M-1010-L Lightning wheel steering stops



#### \*Not legal for sale or use on pollution-controlled motor vehicles. \*\*Direct replacement part.

- - 5-lug, 135mm bolt circle
    - 5.80" backspacing
    - 18" x 9.5" wide
    - Includes center cap • NOTE: F-150 requires



#### FORD RACING HARLEY-DAVIDSON 20" **CHROME TRUCK WHEEL**

- M-1007-H209A\*
- Fits 2000-03 F-150, 2000-02 Expedition and Navigator, 2004 F-150 Heritage
- 14mm studs
- 5-lug, 135mm bolt circle
- 5.70" backspacing
- 20" x 9" wide
- Includes center cap with Harley-Davidson emblem
- NOTE: Does not fit Explorer



#### FORD RACING HARLEY-DAVIDSON 20" **CHROME TRUCK WHEEL**

#### M-1007-H209\*

- Fits 2000-03 F-150, 2000-02 Expedition and Navigator, 2004 F-150 Heritage
- 14mm studs
- 5-lug, 135mm bolt circle
- 5.70" backspacing
- 20" x 9" wide
- Includes center cap with Harley-Davidson emblem
- NOTE: Does not fit Explorer

## **F-250 HARLEY-DAVIDSON** WHEEL

#### M-1007-H188\*

- Forged aluminum 5-spoke design
- Original equipment on F-250 Harley-Davidson pickup
- Fits all 1999-05 F-250/350 non dual wheel 4x2 trucks
- 8-lug, 170mm bolt circle
- 4.80" backspacing
- 18" x 8"
- · Includes center cap

# F-250/350 4X4 TRUCK FRONT FORGED WHEEL

- M-1007-U188B\*
- Forged 5-spoke desian • Fits 1999-04 F-250/350
- 4x4 front ONLY
- 8-lug, 170mm bolt circle • 4.80" backspacing
- 18" x 8"
- Includes front style center cap







#### **F-250 HARLEY-DAVIDSON** WHEEL

#### M-1007-A208\*

- Fits 2005 F250/F350 •
- 8 lug, 170mm bolt circle
- 5.80" backspacing ٠
- 20" x 8" wide •
- Includes center cap



## F-250/350 4X2 TRUCK FORGED WHEEL

## M-1007-U188A\*

- Forged 5-spoke design
- Fits 1999-04 F-250 and F-350 non dual wheel 4x2 trucks
- 8-lug, 170mm bolt circle
- 4.80" backspacing
- 18" x 8"
- Includes center cap



## F-250/350 4X4 TRUCK REAR FORGED WHEEL

#### M-1007-U188C\* • Forged 5-spoke

- desian
- Fits 1999-04 F-250/350
- 8-lug, 170mm bolt circle
- 4.80" backspacing
- 18" x 8"
- Includes rear style center cap







## FOCUS RS WHEEL

# M-1007-RS\*

- Fits 2000-04 with RS body package
- 4 lug, 4.25" bolt circle
- 6.187" backspacing (42mm offset)
- 18" x 8" wide
- Includes RS center cap
- Requires lug nut kit M-1012-RS



#### 2003 DARK ARGENT FOCUS SVT EUROPEAN APPEARANCE PACKAGE 15-SPOKE WHEEL

- M-1007-S177E\*
- Fits 2000-054-lug, 108mm bolt circle
- 5.94" backspacing
- 5.94 backspa
  17" x 7" wide
- Includes SVT center cap
- Original equipment on the 2003 Focus SVT



#### FORD RACING FOCUS RALLY WHEEL M-1007-S177G\*

- Fits 2000-05
- 4-lug, 108mm bolt circle
- 5.94" backspacing
- 17" x 7" wide
- Includes Ford Racing center cap
- Same as M-1007-S177E except painted gold



## 2004 SVT FOCUS WHEEL

- M-1007-S177A\*
- Original equipment on the 2004 SVT Focus
- Fits 2000-05
- 4-lug, 108mm bolt circle 5.94" backspacing
- 5.94" backspac
  17" x 7" wide
- Includes SVT center cap
- Includes SVI center cap



## FORD RACING FOCUS RALLY WHEEL

# M-1007-S177B\*

- Fits 2000-05
- 4-lug, 108mm bolt circle5.94" backspacing
- 5.94 backspace
  17" x 7" wide
- Includes Ford Racing center cap
- Same as M-1007-S177E except painted black



#### FORD RACING FOCUS RALLY WHEEL

#### M-1007-S177W\*

- Fits 2000-05
- 4-lug, 108mm bolt circle
- 5.94" backspacing
- 17" x 7" wide
- Includes Ford Racing center cap
- Same as M-1007-S177E except painted white





#### **16-SPOKE FOCUS TUNER** WHEEL M-1007-P45\*

- Fits 2000-05
- 4-lug, 4.25" bolt circle 5.81" backspacing
- (47mm offset)
- 17" x 7" wide
- Includes Ford logo center cap
- **Requires Tuner Wheel** Spline Drive Lug Nut Set M-1012-T



#### **5-SPOKE FOCUS TUNER** WHEEL

#### M-1007-P43\*

- Fits 2000-05
- 4-lug, 4.25" bolt circle
- 5.81" backspacing (47mm offset)
- 17" x 7" wide
- Includes Ford logo center cap
- Requires Tuner Wheel Spline Drive Lug Nut Set M-1012-T
- Cast-in Ford Racing logo

#### **CHROME SVT FOCUS** WHEEL

#### M-1007-S177C\* • Fits 2000-05

- 4-lug, 108mm bolt circle • 5.94" backspacing
- 17" x 7" wide
- Includes SVT center cap



#### WHITE SVT FOCUS WHEEL M-1007-T177W\*

- Same as M-1007-S177 except painted white
- Fits 2000-05
- 4-lug, 108mm bolt circle 5.94" backspacing
- 17" x 7" wide Includes Ford Racing center cap



- M-1007-P34\*
- Fits 2000-05 •
- 4-lug, 4.25" bolt circle 5.81" backspacing •
- (47mm offset) 17" x 7" wide
- Includes Ford loao center cap
- **Requires Tuner Wheel** Spline Drive Lug Nut Set M-1012-T
- Cast-in Ford Racing logo



## 2003 SILVER SVT FOCUS WHEEL

## M-1007-S177\*

- Fits 2000-04
- 4-lug, 108mm bolt circle •
- 5.94" backspacing • 17" x 7" wide
- Includes SVT center cap Original equipment
- on the 2003 SVT Focus



## **BLACK SVT FOCUS** WHEEL

#### M-1007-T177B\* • Same as M-1007-S177

- except painted black
- Fits 2000-05
- 4-lug, 108mm bolt circle ٠ 5.94" backspacing ٠
- 17" x 7" wide
- Includes Ford Racing
- center cap



#### TUNER WHEEL SPLINE DRIVE LUG NUT SET M-1012-T\*

- ٠ 16 12mm x 1.5mm thread chrome spline drive cone seat lug nuts
- 4 chrome locking lugs ٠
- 4 chrome valve stems, pull-through style Uses .8125" lug wrench (not included)
- Fits Focus Tuner Wheels



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# PERFORMANCE WHEELS

## FORD RACING LUG NUTS AND CENTER CAPS

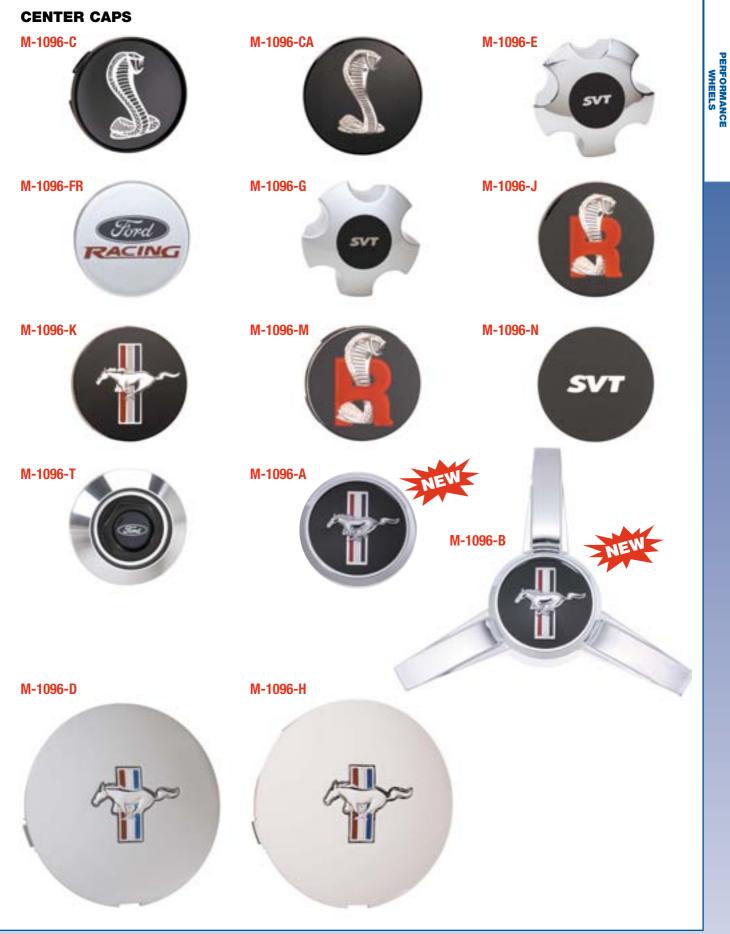
		CENTER CAPS									ı	LUG NUTS							
	M-1096-A	M-1096-B	M-1096-C	M-1096-CA	M-1096-D	M-1096-E	M-1096-FR	M-1096-G	M-1096-H	M-1096-J	M-1096-K	M-1096-M	M-1096-N	M-1096-P	M-1096-T	M-1096-U	M-1096-V	M-1096-W	
HEEL PART NUMBER	Ξ	Ξ	Ξ	Ϋ́	Ϋ́	Ξ	Ę	Ξ	M-1	Ę	Ξ	M-1	Ę	M-1	M-1	Ξ	Ξ	Ξ	LUG NUT PART NUMBER
1-1007-A179		_	0	0			0		_	0	0	_	x	_	_				M-1012-A
I-1007-A179M			0	0			X			0	0		0						M-1012-A
-1007-A208																		Х	NA
-1007-B178			0	0			0			0	Х		0						M-1012-A
-1007-B178C			0	0			0			0	Х		0						M-1012-A
-1007-C178									Х										M-1012-A
-1007-C58												X							M-1012-A
-1007-D178			X	0			0			0	0		0						M-1012-A
-1007-F178			Х	0			0						0						M-1012-A
-1007-F1810																			NA
-1007-F500			0	0			X			0	0		0						M-1012-A
-1007-F500B			0	0			X			0	0		0						M-1012-A
-1007-F500C			0	0			X			0	0		0						M-1012-A
-1007-G178 -1007-GTF			х	0			0						0						M-1012-A
																			NA
-1007-GTR -1007-H188													_						NA NA
-1007-H188 -1007-H209																х	0		М-1012-Е
-1007-H209 -1007-H209A																0	X		M-1012-E M-1012-E
-1007-J178			0	0			0			0	x		0			U	^		M-1012-E M-1012-A
-1007-5178			0	Ō			0			0	x		0						M-1012-A
-1007-L189			<b>U</b>	Ŭ			•	х		•	<u>^</u>		•						M-1012-C
-1007-L2010								~											NA
-1007-M167									х										M-1012-A
-1007-M178			0	0			0		~	0	х		0						M-1012-A
-1007-M178C			0	0			0			0	X		0						M-1012-A
-1007-M188P			0	0			X			0	0		0						M-1012-A
-1007-M189C						х					-		-						М-1012-Е
-1007-N167					x														M-1012-A
-1007-N189C						х													M-1012-C
-1007-P189C						х													M-1012-E
-1007-P34															х				M-1012-T
-1007-P43															Х				M-1012-T
-1007-P45															Х				M-1012-T
-1007-Q189								х											M-1012-E
-1007-Q189C						Х													M-1012-E
I-1007-R157A																			M-1012-F
I-1007-R189										Х	0								M-1012-A
I-1007-R189C										Х	0								M-1012-A
-1007-R50												Х							M-1012-A
-1007-R54												Х							M-1012-A
-1007-R54C												X							M-1012-A
-1007-R58												Х							M-1012-A
-1007-RS																			M-1012-RS
-1007-S177			0	0			0						Х						M-1012-T
-1007-S177A			0	0			0						Х						M-1012-T
-1007-S177B			0	0			Х						0						M-1012-T
-1007-S177C			0	0			0						Х						M-1012-T
-1007-S177E			0	0			0						Х						M-1012-T
-1007-S177G			0	0			Х						0						M-1012-T
-1007-S177W			0	0			Х						0						M-1012-T
-1007-S178P			0	0			0			0	Х		0						M-1012-A
-1007-S179			0	0			0						Х						M-1012-A
-1007-S179C			0	0			0						X						M-1012-A
-1007-T177B			0	0			X						0						M-1012-T
-1007-T177W			0	0			Х						0						M-1012-T
-1007-T178B	X	0																	M-1012-A
-1007-T178C	X	0																	M-1012-A
-1007-T178P	X	0																	M-1012-A
-1007-T178S	X	0																	M-1012-A
-1007-U1885	X	0																	M-1012-A
-1007-U1885P	X	0																	M-1012-A
-1007-U188A																			NA
-1007-U188B																			NA
-1007-U188C	1																		NA

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OPTIONS





# ENGINE DEVELOPMENT

## **ENGINE INSTALLATION AND TUNING TIPS**

Performance engine durability is dependent on several supporting systems including the cooling system, fuel delivery system, ignition system, and oiling system. If the support systems are not adequate, poor engine performance and possible engine failure could result.

#### OILING SYSTEM CONSIDERATIONS/ COMMON PROBLEMS

- Priming the oiling system before starting a new engine is crucial to engine life. This is important on initial start up of a new engine and if a used engine has not been run for extended periods of time.
- Does the oil pan have adequate capacity? Most performance vehicles require a 7 qt. minimum capacity. All engines will benefit from increased oil pan capacity.
- Does the oil pan have proper oil control baffling for the vehicle's braking, acceleration, and cornering capabilities? Road Race cars need oil control in four directions: braking, acceleration, LH cornering and RH cornering. Drag race cars need oil control in two directions, braking and acceleration. Baffles must be designed to keep oil over the pickup screen at all times.
- Is the pickup screen the proper distance from the bottom of the oil pan? If the oil pickup screen is too close to the bottom of the oil pan, it can cause cavitation. If it is too far away, it will cause the pump to draw air and minimize lubrication capacity. The pickup screen should be located .250" to .375" from the bottom of the pan. Does the design of the screen on the pickup tube create restrictions? We have seen some pickup tube screen designs that restrict oil flow as much as 75%. Wire mesh is good. Perforated metal is usually restrictive. Measure the wire size and calculate the flow area. Most aftermarket screens.
- If using a remote oil filter mount or oil cooler, make sure that all of the components are large enough to eliminate any restrictions to oil flow. Many Cobra replica kit cars use components that are too restrictive.
- Undersize oil lines commonly restrict oil flow.
- The more bends/turns in an oiling system, the more restrictions are created.
- Poorly designed remote filter mounts and adapters can create restrictions.
- Be sure that the oil cooler flows enough oil to meet the engine's requirements.
- Never reuse a used oil cooler. Debris gets trapped and cannot be cleaned out.
- Poorly designed oil filters can cause a restriction.
- Many oil systems only flow one way. Connecting the remote oil filter or oil cooler lines backwards can cause engine damage/failure.

#### IGNITION SYSTEM CONSIDERATIONS/ COMMON PROBLEMS

- The ignition system must deliver a properly timed spark. There are a lot of factors that determine when the spark should be delivered. The most common factors include: compression ratio, fuel quality, fuel octane rating, combustion chamber design, engine operating temperature, power adders such as NOS or supercharger, inlet air temp, altitude, and load.
- Avoid too much or too little timing for your engine combination.
- Avoid hooking up the vacuum advance to intake manifold vacuum instead of ported vacuum.

- Avoid inductive crossfire created by improper plug wire routing. Separate plug wires on cylinders that fire in sequence.
- Improper timing can damage pistons, rod bearings, head gaskets, and many other engine parts.
- Typical total mechanical advance timing at 4000 RPM for Ford Racing Performance Parts crate engines: 5.0L: 36° to 38°, 347/351: 34° to 36°, 392/460/514: 30° to 32°.

#### **FUEL DELIVERY CONSIDERATIONS**

- Size of fuel pump, size of fuel line, fuel pump placement, fuel filter placement, fuel filter size, injector size, fuel rail size, fuel pressure, jet size, and baffling in the fuel tank.
- Does the fuel system maintain full pressure at peak engine horsepower in high gear?

Altitude, air temperature, and fuel characteristics including quality, specific gravity, and octane rating, will affect your jetting requirements. Engine efficiency and Brake Specific Fuel Consumption (BSFC) also have an effect. Here are some examples of a Holley 750 CFM 4V.

Octane	Temp.	Altitude	Jetting Front	Jetting Rear
94	80 F	0 ft.	81	86
Aviation 100LL	80 F	0 ft.	81	84
110 Race	80 F	0 ft.	78	83
94	80 F	3000 ft.	76	81
94	80 F	6000 ft.	73	77
94	40 F	0 ft.	84	89
94	120 F	0 ft.	78	83

As you can see by these examples, jet requirements can vary a lot depending on fuel, altitude, and temperature. Oxygenated fuels are available in some states and can dramatically affect your jetting requirements. Make sure you get your jetting correct. Aviation fuel is lighter and will require richening an engine in relationship to its requirement with pump gas. We have found in the dyno testing of our crate engines that 1 point richer on air/fuel ratio equals only a few percent less power. Running an engine as lean as possible produces the best power but also increases combustion temperatures and the chances of engine damage.

#### COMMON PROBLEMS WITH FUEL DELIVERY SYSTEMS

- Do not mount an EFI electric fuel pump so it has to draw fuel from the tank. This creates negative pressure in the fuel line allowing the fuel to boil at a lower temperature.
- The pump must be mounted in the tank or in a location so that it is gravity fed.
- If the fuel rail is too small and you have large injectors, this can create a pulse in the fuel rail allowing fuel starvation on some cylinders.
- Fuel should be pushed through the fuel filter. Pulling fuel through a filter can cause cavitation. If a filter is to be used on the inlet of a rail-mounted fuel pump, a filter rating of 160 microns MINIMUM should be used.
- It takes approx. 1/2 lb. of gasoline to support 1 HP. This is commonly referred to as a .5 BSFC. You should always err in the safe direction of larger when sizing your injectors and fuel pump.

#### COOLING SYSTEM CONSIDERATIONS/ COMMON PROBLEMS

- Higher horsepower requires more cooling capacity.
- When the fill point of the cooling system is not the highest point, air pockets are created. The air pockets then create hot spots, and the hot spots promote improper combustion, which can cause engine failure.
- Improper pulley size makes the fan and water pump turn too slow or too fast. Production water pumps are normally run at 20% over engine speed and do not perform well over 5000 engine RPM. Underdrive pulleys generally reduce water pump speed to 85% of engine RPM and may not provide enough water flow to cool the engine.
- The radiator must have enough area to dissipate the heat being generated by the engine.
- If the fan size is too small, it will not move enough air across the radiator so it can properly dissipate the heat being generated. Fan shrouds increase the effectiveness of the fan significantly.
- Radiator location can affect airflow through the radiator at different vehicle speeds.

#### FLYWHEEL, CONVERTER AND TRANSMISSION PROBLEMS

- Installing the wrong flywheel for the balance factor of the engine will cause vibration and eventually damage the engine.
- Wrong length input shaft or "stack-up height" can force the crank forward, damaging the engine thrust bearing.
- Improperly installing the torque converter can force the crank forward, damaging the engine thrust bearing. This is most commonly caused by improperly locating the torque convertor drain plug in the flexplate.
- If the torque converter balloons, it can force the crank forward, damaging the engine thrust bearing and the transmission. Most high-performance torque converters have anti-ballooning features.
- Damage to the thrust bearing can happen in seconds!

#### MISCELLANEOUS PROBLEMS THAT CAN DAMAGE A ENGINE

- Dropping nuts, bolts, washers or foreign materials down the intake. We have seen this more than once.
- Reusing an intake off an engine that had broken parts in a cylinder. The parts can get bounced up into the intake manifold, carburetor or air cleaner (pieces of piston, or piston rings etc.). When you put your used intake on your new engine and start it, the pieces are drawn in and damage your engine.
- Bead-blasting an EFI intake. You will NEVER get all of the blasting media out. When the engine is started, it draws the blasting media into the cylinders, destroying the engine.
- Improperly torquing fasteners when installing new parts to your engine. Over-torquing of the intake manifold bolts to the cylinder head on 302 and 351W engines can cause head gasket sealing problems.
- Installing distributor gears at the incorrect height, and gears made of the wrong material. We have seen this a lot on remanufactured distributors as well as popular aftermarket manufacturers of distributor assemblies. Use cast iron gears for cast iron flat tappet cams, and steel gears for steel hydraulic roller cams.



### **CRATE ENGINE DEVELOPMENT PROCESS**

All great crate engines start as an idea. The engineer begins with a horsepower target and the engine family for hitting that target. Then, the engineer documents the components that will likely achieve targeted horsepower and meet durability requirements. This procedure is based on years of experience in the high-performance engine building business. Many formulas also support this process. Next, the engineer has one or more development engines built and sent to the engine dynamometer lab for break-in and testing. During dyno-testing, fuel distribution, best cam timing, and best ignition timing for maximizing horsepower and torque is assessed. If target performance numbers are not met—or can be improved—changes are made accordingly. Oftentimes, different carburetors, camshafts, intake manifolds and cylinder heads are evaluated. After target numbers are reached, the engine is run for durability. Durability testing is based on the market application of the engine. Various durability tests may be run—sometimes as severe as 50 hours at wide open throttle, full power. Others may be cycling tests where the engine accelerates from peak torque to peak power, then decelerates back to peak torque, then repeats the cycle for many hours. The tests selected vary depending on the market application. Upon successful completion of durability testing, the engine package is released for production.

CRATE ENGINE Part Number	M-6007-XE3M	M-6007-XB3M	M-6007-Z50E	M-6007-Z50Z	M-6007-C347	M-6007-Z351
Displacement	302	302	302	302	347	351
Horsepower	340	345	360	390	450	410
Torque	310 ft./lbs.	305 ft./lbs.	330 ft./lbs.	360 ft./lbs.	400 ft./lbs.	417 ft./lbs.
Compression Ratio	9.0:1	9.0:1	9.0:1	10.0:1	9.7:1	9.0:1
Heads	X303 GT-40	X303 GT-40	Z304A High Flow	Z304A High Flow	Z304A High Flow	Z304A High Flow
Camshaft	E303 Hyd. Roller Cam	B303 Hyd. Roller Cam	E303 Hyd. Roller Cam	Z303 Hyd. Roller Cam	Crane Hyd. Roller Cam	Z303 Hyd. Roller Cam
Crank	3.00" Stroke Cast	3.00" Stroke Cast	3.00" Stroke Cast	3.00" Stroke Cast	3.40" Stroke Forged	3.50" Stroke Cast
Piston	4.000" Hypereutectic	4.000" Hypereutectic	4.000" Forged	4.000" Forged	4.030" Forged	4.000" Forged
Intake	No Intake	No Intake	No Intake	No Intake	Victor Jr.	Victor Jr.
Distributor	No Distributor	No Distributor	No Distributor	No Distributor	Billet Distributor	Billet Distributor
Valve Cover	M-6000-K302R	M-6000-K302R	M-6582-R302	M-6582-R302	M-6582-E302P	M-6582-E302P
Oil Pan	Production	Production	Production	Production	Canton 7gt.	Production
Water Pump	Serpentine Belt	Serpentine Belt	V Belt	V Belt	V Belt	V Belt
CRATE ENGINE PART NUMBER	M-6007-D351FT	M-6007-D351RT	M-6007-J58	M-6007-S58	M-6007-D392FT	M-6007-D392RT
Displacement	351	351	351	351	392	392
Horsepower	385	385	240	250	430	430
Torque	377 ft./lbs	377 ft./lbs	n/a	n/a	450 ft./lbs.	450 ft./lbs.
Compression Ratio	9.0:1	9.0:1	8.5:1	8.5:1	9.7:1	9.7:1
Heads	X305 GT-40	X305 GT-40	Production Cast Iron	Production Cast Iron	X303 GT-40	X303 GT-40
Camshaft	Z303 Hyd. Roller Cam	Z303 Hyd. Roller Cam	Standard Hyd. Cam	Standard Hyd. Cam	Crane Hyd. Roller Cam	Crane Hyd. Roller Cam
Crank	3.50" Stroke Cast	3.50" Stroke Cast	3.50" Stroke Cast	3.50" Stroke Cast	3.85" Stroke Cast	3.85" Stroke Cast
Piston	4.000" Forged	4.000" Forged	4.000" Hypereutectic	4.000" Hypereutectic	4.030" Forged	4.030" Forged
Intake	Victor Jr.	Victor Jr.	2V Aluminum	FRPP Dual Plane	Victor Jr.	Victor Jr.
Distributor	Billet Distributor	Billet Distributor	Ford Duraspark	Ford Duraspark	Billet Distributor	Billet Distributor
Valve Cover	M-6582-E302P	M-6582-E302P	Production	M-6582-E302P	M-6582-E302P	M-6582-E302P
Oil Pan	7gt. Front Sump	7gt. Rear Sump	Full Sump	Full Sump	7qt. Front Sump	7gt. Rear Sump
Water Pump	Both	Both	V Belt	V Belt	Both	Both
CRATE ENGINE PART NUMBER	M-6007-C392FT	M-6007-C392RT	M-6007-F460FT	M-6007-F460RT	M-6007-D514RT	M-6007-E514FT
Displacement	392	392	460	460	520	520
Horsepower	475	475	550	550	625	Check website
Torque	495 ft./lbs.	495 ft./lbs.	545 ft./lbs.	545 ft./lbs.	600 ft./lbs.	Check website
Compression Ratio	10.0:1	10.0:1	10.5:1	10.5:1	9.8:1	9.8:1
Heads	Z304A High Flow	Z304A High Flow	SCJ Super Cobra Jet	SCJ Super Cobra Jet	SCJ Super Cobra Jet	SCJ Super Cobra Jet
Camshaft	Hyd. Roller Cam	Hyd. Roller Cam	C460 Hyd. Cam	C460 Hyd. Cam	A514 Mech. Roller Cam	C460 Hyd. Cam
Crank	3.85" Forged	3.85" Forged	3.85" Stroke Cast	3.85" Stroke Cast	4.30" Stroke Cast	4.30" Stroke Cast
Piston	4.030" Forged	4.030" Forged	4.390" Hypereutectic	4.390" Hypereutectic	4.390" Forged	4.390" Forged
Intake	Victor Jr.	Victor Jr.	Performer RPM	Performer RPM	Victor Jr.	Torker II
Distributor	Billet Distributor	Billet Distributor	Billet Distributor	Billet Distributor	Billet Distributor	Billet Distributor
			M-6582-C460	M-6582-C460	M-6582-C460	M-6582-C460
Valve Cover	M-6582-F302P	MI-6587-E307P				111 いいいて いせいい
Valve Cover Oil Pan	M-6582-E302P 7gt. Front Sump	M-6582-E302P 7gt. Rear Sump	7gt. Front Sump	7qt. Rear Sump	7qt. Rear Sump	7qt. Front Sump

# CRATE ENGINE BUILD-UP

At Ford Motor Company, "Quality is Job 1" and that extends to every facet of the business, including crate engines from Ford Racing Performance Parts (FRPP). Ford Racing crate engines are built with quality components, undergo rigorous testing both on a dyno and at the track, and are assembled to exacting tolerances. FRPP crate engines begin with many new components, including rods and pistons, cylinder heads and the finest gaskets and seals available. Only after everything is assembled to Ford's strict standards do the FRPP crate engines earn the right to wear the Ford Oval.

To help illustrate FRPP's commitment to excellence, we walked through and photographed the crate engine assembly line to showcase some of the many steps that FRPP engines go through to ensure that customers receive one of the highest quality crate engines on the market.



Crankshafts are checked for proper journal dimensions, as well as run-out, taper and rotational eccentricity.





After the crank is polished, the surface is checked to make sure that it meets or exceeds FRPP requirements.



The crate engine building process employs the very latest computer-controlled boring equipment.



Block decks are machined to ensure even height and parallelism, then the RA of the finished surface is checked.





Finish-honing is done by a computer-controlled cylinder hone using diamond stones; the final step is plateau honing.



To ensure accuracy, computerized checks of every 5th camshaft are done.



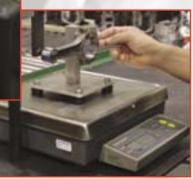
Every piston gets measured and weighed before they are put together in matched sets using strict tolerances.



To ensure accuracy of compression ratios of the sealed crate engines (M-6007-D347/M-6007-Z351S), combustion chamber volumes are checked and corrected, if necessary, to achieve proper specifications.



Connecting rods are inspected to make sure they meet specifications. The bearing bore is studied for taper, bore size and roundness. Then, weight is



checked at the big and small end of the connecting rod and sets are weight-matched.



After engines are completely assembled, they are hot-tested (except M6007-XE3M/ M-6007-XB3M) to check oil pressure and detect water leaks. The completed engines are run for approximately 20 minutes during this process.

THE PROCEDURES HIGHLIGHTED ABOVE SERVE TO ILLUSTRATE THE RIGOROUS CONTROLS THAT GO INTO BUILDING FRPP'S HIGH-QUALITY PUSHROD CRATE ENGINES.

# **"CAMMER" ENGINE**

Not long ago, the term "dual over-head cam engine" was reserved for the high-tech racing community. Although the DOHC technology employed in mainstream production engines is almost commonplace today, the technical procedures to machine and assemble a modern DOHC engine are rather complex.

Compared to the Windsor-based Ford V-8 engine family, the modular four-valve engines require greater attention to detail regarding machining, torque sequences, and number of fasteners (i.e. the overall complexity of the assembly process itself). The following photographs offer an inside look at the build of a 4.6-liter dual overhead cam V-8 down the same line as the 5.0 "Cammer."



A CNC machine is used to bore the cylinders on center, deck the block, and chamfer the tops of the cylinder bores.



Finish-honing of the cylinder bores is accomplished via a Gehring CNC hone.

After honing, all cylinder bores are inspected for concentricity and final finish.





Cylinder heads are checked with 27.5 inches of vacuum to ensure the integrity of valve sealing.



The main bearing cap bolts are torqued down to spec by an automated torquing machine.



CRATE



After the short block is completed, the rotating effort is checked to verify proper assembly tolerances.



Spin-testing facilitates checking for compression, oil pressure, oil flow, and effort to turn the long-block assembly.



Vacuum is also applied to the crankcase to check for any air leaks.



Engine oil has a dye added to it that shows up under black light to reduce the possibility of undetected leaks.



Long-block coolant passages are air-pressure checked to make sure there are no leaks in the block, heads, or gaskets.



As a final step, engine assemblies are run for 20 minutes to inspect for oil and water leaks and to check oil pressure.

The Ford Racing Performance Parts "Cammer" motor is the ultimate high-performance derivative of the Ford 4.6-liter engine. Others might make 5.0-liter modular engines, but only FRPP engines are backed by the Ford Oval. Whether you want a FRPP 5.0-liter "Cammer" for the performance, the exclusivity, or the looks, Ford know-how is with you every step of the way. And with 100 years of racing success behind it, that means you are getting the very best!

# PLATFORMS

Most Mustang enthusiasts are familiar with what is commonly referred to as a "Fox-Body" Mustang. The term refers to the platform that the car was built on. Of course, other cars were built on this platform as well, such as Thunderbirds and Fairmonts!

In recent years, we have tried more diligently to describe vehicles simply by their model year, which works fairly well but really misses some of characteristics of mid-year changeovers. F-series, for example, had a 2004 model built on both the old truck platform and on the new one.

We know Ford Racing fans like to become intimately familiar with their vehicles, so here are some platform names you may or may not have heard of. We throw them around the office when talking about parts and ideas, so we thought you might like to have them available as well.

**Fox:** 1979-93 Mustang, what more can we say. The car that solidified the legend of racing a five-oh.



**SN95:** 1994-04 Mustang. Major changes in 1996 for the modular engine family, and again in 1999 with the edgier body lines.



**S197:** 2005 and up Mustang. This platform was originally derived form the DEW98 platform that is used on the latest Thunderbird and Lincoln LS. DEW stands for D/E size car Worldwide. Thus the Mustang is a D/E sized car.



**C170:** Focus. This platform was designed from day one to be very stiff to allow a competitive vehicle platform in World Rally competition. Due to restrictions for WRC, the car had to have some inherent designs that would lend it well to a race car. The Focus in stock form has more chassis stiffness than the race-prepared Escort chassis it replaced.



**MN12:** 1989-98 Thunderbird, Cougar, Lincoln Mark VIII. While we offer only a few components for this platform, there are still many on the road. The Mark VIII has an engine that bears strong resemblance to the naturally aspirated Cobra engines.



**PN96:** 1996-04 F-150. The curved body style F-150 came on board, while the older boxier truck was phased out. As with all F-series, this truck sold especially well and there are literally millions on the road. The pinnacle of performance for the F-150 owner is the SVT Lightning, which we have an all-new supercharger swap kit for.



**P221:** 2004 and up F-150. This new truck is the quietest and most comfortable riding pickup you can buy. While there is no Lightning for this generation of truck, there are parts from FRPP to make your new P221 perform like one.



**CD338:** 2006 and up Fusion, Mercury Milan, and Lincoln Zephyr. Expect great things from this new platform, as it shares many characteristics with its sporty cousin the Mazda 6.



**Panther:** 1979 and up Crown Victoria and Mercury Grand Marquis. The Panther platform has long been a favorite of police and of the Bondurant school for instructor cars. The Mercury Marauder was styled after the Bondurant school cars and became the Panther platform's top performing car with a 4.6L 4valve engine.





## 2003 MUSTANG MACH1 4.6L DOHC 4V ENGINE ASSEMBLY

### M-6007-M146\*

- Complete engine assembly from the dual bore throttle body to the oil pan
- 305 HP @ 5800 RPM, 320 ft./lbs. of torque @ 4200 RPM
- Great for high-tech street rods and custom built cars
- Premium fuel required
- Direct replacement for 2003 Mustang Mach 1 engine
- · Steel 8-bolt crankshaft
- Calibration code 3G-301-AA

See Also ...

- Crate Engine Build-Up
- "Cammer Engine" Build-Up
- Crate Engine Warranty
- Engine Tips & Specs
- Crate Engine Catalog



# 5.0L "CAMMER" MODULAR CRATE ENGINE ASSEMBLY

### M-6007-T50EA\*

The 5.0L DOHC 4-valve "Cammer" engine is an upgraded variant of the 4.6L DOHC 4-valve Mustang Cobra engine, with numerous changes for improved power and durability. This engine is completely electronically managed. As part of the "Cammer" crate engine program, a stand-alone harness and engine management computer will be available separately. This will allow the engine to be used for many applications.

With proper headers (not included) and low restriction air intake and vehicle exhaust systems, the engine will exceed 400 Bhp and have a very broad torque curve, peaking over 365 ft./lbs.

Among the many features of the 5.0L Cammer are:

- Variable geometry long/short runner, magnesium intake manifold assembly
- All new Ford Racing 356 alloy aluminum block, specifically designed for this 5.0L engine program
- Ford Racing high-flow cylinder heads
- Ford Racing 12mm lift camshafts with unique valves, springs and rocker arms
- High-strength racing connecting rods
- Forged pistons with 11:1 compression ratio (nominal)
- Complete with power steering pump, alternator and air conditioning compressor
- Photo and specs may vary

This assembly is basically a package of the high-performance modular DOHC 4-valve components being offered in the Ford Racing Performance Parts Catalog. These parts are currently in use as the core for a number of widely varying race engine applications. Modular 4.6L and 5.0L DOHC 4-valve engines have been successfully used in drag racing, circle track and road racing. Further component development takes place on a continuous basis at Ford Racing, and will result in ever-expanding parts availability for this engine family.

See Also ... Crate Engine Build-Up

"Cammer Engine" Build-Up Crate Engine Warranty Engine Tips & Specs Crate Engine Catalog

For additional modular engine applications, see www.fordracingparts.com



### Did you know...

The new Ford GT head is a derivative of the 2000 Cobra R head. Those same heads have been used on the Rough Rider off-road racing program to make nearly 700hp out of 6 liters naturally aspirated!

# **SUPERCHARGERS**

### 2003-04 MUSTANG COBRA UPGRADED SUPERCHARGER KIT

### M-6066-CT46\*

- Kit includes supercharger, supercharger inlet, manifold adapter plate and hardware kit
- Designed for use with factory twin bore throttle body!
- Does not require fuel pump or MAF meter upgrades
- Simple bolt on increase at the rear wheels of 85 horsepower and 50 ft./lbs. of torque
- Installation of this kit will void your new vehicle engine warranty
- Designed by Ford Racing and Whipple engineers ٠
- · For additional applications, see www.fordracingparts.com



### 2003-04 MUSTANG COBRA UPGRADED SUPERCHARGER KIT WITH AFTERMARKET THROTTLEBODY M-6066-CT46HP\*

- · Designed for use with most aftermarket single blade oval bore throttle bodies
  - For applications using factory twin bore throttle body, use M-6066-CT46
- Kit includes supercharger, supercharger inlet, manifold adapter plate and hardware kit
- Requires PCM, fuel pump and MAF meter upgrades
- Simple bolt-on supercharger assembly
- Installation of this kit will void your new vehicle engine warranty
- Designed by Ford Racing and Whipple engineers
- For additional applications, see www.fordracingparts.com



### **AIR TO AIR INTERCOOLER** M-6775-G540\*

- · Requires modification for use. NOT a bolt-in kit
- Overall dimensions: 39" x 18" x 2.5" ٠
- 3" inlet and outlet •
- Core size: 30" x 18" x 2" ٠
- Frontal cooling area 540 sq. in.
- Composite end tanks
- Aluminum core can be customized

### 2003-04 MUSTANG COBRA UPGRADED POLISHED SUPERCHARGER KIT M-6066-CT46P\*

- Same as M-6066-CT46, but polished
- Designed for use with factory twin bore throttle body! • Kit includes polished supercharger and supercharger inlet, manifold adapter plate and hardware kit
- Does not require fuel pump or MAF meter upgrades
- Simple bolt on increase at the rear wheels of 85 horsepower and 50 ft./lbs. of torque
- Installation of this kit will void your new vehicle engine warranty
- Designed by Ford Racing and Whipple engineers
- · For additional applications, see www.fordracingparts.com



### 2003-04 MUSTANG COBRA UPGRADED POLISHED SUPERCHARGER KIT WITH AFTERMARKET THROTTLEBODY M-6066-CT46PHP\*

- Same as M-6066-CT46HP, but polished
- · Designed for use with most aftermarket single blade oval bore throttle bodies
  - For applications using factory twin bore throttle body, use M-6066-CT46P
- Kit includes supercharger, supercharger inlet, manifold adapter plate and hardware kit
- · Requires PCM, fuel pump and MAF meter upgrades
- Installation of this kit will void your new vehicle engine warranty
- Designed by Ford Racing and Whipple engineers
- · For additional applications, see www.fordracingparts.com





# ENGINE BLOCKS



### **ALUMINUM 5.0L ENGINE BLOCK** M-6010-T50\*

- Big bore 4.6L aluminum block with cast in iron liners
- 94mm (3.70") cylinder bore size. Stock cylinder bore size 90.2mm (3.552")
- 227mm (8.9370") deck height (same as 4.6L)
- Produces 5.0L displacement when used with a 4.6L stock stroke crankshaft, stock length connecting rods and custom 94mm diameter pistons
- Cross bolted main bearing caps
- Same block that is used in the 5.0L "Cammer" crate engine



### **ALUMINUM 4.6L ENGINE BLOCK** M-6010-A46\*

- Production replacement 4.6L SOHC 2V aluminum cylinder block
- Great for custom engine builds •
- Fully machined 1L2E casting



### **CAST IRON 4.6L ENGINE BLOCK**

M-6010-D46\*\* Romeo Engine Plant M-6010-W46\*\* Windsor Engine Plant

- Production replacement 4.6L SOHC 2V cylinder block
- Great for custom engine builds
- · Fully machined
- Cast iron
- Less expensive than remachining a used block



# 5.0L DOHC BLOCK SPREADER

### M-6015-T50

• The block spreader is designed to allow damage free installation of the main caps on the M-6010-T50 block.



### **REPLACEMENT SLEEVE FOR M-6010-T50** M-6055-B\*

- Stock size sleeve for M-6010-T50
- Requires old sleeve be machined out
- · Oversize sleeve not available and not recommended

### **ALUMINUM 5.4L ENGINE BLOCK** M-6010-GT\*\*

- Original equipment for the 2005 Ford GT supercar
- 356-T6 aluminum casting with cast iron sleeves
- 90.2mm bore

٠

- Dry sump machined, can be machined for wet sump
- Enhanced bulkhead and main webbing strength compared to production • 4.6L aluminum block
- Machined for piston oil squirters
- Block modifications required for starter in non GT applications
- Weight: 110 lbs.



### **CAST IRON 5.4L ENGINE BLOCK**

- M-6010-M54\*\* • Production 5.4L block
- · Windsor-style main cap locators
- 90.2mm bore size
- Newer casting design features lower-end improvements to minimize noise, vibration and harshness



COMPONEN

# **CYLINDER HEADS**

# FORD RACING HIGH-FLOW 4.6L DOHC 4V MUSTANG COBRA CYLINDER HEADS

M-6049-T46\* Bare Head RH

M-6050-T46\*

\* Bare Head LH

These are the same heads that are used on the Ford Racing Performance Parts "FR500" Mustang. This project car has been featured in *Muscle Mustangs* and *Fast Fords Magazine, Car & Driver Magazine* and *5.0 Mustang Magazine.* 

- Fits 1999-04 4.6L DOHC 4V Mustang Cobra
- Fits 1996-98 4.6L DOHC 4V Mustang Cobra with a production 1999-01 Cobra intake or Ford Racing Performance Parts intake manifold M-9424-DP50 or M-9424-T46
- Improved high-flow port design. Air flow increased approximately 20% intake and 15% exhaust over production heads
- Can be used with stock 1999-04 or Ford Racing intake and exhaust manifolds
- Can use stock cams, valves, springs, retainers and followers
- Best performance when used with Ford Racing Performance Parts high-lift cams, performance valves, springs, retainers and followers
- Approximately 60 HP increase when used with Ford Racing Performance Parts camshafts, intake system, headers, free flow exhaust and recalibrated computer
- M-9430-E464/E465 headers recommended



### HIGH-PERFORMANCE CYLINDER HEAD

**M-6049-D46** Complete 1996-98 Only Add approximately 35 HP over production 4.6L SOHC heads. This cylinder head



assembly is considered to be the basic cornerstone for increased performance of the naturally aspirated engine. The primary design goal for the head is to provide increased airflow capability resulting in significant horsepower gain. Specific design features include:

- Bolt-on interchangeability with the production head. All head faces (cam cover, intake manifold, exhaust manifold, and deck face) are identical to production. The head can be used with production or Ford Racing intake and exhaust manifolds, and all other accessories in production position.
- Larger inlet and exhaust valve size. Intake valve M-6507-D461 diameter has increased from 44.5mm to 46.83mm. Exhaust valve M-6505-D461 diameter has increased from 34.0mm to 35.88mm. Extensive flow development was done to optimize port contours to

take advantage of these changes. Final test results show approximate airflow increases over production of 27% (intake) and 44% (exhaust). The above results are at maximum production valve lift (12mm).

- Intake valve centerline has been moved 2.0mm closer to chamber centerline. This has the effect of unshrouding the intake valve, and making better use of the increased valve size.
- Potential for high-lift camshafts, larger valve springs, and additional racing port work at customer discretion.
- Excellent quality chamber and port finish, 356-T6 aluminum casting.
- Suggest use of engine management processor for proper function and best performance on premium no-lead fuel (see below).
- 51cc combustion chamber
- Uses spark plug AGSF-32-C **NOTE:** Use of M-6067-D46 head changing kit recommended.



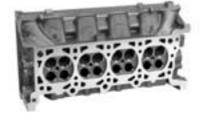
#### FORD GT CYLINDER HEAD ASSEMBLY

M-6049-GT\*\* RH

M-6099-GT\*\* LH



- GT heads feature a reduced size lash adjuster allowing for a raised intake port, creating a more direct intake path
- These heads are the final revision of the 2000 Cobra "R" heads
- The most durable highest-flowing modular engine cylinders heads available
- Bare head used on M-6007-R50 Grand Am cup race engine
- Fully loaded assembly
- 37mm intake valves, 32mm exhaust valves
- Intake valve lift: 11.2mm, exhaust valve lift: 11.5mm



### 4.6L POWER IMPROVEMENT (PI) CYLINDER HEADS M-6049-P46\*\* RH

- M-6049-P46\*\* RH M-6050-P46\*\* LH
- Current production 4.6L SOHC 2V Romeo engine aluminum cylinder heads
- Fully machined and assembled with production Mustang GT valvetrain and camshaft
- Great for custom engine builds
- Less expensive than replacing valvetrain and remachining a used cylinder head
- Less expensive alternative to aftermarket performance heads
- Can be used on 1996-98 engines with additional modifications and parts
- 43.9 +/- 1.5cc
- Raises compression on 1996-98 engines to 10:1



M-6050-P46 shown



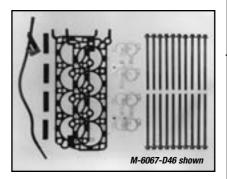


### CYLINDER HEAD CHANGING KIT

M-6067-D46\*\* SOHC 2V M-6067-T46\*\* DOHC 4V① Contains all components necessary for changing cylinder heads on 1996-04 4.6L Mustang. Includes several parts that make this task significantly easier. Highly recommended when installing M-6049-D46/P46/T46 cylinder heads. NOTE: ① Except supercharged engines.

#### CAMMER 5.0L HEAD CHANGING KIT M-6067-T50\*

- Similar to kit M-6067-T46 but for "Cammer" 5.0L modular engine with 94mm bore
- Contains head gaskets, spacers, head bolts, exhaust gaskets, and dipstick tube
- Highly recommended for simplifying a difficult task
- Same components used on M-6007-T50EA



#### PRODUCTION VALVE TRAIN PACKAGE M-6500-T46\*

This package provides new production valves, springs, and seals. It is intended for application to the high-performance cylinder heads if the High-Lift Camshaft Kit is not used. This gives the purchaser an easy alternative to re-using old components to assemble the new heads.

#### HIGH-LIFT 4.6L VALVE SPRINGS M-6513-T46\* Sold in sets of 32

- M-6513-T46\* Sold in sets of 32
   Replacement springs for the M-6550-T46 high-lift cam kit
- Recommended install height 39.45mm

#### SUPERCHARGER BELT M-8620-S461\*

Replacement belt for the M-6066-D46/E46/ M462/M463 Supercharger Kit. Premium materials provide maximum durability.

### HIGH-LIFT CAMSHAFT KIT M-6550-T46\*

In order to maximize the performance potential of the high-flow cylinder heads, we recommend these higher lift camshafts. Contained in the kit are all components necessary to utilize these improved profiles (including valves and springs). These camshafts provide excellent power right to the fuel cutoff at 7000 RPM, and actually bolster low-end torque as well. Drivability on the street is superior to production cams. Because it is necessary to install new valves with these cams, it is recommended that this kit be purchased and installed at the same time as the cylinder heads. Cam specs: lift 12mm, intake duration 258°, exhaust duration 254°, 109° center line.



### 4.6L DOHC 4V FRPP VALVE

#### M-6505-T46\* Exhaust M-6507-T46\* Intake

- Same valves used in the M-6550-T46 Camshaft Kit
- Exhaust valve head diameter 30.0mm, total length 116.2mm, tip length 7.5mm
- Intake valve head diameter 37.0mm, total length 135.7mm, tip length 12.7mm



## SUPERCHARGER MANIFOLD ASSEMBLY

### M-6066-M462\*

- Fits 1996-98 Mustang (Supercharger only. Installation hardware kit required.)
   M-6066-M463\*
- Fits 1996-98 Mustang with 1999 and up Power Improvement heads. Fits 1999 and up with correct hardware kit



M-6066-M462 shown

### SUPERCHARGER INSTALLATION HARDWARE KITS

M-9066-M461\* 1996-97 Mustang GT (Manual Transmission)

- M-9066-M462\* M-9066-M463\*
  - 1996-97 Mustang GT (Auto Transmission)
  - 1998 Mustang GT (Manual Transmission) ①
    - **NOTE:** ① Not compatible with California or "Green States" emission equipped vehicles. Call the Tech "Hot Line" for help.
- This positive displacement "Roots" type supercharger provides instantaneous throttle response and tremendous mid-range torque.
- 6 psi boost pressure gives a 55-horsepower increase over production levels, and does not require aftercooling (4.6L SOHC only).
- Unique one-piece supercharger housing/intake manifold design results in a very compact, rigid assembly.
- Quiet, durable supercharger design with a lengthy, proven record in automotive application.
- The space-efficient design allows the entire package to be installed with no hood or engine compartment sheet metal modifications. Production shock tower brace is retained.
- All kit components are of highest original equipment quality levels, and thorough step-by-step installation instructions are included.
- This kit is designed for use with production engine, requiring only the intake manifold to be changed. No internal modifications are necessary.
- All required fuel system parts are supplied in hardware kit. Including high-capacity fuel pump and 30 lb./hr. injectors.
- Requires an engine management computer unique to this application, which is included in hardware kit.

NOTE: Requires premium no-lead fuel.

# ENGINE COMPONENTS

### **1996-98 MUSTANG COBRA INTAKE MANIFOLD** ASSEMBLY

M-9424-T46\*

- · Kit offers substantial improvement in both low- and high-RPM performance
- · Variable Geometry design, which changes the runner length according to the RPM of the engine
- Long runner setting at low RPM flattens the torgue curve and overcomes the lack of low-end torque common on 4V engines

THE THE

- Short runner setting promotes high RPM power
- Fits FR500 heads or 1999-04 4V production heads
- Throttle body location is correct for 1996-98 Mustang
- Cast from magnesium alloy • for lowest possible weight
- Computer not included. • For 1996-97 Mustang Cobra applications use computer M-12650-T467. Ford 1998 Mustang Cobra applications use computer M-12650-T468
- · Kits includes air meter, injectors and fuel rails

### **HIGH-FLOW INTAKE MANIFOLD BASE KIT** M-9424-E46\*

• Fits 1996-98 Mustang GT (Intake Manifold only-installation hardware kit required)



### **INTAKE MANIFOLD ASSEMBLY** M-9424-DP50\*

- · Kit offers substantial improvement in both low- and high-RPM performance
- Daytona Prototype racing version of M-9424-T46
- Variable Geometry design, which changes the runner length according to the RPM of th engine
- Long runner setting at low RPM flattens the torque curve and overcomesthe lack of low-end torque common on 4V enaines
- Short runner setting promotes high RPM power
- Fits FR500 heads or 1999-04 4V production heads
- Throttle body location is correct for 1999-01 Mustang Cobra
- Cast from magnesium alloy for lowest possible weight
- Ideal for road racing applications
- Kit includes runner length change actuator
- Computer, air meter,
- injectors and fuel rails not included

**INTAKE MANIFOLD INSTALLATION HARDWARE KIT** 

M-9444-D46\* 1996-97 Mustang GT (Auto and Manual Transmission) M-9444-E46\* 1998 Mustang GT

NOTE: High-performance computer recommended.

- All new three-piece aluminum casting with tuned runner, rear entry plenum design. Basic runner and plenum geometry are based on extensive dynamometer testing and, when installed with the previously described high-performance cylinder heads, they create an optimized induction system.
- The manifold primary runners are designed for maximum airflow using state-of-the-art fluid flow modeling software. Airflow testing demonstrates a manifold flow loss of less than 10% when compared to bare inlet port with ideal entry conditions. This amount of flow loss is considered to be very low and is less than half the restriction of a typical production manifold. Large diameter primary runners produce a significant horsepower increase in the 4000 to 6000 RPM range without loss of mid-range torque.
- The intake manifold and installation hardware kits include: inlet duct, dual bore throttle body, shock tower brace (except 1998), and all necessary lines, hoses, and attaching hardware. No hood or hood blanket modifications are required.
- Service gasket M-9439-D461 manifold intermediate joint gasket.

### 4.6L PERFORMANCE IMPROVEMENT (PI) **INTAKE MANIFOLD**

### M-9424-P46\*\*

M-8575-D461\*

in the engine

- Production plastic intake manifold used on 2001-04 4.6L SOHC 2V Mustang GT
- Less expensive alternative to aftermarket performance intake manifolds for PI head swaps
- Manifold fits 1999-04 Power Improvement head ports

PRESSURE BALANCED THERMOSTAT

Great for custom engine builds ٠

• For use in 4.6L SOHC engines

- Can be used on 1996-98 engines with PI heads
- Additional modifications and parts required



### **HI-FLOW 70MM** THROTTLE BODY

M-9926-D462\* 1996-03 Mustang

- · Bolts to stock intake manifold
- · Significant power increase



THROTTLE BODY GASKET

M-9933-D462\* 1996-03 Mustang • Replacement gasket for M-9926-D462 throttle body







# ENGINE COMPONENTS |

### STEEL 4.6L COBRA CRANKSHAFT M-6303-D46\*\*

- Original equipment replacement crankshaft for 1996-01 4.6L DOHC Cobra engine
- Can be used in 4.6L SOHC engines if "8-bolt" flywheel is used
- May require minor block modifications for counter weight clearance



### CAST 4.6L CRANKSHAFT M-6303-C46\*\*

- Production Romeo 4.6L SOHC 2V cast iron crankshaft
- Great for low-cost engine builds
- 4.6L engines may have 6 or 8 bolts to attach to the crankshaft. Check the engine code before ordering. Romeo-built engines have 6 bolts and Windsor-built engines have 8 bolts. All Cobra engines have 8 bolts. The 8th character in the VIN is (X) for Windsor engine plant or (W) for Romeo engine plant.



### DEEP SUMP 5.4L TRUCK OIL PAN M-6675-L54

- Fits all 1996-04 5.4L F-150s with PN96 body
- · Increased capacity and baffling over stock pans for better oil control



### PAINTED MUSTANG 4.6L OIL PAN M-6675-D46\*\*

- Production 4.6L Mustang oil pan
- Fits 1996-04 4.6L SOHC 2V and DOHC 4V
- Painted black
- Does not include pickup tube
- Works with high-volume oil pump and pickup kit M-6600-D46
- Can be used to build custom oil pan

### STEEL MODULAR 5.4L CRANKSHAFT

### M-6303-M54\*\*

- Original equipment for the 1999-04 SVT Lightning 5.4L
- Forged steel
- 106mm stroke
- Standard journal diameters
- 8-bolt flywheel



### **MUSTANG PERFORMANCE FLYWHEELS**

The manual transmission flywheels listed below fit 4.6L SOHC/DOHC and Cobra engine applications. They are dimensionally the same as stock and have the same zero-balance specification as stock flywheels. The nodular iron units are stronger and have increased RPM capability. The billet steel units have even higher RPM capability and meet SFI specification 1.1.

### NODULAR IRON FLYWHEEL

 M-6375-D46
 4.6L SOHC (6-bolt)

 M-6375-J46
 4.6L SOHC/DOHC (8-bolt)

- Used in M-7060-C46
- Works with an 11" clutch

### BILLET STEEL FLYWHEELS

M-6375-F46 4.6L SOHC (6-bolt) M-6375-G46 4.6L SOHC/DOHC (8-bolt)

### ALUMINUM FLYWHEEL

M-6375-R00 4.6L SOHC (8-bolt)

**NOTE:** 4.6L engines may have 6 or 8 bolts to attach to the crankshaft. Check the engine code before ordering. Romeo-built engines have 6 bolts andWindsor-built engines have 8 bolts. All Cobra engines have 8 bolts. The 8th character in the VIN is (X) for Windsor engine plant or (W) for Romeo engine plant.



CRANKSHAFT DAMPER M-6316-D461\*

- 4.6L SOHC
- Neutral balance
- High-performance replacement damper
- Meets SFI 18-1 specs



ig oil pan C 2V and DOHC 4V



### **HI-FLOW SHORTY HEADERS**

These unique big tube shorty headers feature a combination stainless steel tubular/clamshell design. Designed by Ford Racing engineers for improved scavenging and exhaust flow.

These headers are direct replacements for the production manifolds. They are uniquely designed to separate adjacent firing cylinders for improved scavenging in a modified tri-Y configuration. Static airflow capability is improved as well.

PART NUMBER	ТҮРЕ	APPLICATION
M-9430-E462*	Stainless Steel	1996-04 Mustang GT 4.6L SOHC
M-9430-E463*	Ceramic Coated	1996-04 Mustang GT 4.6L SOHC
M-9430-E464*	Stainless Steel	1996-01 4.6L Cobra DOHC ①
M-9430-E465*	Ceramic Coated	1996-01 4.6L Cobra DOHC ①
M-9430-S197	Stainless Steel	2005 Mustang GT
M-9430-S197C	Ceramic Coated	2005 Mustang GT

NOTE: 1 Does not fit 2003 and up.

### **REPLACEMENT HEADER GASKETS**

(SOLD IN PAIRS)	
PART NUMBER	CYLINDER HEAD APPLICATION
M-9448-A462*	4.6L SOHC
M-9448-A464*	4.6L DOHC

### UNDERDRIVE HORSEPOWER PULLEY KIT

M-8509-D462\* 1996-98 Mustang

(Does not fit 1999-04)

- · Significant power increase, reduces power loss from accessories by reducing accessory pulley speed
- · Three-piece kit with hardware and instructions
- 4.6L SOHC engines
- Aids acceleration by reducing accessory speed compared to the crankshaft

WARNING: Engine cooling will be reduced

### **A.C. ELIMINATOR KIT** M-19216-D46

- Fits 1996-06 Mustang with 4.6L engine SOHC/DOHC
- · Cast aluminum idler pulley bracket replaces the air conditioning compressor
- Removes weight from the front of car for better weight transfer when racing
- Bolts included
- · Uses stock belt (not included)



### FEATURES:

### Stainless Steel

- 409 stainless steel tubes • 1.625" diameter tubes
- Machined flange
- Bolts to stock exhaust pipes
- · Includes gaskets, bolts and studs

### **Ceramic Coated Stainless Steel**

- Identical to stainless steel header, but with Jet Hot® ceramic finish
- Stain and rust resistant
- Super-premium quality
- Jet Hot<sup>®</sup> Lifetime Warranty
- Finest short-tube headers you can buy



# M-9448-A464 shown

### **HIGH-VOLUME OIL PUMP** M-6600-D46

This pump will provide extra insurance for bearing life at sustained high-RPM conditions. Compatible with M-6687-D46 windage tray kit.



### WINDAGE TRAY KIT M-6687-D46

An important addition to the oil system for high-RPM application. Assists in proper timing chain housing drainage. Due to clearance conditions, this part must be installed with the engine outside of the vehicle.

NOTE: Does not fit Windsor block.



### **CAM TIMING TOOL KIT**

M-6266-D46 4.6L 2V Accurately setting cam timing can be quite challenging with the engine in the vehicle. This kit makes checking cam timing easier. Kit includes dial indicator mount and solid lifter modified rocker arm.



### 5.0L/302 - 345 HP GT-40 ALUMINUM HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY **REPLACES M-6007-XE3/XB3 WITH ADDITIONAL FEATURES**

M-6007-XB3M\* B303 Camshaft – Manual Transmission

M-6007-XE3M\* E303 Camshaft – Auto or Manual Transmission

- 302 cubic inch
- 345 HP with M-6250-B303, 340 HP with M-6250-E303 camshaft, Ford Racing
- induction kit, headers, and a 65mm throttle body not included
- 9.0:1 compression ratio (nominal)
- Ford Racing aluminum GT-40 cylinder heads M-6049-X303
- Ford Racing high-performance hydraulic roller camshaft M-6250-B303 (M-6007-XB3M) and M-6250-E303 (M-6007-XE3M) roller lifters and M-6564-B351 roller rocker arms
- · Great for limited budgets. It's the fast, easy way to add performance
- · Good for kit cars, street rods, and trucks
- Depending on your application, the timing cover and/or water pump, damper, oil pan and pick-up tube may need to be reused from your original engine

### Look at what you get:

- A new long block assembly, built with the same quality controls as a new production engine. With minor modifications, it will also fit earlier models and vehicles with automatic transmissions
- A new long block assembly that includes the block, crank, rods, pistons, timing chain, roller rocker arms, roller tappets, push rods, oil pump and pickup tube, oil pan, valve covers, front cover, water pump, damper, flywheel, spark plugs and related long block engine parts to which Ford Racing engineers have added:
  - Ford Racing GT-40 aluminum cylinder heads M-6049-X303 with 1.94" intake valves and 1.54" exhaust valves. They flow significantly better than production 5.0L HO heads
  - Ford Racing hydraulic roller camshaft M-6250-B303 which provides significant horsepower increases above 4000 RPM and good low end torque. Valve lift is .480" on both intake and exhaust. Duration at .050" is 224° on both intake and exhaust
  - Ford Racing hydraulic roller camshaft M-6250-E303 which provides significant horsepower increases above 2500 RPM and good low-end torque. Valve lift is .498" on both intake and exhaust. Duration at .050" is 220° on both intake and exhaust



### **INSTALLATION NOTES:**

See engine installation and tuning tips on page 34. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- This engine has a rear sump "Fox"-style 5 gt. oil pan and pickup (M-6675-A50), serpentine style water pump (M-8501-C50) and timing chain cover (M-6059-D351), 4-bolt harmonic damper (M-6316-M50) and valve covers (M-6000-K302R).
- The rear sump style oil pan will work in all Fox body applications. For other style applications, see oil pans on pages 98-101.
- The timing chain cover (M-6059-D351) will work with most V-belt applications, see page 94 for other timing chain covers.
- The water pump (M-8501-C50) will work on 1986-93 Mustangs. For other applications see pages 94-95.
- The valve cover (M-6000-K302R) included will work on 1986-93 Mustangs, optional valve covers are available on pages 117-119.
- The damper is production style 1981-95 Mustang. For other applications see pages 80-81.
- The flywheel included should work for most 157-tooth manual transmission applications. For other transmission applications use a 1981 or newer 302 (50oz) flywheel, see pages 128-129.
- Distributor with steel gear must be used to be compatible with the camshaft included in the engine. See page 108 for distributor gears.
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W).
- Built with current available parts. Photo and specs may vary.
- · Shipping weight approximately 425 lbs.

### FOR MORE INFORMATION, CALL THE TECH "HOT LINE" AT (586) 468-1356.

### **MINI STARTERS – SMALL BLOCK**

M-11000-A50 1.1 kw Hi-torque starter

- M-11000-B50 1.6 kw Super hi-torque starter
- Small diameter mini-starter-great for additional header clearance
- Weighs approximately 5 lbs. less than production starter, yet provides more cranking power
- Comes with special battery cables and instructions. Must use firewall solenoid
- Fits most 289/302/351W/351C engines except 164-tooth manual transmission



# **FLYWHEELS**

NOTE: For optional flywheels (sold separately), see pages 128-129.





### 5.0L/302 CID SMALL BLOCK 360/390 HP "Z" HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

## M-6007-Z50E\* 360 HP M-6250-E303 Camshaft

M-6007-Z50Z\* 390 HP M-6250-Z303 Camshaft

- 302 cubic inch
- 360 HP @ 6000 RPM, 330 ft./lbs. of torque @ 4800 RPM with M-6250-E303 camshaft, 9.0:1 Compression ratio (nominal)
- 390 HP @ 6200 RPM, 360 ft./lbs. of torque @ 5000 RPM with M-6250-Z303 camshaft, 10.0:1 Compression ratio (nominal)
- Ford Racing aluminum "Z" cylinder heads M-6049-Z304A
- Forged pistons
- HD forged steel connecting rods M-6200-D50
- Ford Racing high-performance hydraulic roller camshaft M-6250-E303 (M-6007-Z50E) or M-6250-Z303 (M-6007-Z50Z) and roller rocker arms M-6564-K351
- New heavy-duty 5.0L "Sportsman" block, oil and water pumps and harmonic damper
- Great engine for serious performance applications

### Look at what you get:

- A new "Sportsman" block 2-bolt main long block with ARP<sup>®</sup> main cap studs engine assembly. Custom built with the same quality controls as a new production engine
- Ford Racing Z304 aluminum cylinder heads. They have 2.02" intake and 1.60" exhaust valves and flow significantly better then GT-40 "X" heads
- The M-6007-Z50E includes a Ford Racing high-performance hydraulic roller camshaft which provides significant horsepower increases above 4000 RPM with good mid-range torque. Valve lift is .498" intake and exhaust. Duration @ .050" is 220°intake and exhaust
- The M-6007-Z50Z includes a Ford Racing high-performance hydraulic roller camshaft which provides significant horsepower increases above 4000 RPM with good mid-range torque. Valve lift is .552" intake and exhaust. Duration @ .050" is 228° intake and exhaust



### INSTALLATION NOTES:

See engine installation and tuning tips on page 34.

Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- Oil pan is a production style 5 qt. Fox body pan. Pan contains no baffling. Change to a high- performance oil pan (increased capacity and baffling) that fits your application if necessary.
- This engine is built for V-belt accessory drive. For serpentine front drive applications

the front cover and water pump will have to be changed. See pages 94-95 for other water pumps.

- Engine is shipped without an intake manifold. Intake M-9424-E302 was used to achieve 360 HP and a intake with Weber carburetors for 390 HP.
- Use intake gasket part number M-9430-A50.
- 30 lb. Injectors required for EFI applications.
- Firing order is 1-3-7-2-6-5-4-8.
- Engine assembly does not include flywheel. See pages 128-129 for flywheels. This engine requires 50 oz./in. unbalance flywheel.
- Photo and specs may vary.
- Shipping weight approximately 405 lbs.

FOR MORE INFORMATION CALL THE TECH "HOT LINE" AT (586) 468-1356.

### MINI STARTERS – SMALL BLOCK

M-11000-A50 1.1 kw Hi-torque starter

- M-11000-B50 1.6 kw Super hi-torque starter
- Small diameter mini-starter—great for additional header clearance
- Weighs approximately 5 lbs. less than production starter, yet provides more cranking power
- Comes with special battery cables and instructions. Must use firewall solenoid
- Fits most 289/302/351W/351C engines except 164-tooth manual transmission



### FLYWHEELS

NOTE: For optional flywheels (sold separately), see pages 128-129.





### 5.0L/302-347 CID SMALL BLOCK – 450 HP "Z" HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

### M-6007-C347\*

- 347 cubic inch
- 450 HP @ 6000 RPM (with headers and 650 CFM Holley carburetor, not included)
- 400 ft./lbs. of torque @ 4900 RPM
- 9.7:1 Compression ratio (nominal)
- Ford Racing aluminum "Z" cylinder heads M-6049-Z304A
- Ford Racing high-performance hydraulic roller camshaft
   and roller rocker arms
- Single plane "Victor Jr." intake manifold
- New heavy-duty 5.0L "Sportsman" block, oil and water pumps and a high-performance harmonic damper.
- Canton 7 qt. performance oil pan fits 1979 and later Fox bodied cars
- MSD<sup>®</sup> billet distributor
- Great engine for serious performance applications. Not recommended for daily drivers

NOTE: Photo and specs may vary

### Look at what you get:

- A NEW "Sportsman" block 2-bolt main long block with ARP® main cap studs engine assembly. Custom built with the same quality controls as a new production engine (no flywheel)
- Ford Racing Z304A aluminum cylinder heads. They have 2.02" intake and 1.60" exhaust valves and flow significantly better than GT-40 heads
- Ford Racing high-performance hydraulic roller camshaft provides significant horsepower increases above 4000 RPM with good mid-range torque. Valve lift is .563 intake and .584 exhaust. Duration @ .050" is 232° intake and 240° exhaust

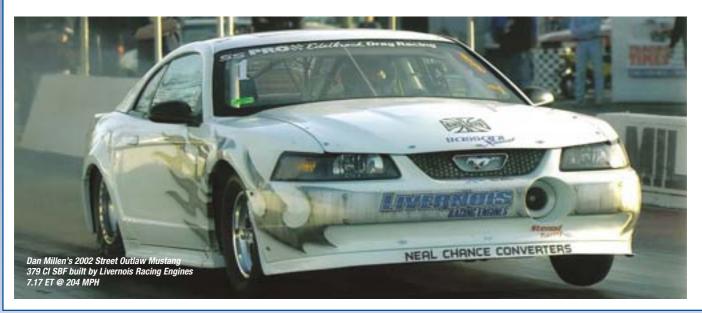


### **INSTALLATION NOTES:**

See engine installation and tuning tips on page 34.

- The high-performance 7 qt. baffled Canton oil pan fits Mustang and other Fox body vehicles and is recommended for street/strip applications. Canton #20-930 one-way screen tray (not included) fits this pan.
- This engine is built for a V-belt accessory drive. For serpentine front drive applications, the front cover and water pump will have to be changed. See pages 94-95. for other water pumps.
- The damper assembly M-6316-C351 will require pulley spacer M-8510-C351 with 4 bolt pulley applications.
- Firing order is 1-3-7-2-6-5-4-8.
- See pages 128-129 for flywheels. This engine assembly requires 28 oz./in. unbalance flywheel.
- · Photo and specs may vary.
- Shipping weight approximately 425 lbs.

FOR MORE INFORMATION, CALL THE TECH "HOT LINE" AT (586) 468-1356.





### COMPLETE HD 5.8L/351-2V FORD RACING CRATE ENGINE ASSEMBLY

### M-6007-J58\*

- 5.8L/351 cubic inch 2V
- 240 HP @ 3800 RPM
- 8.5:1 compression ratio
- Includes E6TE-9424-DA 2V aluminum intake, V-belt standard rotation mid-1970s style cast iron water pump with left hand inlet, aluminum timing chain cover with fuel pump mount, fuel pump block off and eccentric, E5AE-6090-CA cylinder heads without thermactor air passages, F4TR-6380-AA HD truck manual transmission flywheel, high-torque flat tappet cam E7JE-6250-AA, full sump oil pan, Duraspark distributor and coil, spark plug wires, block is hydraulic roller cam compatible
- The Tech "Hot Line" can offer specific swap information for your year and model vehicle. Call (586) 468-1356
- Shipping weight approximately 595 lbs.



### COMPLETE HD 5.8L/351-4V FORD RACING CRATE ENGINE ASSEMBLY M-6007-S58\*

- 5.8L/351 cubic inch 4V
- 250 HP @ 3800 RPM
- 8.5:1 compression ratio
- Includes Ford Racing dual plane 4V aluminum intake, Ford Racing tall polished aluminum valve covers M-6582-E302P, V-belt standard rotation mid-1970s style cast iron water pump with left hand inlet, aluminum timing chain cover with fuel pump mount, fuel pump block off and eccentric, E5AE-6090-CA cylinder heads without thermactor air passages, F4TR-6380-AA HD truck manual transmission flywheel, high-torque flat tappet cam E7JE-6250-AA, full sump oil pan, Duraspark distributor and coil, spark plug wires, block is hydraulic roller cam compatible
- The Tech "Hot Line" can offer specific swap information for your year and model vehicle. Call (586) 468-1356
- Shipping weight approximately 595 lbs.





### 5.8L/351 – 385 HP GT-40 ALUMINUM HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

#### M-6007-D351FT\* M-6007-D351RT\*

Front Sump T-pan (Manual Transmission) Rear Sump T-pan (Manual Transmission)

- 351 cubic inch
- 385 HP (with headers, and a 650 CFM Holley carburetor not included)
- 377 ft./lbs. of torque @ 4500 RPM
- 9.0:1 compression ratio (nominal)
- Forged pistons M-6108-Z351, forged steel cap screw connecting rods M-6200-D351, hydraulic roller camshaft M-6250-Z303
- High-performance T-sump oil pan. Front sump fits most passenger cars that came factory equipped with front sump pan, rear sump pan fit most Fox body cars
- MSD billet distributor
- Ford Racing aluminum GT-40 cylinder heads M-6049-X305 and GT-40 valve train
- Single plane "Victor Jr." intake
- Great for limited budgets. It's the fast, easy way to add performance and reduce weight in high- or low-mileage vehicles
- New heavy duty 5.8L "Sportsman" race block, oil and water pumps, performance oil pan, steel billet flywheel and high-performance harmonic balancer
- Can be used in kit cars, street rods, Mustangs, Fox-bodied cars, and trucks
- Depending on your application, a different timing cover, water pump, performance oil pan and pick-up may be required. See installation notes

**NOTE:** See engine installation and tuning tips on page 34. Photo and specs may vary.

### Look at what you get:

- A NEW "Sportsman" block 2-bolt main long block engine assembly. Custom built with the same quality controls as a new production engine that includes the block, rods, pistons, timing chain, roller rocker arms, hydraulic roller tappets, push rods, oil pump and pickup, oil pan, M-6582-E302P valve covers, front cover, water pump, damper, flywheel, spark plugs, billet aluminum distributor and related long block engine parts to which Ford Racing engineers have added:
  - Ford Racing GT-40 aluminum cylinder heads. They flow significantly better than production 5.8L heads
  - Ford Racing GT-40 valve train kit. It includes springs, retainers, keepers, seals and premium stainless steel swirl polished valves with undercut stems. Intake valve diameter is 1.94" and exhaust valve diameter is 1.54"
  - Ford Racing high-performance hydraulic roller lifter camshaft provides significant horsepower increases and good mid-range torque. Valve lift is .552" intake and exhaust. Duration at .050" is 228° intake and exhaust.

See Also...Crate Engine Build-Up "Cammer" Engine Build-Up Crate Engine Warranty Engine Tips & Specs Crate Engine Catalog



### INSTALLATION NOTES:

See engine installation and tuning tips on page 34. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- This engine has a T-sump performance oil pan and pickup, regular rotation timing cover and both regular (installed) and reverse rotation water pumps, and non-EFI valve covers.
- A different performance oil pan and pick-up may be required for your application. Call the Tech "Hot Line" at (586) 468-1356 for more information.
- The timing chain cover will work with most regular rotation water pumps.
- A standard rotation water pump is installed on the engine and a reverse rotation is included loose in the box. Other applications may require different water pumps and timing chain covers found on pages 94-95.
- The valve covers (M-6582-E302P) should fit most Mustang and other non-EFI applications, optional valve covers (sold separately) are available on pages 117-119.
- The damper assembly may require a spacer for pulley alignment, see page 81.
- The flywheel should work for most 157-tooth manual transmission applications. For other transmission applications use the proper 28 oz. flywheel, see pages 128-129.
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order).
- Built with current available parts. Photo and specs may vary.
- Shipping weight approximately 545 lbs.

FOR MORE INFORMATION, CALL THE TECH "HOT LINE" AT (586) 468-1356.





### 5.8L/351 – 392 CID SMALL BLOCK – 430 HP GT-40 HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

M-6007-D392FT\* Front Sump T-pan (Manual Transmission)

- M-6007-D392RT\* Rear Sump T-pan (Manual Transmission) • 392 cubic inch
- 430 HP @ 5500 RPM (with headers, and a 750 CFM Holley carburetor not included)
- 450 ft./lbs. of torque @ 4000 RPM
- 9.7:1 compression ratio (nominal)
- Forged pistons M-6108-C392, forged steel connecting rods M-6200-D351, hydraulic roller high-performance camshaft
- High-performance T-sump oil pan, front sump fits most passenger cars that came factory equipped with front sump pan, rear sump pan fits most Fox body cars
- MSD billet distributor
- Ford Racing aluminum GT-40 cylinder heads M-6049-X303 and GT-40 valve train
- Single plane "Victor Jr." intake manifold M-9424-V351
- Great for limited budgets. It's the fast, easy way to add performance in high- or low-mileage vehicles
- New heavy duty 5.8L "Sportsman " race block, oil and water pumps, dual sump oil pan, steel billet flywheel and high-performance harmonic balancer
- Great engine for kit cars, street rods, Mustangs, Fox-bodied cars, and trucks
- Depending on your application a different timing cover, water pump, performance oil pan and pick-up may be required. See installation notes

**NOTE:** See engine installation and tuning tips on page 34. Photo and specs may vary.

### Look at what you get

- A NEW "Sportsman" block 2-bolt main long block engine assembly. Custom built with the same quality controls as a new production engine that includes the block, crank, rods, pistons, timing chain, roller rocker arms, hydraulic roller tappets, push rods, oil pump and pickup, oil pan, M-6582-E302P valve covers, front cover, water pump, damper, flywheel, spark plugs, billet aluminum distributor and related long block engine parts—to which Ford Racing engineers have added:
  - Ford Racing GT-40 aluminum cylinder heads. They flow significantly better than production 5.8L heads
  - Ford Racing GT-40 valve train kit. It includes springs, retainers, keepers, seals and premium stainless steel swirl polished valves with undercut stems. Intake valve diameter is 1.94" and exhaust valve diameter is 1.54"
  - Ford Racing high-performance hydraulic roller lifter camshaft provides significant horsepower increases above 4000 RPM and good mid-range torque. Valve lift is .566" intake and .576" exhaust. Duration at .050" is 232° intake and 240° exhaust

See Also...Crate Engine Build-Up "Cammer" Engine Build-Up

Crate Engine Warranty Engine Tips & Specs Crate Engine Catalog



See engine installation and tuning tips on page 34.

Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- This engine has a T-sump oil pan and pickup, regular rotation timing cover and both regular (installed) and reverse rotation water pumps, and non-EFI valve covers.
- A different performance oil pan and pick-up may be required for your application. Call the Tech "Hot Line" at (586) 468-1356 for more information.
- The timing chain cover will work with most regular rotation water pumps
- A standard rotation water pump is installed on the engine and a reverse rotation is included loose in the box. Other applications may require different water pumps and timing chain covers found on pages 94-95.
- The valve covers (M-6582-E302P) should fit most Mustang and other non-EFI applications, optional valve covers (sold separately) are available on pages 117-119.
- The damper assembly may require a spacer for pulley alignment, see page 81.
- The flywheel should work for most 157-tooth manual transmission applications. For other transmission applications use the proper 28 oz. flywheel. See pages 128-129.
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order).
- Built with current available parts. Photo and specs may vary.
- Shipping weight approximately 545 lbs.

FOR MORE INFORMATION, CALL THE TECH "HOT LINE" AT (586) 468-1356.



### 5.8L/351 – 392 CID SMALL BLOCK – 475 HP "Z" ALUMINUM HEAD FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

M-6007-C392FT\* M-6007-C392RT\*

Front Sump T-pan (Manual Transmission) Rear Sump T-pan (Manual Transmission)

- 392 cubic inch
- 475 HP @ 5600 RPM (with headers and 750 CFM Holley carburetor, not included)
- 495 ft./lbs. of torque @ 4400 RPM
- 10.0:1 compression ratio (nominal)
- Forged pistons M-6108-C392, forged steel cap screw connecting rods M-6200-D351, forged steel crankshaft M-6303-B385
- Hydraulic roller high-performance camshaft
- High-performance T-sump oil pan, front sump pan fits most passenger cars that came factory equipped with front sump pan, rear sump pan fits most Fox-body cars
- MSD billet distributor
- Ford Racing aluminum "Z" cylinder heads M-6049-Z304A
- · Ford Racing high-performance hydraulic roller camshaft and roller rocker arms
- Single plane "Victor Jr." intake manifold
- New heavy-duty 5.8L "Sportsman" race block, oil and water pumps, performance oil pan, steel billet flywheel and a high-performance harmonic damper
- Great engine for serious performance applications
- Depending on your application, a different timing cover, water pump, performance oil pan and pick-up may be required. See installation notes

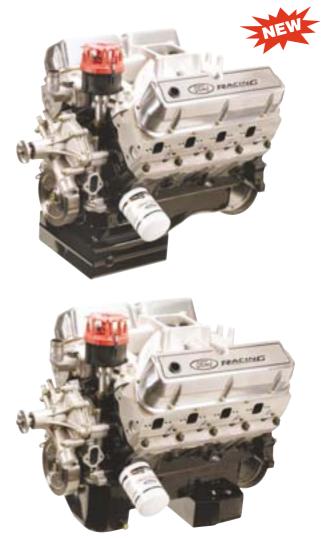
**NOTE:** See engine installation and tuning tips on page 34. Photo and specs may vary.

### Look at what you get:

- A new "Sportsman" block 2-bolt main long block engine assembly. Custom built with the same quality controls as a new production engine.
- Ford Racing Z304 aluminum cylinder heads. They have 2.02" intake and 1.60 exhaust valves and flow better then GT-40 heads
- Ford Racing high-performance hydraulic roller camshaft provides significant horsepower increases above 4000 RPM with good mid-range torque. Valve lift is .563" intake and .584" exhaust duration @ .050" is 232° intake and 240° exhaust

See Also...Crate Engine Build-Up

"Cammer" Engine Build-Up Crate Engine Warranty Engine Tips & Specs Crate Engine Catalog



### **INSTALLATION NOTES:**

See engine installation and tuning tips on page 34. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- This engine has a T-sump performance oil pan and pickup, regular rotation timing chain cover and both regular rotation (installed) and reverse rotation water pumps and non-EFI valve covers.
- A different performance oil pan and pick-up may be required for your application.
- The timing chain cover will work with most regular rotation water pumps. A standard rotation water pump is installed on the engine and a reverse rotation is included loose in the box. Other applications may require a different water pump and timing chain cover.
- The valve covers (M-6582-E302P) should fit most Mustang and other non-EFI applications, optional valve covers (sold separately) are available on pages 117-119.
- The damper assembly may require a spacer for pulley alignment, see page 81.
- The flywheel should work for most 157-tooth manual transmission applications. For other transmission applications use the proper 28 oz. flywheel. See pages 128-129.
- Firing order 1-3-7-2-6-5-4-8 (5.0L HO and 351W order).
- · Built with current available parts. Photo and specs may vary.
- Shipping weight approximately 545 lbs.

FOR MORE INFORMATION CALL THE TECH "HOT LINE" AT (586) 468-1356.



### 7.5L/460 "SUPER COBRA JET" – 550 HP FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

M-6007-F460FT\* M-6007-F460RT\*

Front Sump T-pan Rear Sump T-pan

- 460 cubic inch
- 550 HP at 6250 RPM and 545 ft./lbs. of torque at 4800 RPM (with headers and 850 cfm carburetor not included)
- 10.5:1 compression ratio (nominal)
- Forged steel connecting rods M-6200-A75 and hydraulic flat tappet camshaft, M-6250-C460
- High-performance T-sump oil pan, Front sump fits most passenger cars that came equipped with front sump pan, Rear sump fits most Fox body cars
- MSD billet distributor
- High flow aluminum water pump, M-8501-C460
- Ford Racing "Super Cobra Jet" aluminum heads, M-6049-SCJ with Ford Racing valve train
- Ford Racing "Victor" single plane intake manifold M-9424-G429
- 460 2-bolt main short block M-6009-E460, oil and water pumps, oil pan, flywheel, and harmonic balancer
- A serious high-performance engine
- Depending on your application, a different timing cover, water pump, performance oil pan and pick-up may be required. See installation notes

**NOTE:** See engine installation and tuning tips on page 34. Photo and specs may vary (shown without T-sump oil pan).

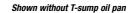
### Look at what you get:

- Long block engine assembly. Custom built with the same quality controls as a new production engine that includes crank, rods, pistons, timing chain, roller rocker arms, hydraulic flat tappets, push rods, oil pump and pickup, high-performance oil pan, M-6582-C460 valve covers, front cover, water pump, damper, flywheel, spark plugs, related long block engine parts and remanufactured block .030" overbore—to which Ford Racing engineers have added:
  - Ford Racing "Super Cobra Jet" aluminum cylinder heads. They flow significantly more than production 460 heads. Combustion chamber volume is 72cc (nominal), Ford Racing "Super Cobra Jet" valve train includes springs, retainers, keepers, seals and premium stainless steel swirl polished valves. Intake valve diameter is 2.20" and exhaust valve diameter is 1.76"
  - Ford Racing high-performance hydraulic camshaft M-6250-C460 provides significant horsepower increases above 3000 RPM and good low-end torque. Valve lift is .588" intake and .614" exhaust. Duration at .050" is 244° intake and 254° exhaust
  - Remanufactured blocks have a clean-up cut to the cylinder head deck, align honed main bearing bore, bottom tapped holes (no heli-coils), new freeze plugs and cam bearings

See Also...Crate Engine Build-Up

"Cammer" Engine Build-Up Crate Engine Warranty Engine Tips & Specs Crate Engine Catalog





#### INSTALLATION NOTES:

See engine installation and tuning tips on page 34. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- This engine has a T-sump performance oil pan and pick-up. A different performance oil pan and pickup and oil pump may be required for your application. Call the Tech "Hot Line" at (586) 468-1356 for more information.
- The timing chain cover does not have provisions for a mechanical fuel pump or dipstick tube.
- The water pump will work for most 7.5L standard rotation applications.
- The valve covers (M-6582-C460) should fit most Mustang and other non-EFI applications, optional valve covers (sold separately) are available on pages 117-119.
- The auto transmission flywheel should work for most C-6 automatic transmission applications. For manual transmission applications use flywheel M-6375-Z460, see below.
- If a mechanical fuel pump is to be used, the front cover must be changed, and a fuel pump eccentric added to the front of the camshaft.
- Firing order 1-5-4-2-6-3-7-8.
- Built with current available parts. Photo and specs may vary.
- Shipping weight approximately 670 lbs.

FOR MORE INFORMATION, CALL THE TECH "HOT LINE" AT (586) 468-1356.

### 514 CUBIC INCH - 625 HP FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

### M-6007-D514RT\* Rear Sump T-pan

- 625 HP @ 6250 RPM
- 600 ft./lbs. of torque @ 4800 RPM
- 9.8:1 compression ratio (nominal)
- Forged aluminum dished pistons M-6108-C514, H-beam connecting rods M-6200-C514. Mechanical roller camshaft M-6250-A514 (mechanical roller camshafts not recommended for street use. Contact the Tech "Hot Line" for more details).
- High-performance rear T-sump oil pan, fits most "Fox"-body cars
- MSD billet distributor
- Cast nodular iron. M-6303-A514
- Sturdy 460 2-bolt main short block M-6009-D514 ٠
- M-6049-SCJB "Super Cobra Jet" aluminum cylinder heads
- M-9424-H429 "Victor Jr." single plane intake manifold (requires Dominator carburator)

**NOTE:** See engine installation and tuning tips on page 34. Photo and specs may vary (shown without T-sump oil pan).

#### Look at what you get:

- A 514 cubic inch engine assembly that includes the items listed above and a multi-index timing chain, 4130 one-piece push rods, roller rocker arms, HV oil pump, pickup, high-performance oil pan, M-6582-C460 valve covers, aluminum front cover and water pump, damper, flywheel, spark plugs, related long block engine parts and remanufactured block .030" overbore-to which Ford Racing engineers have added:
  - Ford Racing "Super Cobra Jet" aluminum cylinder heads. They flow significantly more than production 460 heads. Combustion chamber volume is 72cc (nominal)
  - Ford Racing "Super Cobra Jet" valve train includes dualvalve springs, retainers, keepers, seals and premium stainless steel swirl polished valves. Intake valve diameter is 2.20" and exhaust valve diameter is 1.76"
  - Ford Racing high-performance solid roller mechanical camshaft M-6250-A514 provides significant horsepower increases above 3500 RPM and good low-end torque. Valve lift is .640" intake and exhaust. Duration at .050" is 254° intake and 258° exhaust
  - Ford Racing forged aluminum dished pistons M-6108-C514, bore size 4.360" (+.030")
  - Remanufactured blocks have a clean-up cut to the cylinder head deck, align honed main bearing bore, bottom tapped holes no heli-coils, new freeze plug and cam bearings

See Also...Crate Engine Build-Up "Cammer" Engine Build-Up Crate Engine Warranty Engine Tips & Specs Crate Engine Catalog



Shown without T-sump oil pan

### **INSTALLATION NOTES:**

See engine installation and tuning tips on page 34. Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- A different performance oil pan and pick-up and oil pump may be required for your application. Call the Tech "Hot Line" at (586) 468-1356 for more information.
- The water pump may work for most 7.5L standard rotation applications.
- The valve covers (M-6582-C460) should work for most Mustang and other applications, optional valve covers (sold separately) are available on pages 117-119.
- The auto transmission flywheel should work for most C-6 automatic transmission applications. For manual transmission applications use flywheel M-6375-Z460, see below.
- If a mechanical fuel pump is to be used, the front cover must be changed, and a fuel pump eccentric added to the front of the camshaft.
- Firing order 1-5-4-2-6-3-7-8.
- Built with current available parts. Photo and specs may vary.
- Shipping weight approximately 670 lbs.

FOR MORE INFORMATION, CALL THE TECH "HOT LINE" AT (586) 468-1356.

### **460 FOX ENGINE SWAP MOUNTS** M-6038-A460<sup>3</sup>

Use in 1979-95 Mustang and other Fox-chassis cars to mount 429/460 engines. Our rubber insulated mount kit is designed to work with M-6675-A460 rear sump oil pan kit and custom headers. NOTE: Does not fit I-6 cylinder front crossmember.

# FLYWHEEL M-6375-Z460 Fits 1979-97 460

- · Manual transmission flywheel for all 460 engines with 24.2 oz.-in.
- external balance including 460 Ford Racing crate motor
- Meets SFI specifications





### 514 CUBIC INCH "COBRA SPECIAL" FORD RACING PERFORMANCE CRATE ENGINE ASSEMBLY

M-6007-E514FT\* Front Sump T-pan

- See website for HP and torque
- 9.8:1 compression ratio (nominal)
- Forged aluminum dished pistons M-6108-C514, H-beam connecting rods M-6200-C514, Hydraulic flat tappet camshaft, M-6250-C460
- High-performance front T-sump oil pan, fits most cars that came factory equipped with front sump pans
- MSD billet distributor
- Cast nodular iron crankshaft M-6303-A514
- Sturdy 460 2-bolt main short block M-6009-D514
- M-6049-SCJA "Super Cobra Jet" aluminum cylinder heads
- "Torker II" intake manifold

**NOTE:** See engine installation and tuning tips on page 34. Photo and specs may vary.

#### Look at what you get:

- A 514 cubic inch engine assembly that includes the items isted above and a multi-index timing chain, 4130 one-piece push rods, roller rocker arms, HV oil pump, pickup, high-performance oil pan, M-6582-C460 valve covers, aluminum front cover and water pump, damper, flywheel, spark plugs, related long block engine parts and remanufactured block .030" overbore – to which Ford Racing engineers have added:
  - Ford Racing "Super Cobra Jet" aluminum cylinder heads. They flow significantly more than production 460 heads. Combustion chamber volume is 72cc (nominal)
  - Ford Racing "Super Cobra Jet" valve train includes dual-valve springs, retainers, keepers, seals and premium stainless steel swirl polished valves. Intake valve diameter is 2.20" and exhaust valve diameter is 1.76"
  - Ford Racing high-performance hydraulic flat tappet camshaft M-6250-C460 provides significant horsepower increases above 3000 RPM and good low-end torque. Valve lift is .588" intake and .614" exhaust. Duration at .050" is 244° intake and 254° exhaust
  - Ford Racing forged aluminum dished pistons M-6108-C514, bore size 4.360" (+.030")
  - Remanufactured blocks have a clean-up cut to the cylinder head deck, align honed main bearing bore, bottom tapped holes no heli-coils), new freeze plug and cam bearings

See Also...Crate Engine Build-Up

"Cammer" Engine Build-Up Crate Engine Warranty Engine Tips & Specs Crate Engine Catalog



### INSTALLATION NOTES:

See engine installation and tuning tips on page 34.

Some or all of the following items may need to be changed from your original engine or modified for proper installation:

- A different performance oil pan and pick-up and oil pump may be required for your application. Call the Tech "Hot Line" at (586) 468-1356 for more information.
- The water pump may work for most 7.5L standard rotation applications.
- The valve covers (M-6582-C460) should work for most Mustang and other applications, optional valve covers (sold separately) are available on pages 117-119.
- The auto transmission flywheel should work for most C-6 automatic transmission applications. For manual transmission applications use flywheel M-6375-Z460, see below.
- If a mechanical fuel pump is to be used, the front cover must be changed, and a fuel pump eccentric added to the front of the camshaft.
- Firing order 1-5-4-2-6-3-7-8.
- Built with current available parts. Photo and specs may vary.
- Shipping weight approximately 670 lbs.

FOR MORE INFORMATION, CALL THE TECH "HOT LINE" AT (586) 468-1356.

# ENGINE DYNAMOMETER TESTING BASICS

# TYPES OF ENGINE DYNAMOMETERS:

There are many types of dynamometers for testing engines: Water Brake, Eddy-Current, Electric...just to name a few. Depending on availability and engine application, Ford Racing utilizes any of those mentioned. The basic function of each of these dynamometers (referred to as dynos from this point forward) is the same. Each applies a different method to absorb the energy output of the engine. The engine output is measured as torque (work) and power is calculated. The energy produced by the engine is absorbed by the dyno and eventually dissipated as heat. Dynos measure this engine output over a range of engine conditions that vary with speed and load. Temperature, pressures, air fuel ratio, water, oil, fuel and airflow measurements are elements of the test cell. The accurate measurement of these parameters is just as vital to good testing as the dyno itself. The test cell that houses a dyno can vary widely. Conditioned airflow, exhaust evacuation and fuel delivery, must be adequate for the power level of the engine tested. Shortfalls in any of these areas can impact the integrity of the test.

Ford Racing tests our crate engine offerings on any of the above-mentioned types of dynos. The type depends on test cell availability and type of engine application (street, sealed circle track, etc.). The engine is directly coupled to the dyno via a prop shaft. This type of testing yields brake power and torque. Test results are brake because measurements are taken directly from the crankshaft output.

Water brake dynos absorb energy by pumping water through various orifices. Speed and load are controlled through a feedback loop of inlet and outlet valves. Water brake dynos are typically capable of absorbing very high engine outputs and rpm.

Eddy-current dynos rotate a disc through a magnetic field. This magnetic field can be varied in strength to control the rpm of the disc. These dynos are desirable for engine development due to very good rpm control.

Electric dynos rotate a generator to absorb engine output; this yields an electric output that can be accurately measured. Typically, electric dynos can be used to spin a non-firing engine and measure pumping losses, and friction. Those types of losses are difficult to ascertain in conventional dyno testing.

### **METHODS OF TESTING**

Once the engine is installed in a test cell, and all desired operating parameters are instrumented, testing can begin. The dyno is capable of absorbing an infinite number of operating conditions ranging from idle to WOT (wide open throttle) and idle rpm to rpm's beyond peak horsepower. In cases where the dyno is operated manually, the operator will set the rpm value via a controller. The operator then opens the throttle via a throttle actuator and applies load to the dyno. As the throttle is opened further the dyno will control the rpm to the set point and the load will increase until full throttle is reached. Many types of testing exist for evaluating engine performance. Crate engine testing consists of power development, durability, idle stability, etc.

### **POWER TESTING**

Methods for performing power tests or power runs, varies by dyno facility and engine application. Acceleration tests (sometimes referred to as ramp tests) are controlled completely by dyno software through the dyno controller and throttle actuator. RPM and transient times are programmed by the operator, and once set the controller takes the engine through the test. These tests typically do not let the engine stabilize at any given speed and data is collected throughout the ramp. For example: The test would begin at idle. Slowly the throttle will be opened and rpm controlled to the first chosen rpm test point. Eventually the throttle will reach WOT. From then, the rpm will increase at a given rate of rpm/time until the maximum test rpm is reached. Test data is recorded throughout the entire run. Finally the controller will close the throttle and return the engine to idle.

Another method of power testing is the step method. This can be controlled manually or by an automated test where the dyno software controls the engine operation. The dyno controller is set to the first rpm test point and the throttle actuator is slowly opened to the full throttle point. The controller will maintain the rpm of the engine to the set point. In the manual mode, the operator will observe the data until stable and then record. In automated mode, the dyno will hold the throttle and rpm for a set period of time and automatically record the data. In either case, this testing provides good steady readings and makes for good repeatable runs. The above procedure will be repeated for all desired rpm test points.

Results of power testing are used in the design of crate engine packages and for marketing/sales. For further information on interpreting results see article on "Correction Factors, Observed and Corrected Horsepower and Torque."

### **DURABILITY TESTING**

Durability testing varies by engine application and configuration. The type of engine and where it will be used can influence the type of durability testing greatly. For example, durability testing criteria for a sealed circle track crate engine will be determined by minimum and maximum track conditions. Durability testing for a street application crate engine will be determined by peak torque and horsepower for the given components. Testing conditions are typically WOT or high load conditions and variable rpm to cover as wide of a range as possible. In short, durability testing criteria varies, but the goal is the same. The goal is to produce an accelerated wear condition that exceeds the normal application of the engine as designed.



### CORRECTION FACTORS, OBSERVED AND CORRECTED HORSEPOWER AND TORQUE

### THE NEED FOR CORRECTED TEST RESULTS:

The main reason for a correction factor is the ability to compare testing performed under different atmospheric conditions. The correction factor will contain a temperature, barometric pressure and an efficiency percentage. The temperature and barometric pressure have significant impact on the performance of an engine. Also, to a lesser degree, humidity can affect the performance. Some dyno facilities have controlled atmospheric chambers to condition air to a desired temperature, humidity and barometric pressure. These test cells are very sophisticated and usually booked with production, emission, cold start and hot test work. The test cells with these chambers can easily cost several hundred of thousands. Considering these challenges, it becomes evident that there is a need to be able to test engines under observed operating conditions and correct the results to a standard set of conditions.

### **SOME DEFINITIONS:**

<u>Observed Operating Conditions</u> are measured near the entry of the carburetor or inlet air system of the engine. These conditions include inlet air temperature, wet bulb temperature and actual barometric pressure.

<u>Observed Torque</u> is the measured torque value while the engine is running. It typically uses a calibrated load cell. This load cell measures the work the engine is doing in real time. The observed torque value is then used in calculating the observed horsepower value. <u>Observed Horsepower</u> this value represents how fast the work (generated by the engine) is being done. This is calculated by the following formula (observed torque \* rpm)/5252.

<u>Observed Barometric Pressure</u> is atmospheric pressure measured near the engine air inlet. <u>Observed Inlet Air Temperature</u> is self explanatory.

Wet Bulb Temperature is the temperature achieved by evaporating water into the observed inlet air. This is accomplished by using a wick with one end in a vessel containing water and the other connected to a thermometer or thermocouple. This reading is used in calculating vapor pressure, humidity and ultimately correction factor. <u>Corrected Torque</u> is the measured torque times the correction factor.

Corrected Horsepower is the measured

horsepower times the correction factor. <u>Corrected Barometric Pressure</u> is the observed barometric pressure minus the corrected vapor pressure.

<u>Standard Barometric Pressure</u> is stated in the definition of the correction factor.

<u>Load Cell</u> is an electronic device capable of measuring force.

<u>Brake Horsepower</u> is useful power determined from the engine, (no other power train losses), can be observed or corrected.

### BASIC ENGINE PERFORMANCE AND ATMOSPHERIC CONDITIONS:

Engines utilize fuel, air and apply a form of combustion to convert the power stored in fuel into usable work. The air contains oxygen; this is the element that supports the combustion process. Cool dry air contains more oxygen molecules within a constant volume and pressure. As barometric pressure increases, additional oxygen molecules are present (maintaining a constant volume).

For example, if an engine was tested on a cool January day where the barometric pressure was relatively high, observed engine performance will be better than the same engine tested on a hot, muggy, August day when a storm was coming in. Also, engine tests performed in higher altitudes have lower observed barometric pressure and engine performance is lower.

### **CORRECTION FACTORS**

Several correction factors exist and this article will deal with two of them.

- SAE J1349, June 1990 Data corrected to 77° F and 29.31 in Hg 85% efficiency.
- (2) SAE J607, Data corrected to 60° F and 29.92 in Hg.

#### SAE J1349

This formula utilizes the observed inlet air temperature and wet bulb readings to calculate saturated, current and corrected vapor pressure. The corrected vapor pressure is subtracted from the observed barometric pressure. It is subtracted because this pressure is due to water vapor in the air. This yields corrected barometric pressure.

The conditions for correction are 77° F and barometric pressure of 29.31 inches of mercury. Once the corrected barometric pressure is calculated and the observed inlet air temperature is known, those values are plugged into the following formula. The correction factor formula is:

C.F. = 1.18 #[(29.31/Corrected Barometric Pressure) \* {(Observed Inlet Air Temp+460)/ (537] ^.5]-.18

### SAE J607

This formula utilizes the observed inlet air temperature and wet bulb readings to calculate saturated, current and corrected vapor pressure. The corrected vapor pressure is subtracted from the observed barometric pressure. It is subtracted because the pressure is due to water vapor in the air. This yields corrected barometric pressure. The conditions for correction are 60° F and barometric pressure of 29.92 inches of mercury. Once the corrected barometric pressure is calculated and the observed inlet air temperature is known, those values are plugged into the following formula. The correction factor formula is:

C.F. = [(29.92/Corrected Barometric Pressure) ^1.2 \* {(Observed Inlet Air Temp+460)/ (520} ^.6

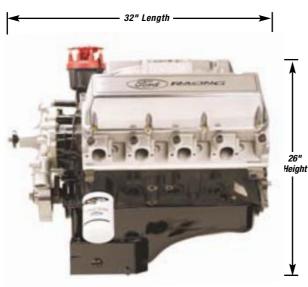
### **SUMMARY**

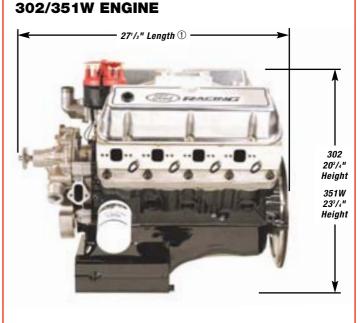
Once a correction factor is calculated, the observed numbers are multiplied by it. These are the "corrected values." Undoubtedly, the best scenario is to test under the exact same conditions each time. If that is not achievable, a good rule of thumb is that engines corrected to the SAE J607 standard will yield corrected torque and power numbers approximately 4% higher than those corrected to SAE J1349. Unfortunately, SAE J607 conditions are not very realistic. The most commonly accepted standard is the SAE J1349. This corrects to a more practical set of atmospheric conditions and utilizes coefficients to compensate for an 85% mechanical efficiency. Please note temperature is converted Rankin degrees in both formulas.

# ENGINE COMPONENTS

# ENGINE SWAP SIZE CHART (SEE INSTALLATION NOTES PAGES 50-59 FOR WEIGHTS)

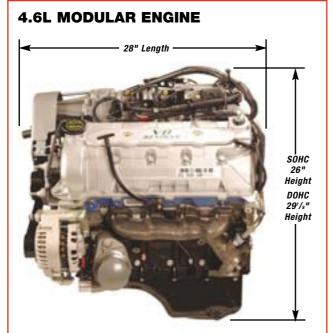






NOTE:  $302 - 18^{3/4}$ " Width / 351W - 21" Width. NOTE: ① With short serpentine water pump M-8501-A50.

NOTE: 26: Width



NOTE: SOHC-255/8" Width/DOHC-30" Width

### Did you know...

That an aluminum 4.6L block weighs approximately 85 lbs. while the iron versions weigh approximately 155 lbs.

### Did you know...

The new 3-valve 4.6L engine in the 2005-06 Mustang weighs only 420 lbs. dressed.

### Did you know...

5.4L blocks received more material in 2002 for Noise Vibration and Harshness (NVH) control. Pre-2002 blocks weighed 185 lbs., later blocks weigh 200 lbs.

### Did you know...

You can easily distinguish Romeo vs. Windsor 4.6 liter iron blocks by the main caps. Windsor blocks have dowels to locate the main caps while Romeo blocks use jack screws to locate the maincaps.

### Did you know...

All 5.4L iron blocks are made with the Windsor main cap style. Even those that go into engines coming out of Romeo engine plant.



### 347 CID FORD RACING FORGED STROKER SHORT BLOCK ENGINE ASSEMBLY M-6009-C347\*

- 5.0L 2-bolt "Sportsman" block M-6010-B50 with ARP® main cap studs
- Forged aluminum .030" overbore pistons with valve reliefs for Z304, N351, GT-40 and other inline valve Windsor cylinder heads. Valve notches approximately 4cc. Check valve to piston clearance for valve lift over .500". Piston to deck .000" (nominal)
- 3.40 stroke forged steel stroker crank
- M-6200-D50 forged steel connecting rods
- Clevite<sup>®</sup> rod and main bearings ٠
- Balanced for 28.2 in./oz. damper and flywheel
- Assembled and ready for your heads, cam and timing chain set
- M-6013-C347 Stroker Crank kit also available. See page 76
- Photo and specs may vary



### **5.8L/351W FORD RACING PERFORMANCE SHORT BLOCK ENGINE ASSEMBLY** M-6009-Z58

- M-6200-D351 forged steel connecting rods
- Forged aluminum pistons, 4.00" bore with 17cc dish ٠
- Ford Racing 5.8L/351W 2-bolt main block ٠
- Camshaft and timing chain set not included
- Zero balance
- Photo and specs may vary

**NOTE:** Valve notches work with most cams and Ford Racing cylinder heads. Use M-6051-CP331 or M-6051-S331 head gasket with Sportsman II block



### 392 CID FORD RACING PERFORMANCE STROKER SHORT BLOCK ENGINE ASSEMBLY M-6009-C392\*

- M-6303-B385, forged steel crankshaft
- M-6108-C392, forged aluminum pistons, 4.030" bore with 15cc dish
- M-6200-D351, forged steel connecting rods
- Ford Racing "Sportsman II" 5.8L/351W 2 bolt main block
- Camshaft and timing chain set not included
- Balanced for 28.2 in./oz.
- Photo and specs may vary •
  - NOTE: Valve notches work with most cams and Ford Racing cylinder heads. Use M-6051-S331 or M-6051-CP331 head gasket with "Sportsman II" block



### 460 FORD RACING PERFORMANCE SHORT BLOCK ENGINE ASSEMBLY M-6009-E460\*

### THIS HIGH-PERFORMANCE 460 CID 2-BOLT MAIN SHORT BLOCK ASSEMBLY INCLUDES:

- Remanufactured .030" overbore block
- Hypereutectic pistons (16cc dish 10.5:1 compression ratio w/CJ and SCJ head)
- · Heavy duty forged steel connecting rods
- Nodular iron crankshaft
- Our "hot" Ford Racing hydraulic flat tappet camshaft M-6250-C460
- Roller timing chain ٠

SCJ cylinder heads

· Fully assembled and balanced

- Pistons notched for CJ heads and SCJ heads
- Engine is externally balanced. Requires C-6 ٠ automatic flywheel M-6375-B460 or manual transmission flywheel M-6375-Z460

- Requires front counterweight M-6359-D460
- Same short block used to build the 550 horsepower M-6007-F460 crate motor
- Photo and specs may vary
- · Remanufactured blocks have a clean-up cut to the cylinder head deck, align honed main bearing bore, bottom tapped holes (no heli-coils), new freeze plugs and cam bearings **NOTE:** Early production 460 short blocks may require machining pistons for valve clearance

when used with performance heads and camshafts.

### 514 FORD RACING PERFORMANCE SHORT BLOCK ENGINE ASSEMBLY M-6009-D514\*

- Has Eagle® H-beam connecting rods M-6200-C514
- Custom forged 28cc dished pistons .030" overbore with valve clearance notches for Ford Racing Cobra Jet and Super Cobra Jet aluminum cylinder heads

• 9.8:1 compression ratio when used with 72cc

M-6303-A514 nodular cast iron crankshaft

Remanufactured production 2-bolt main cap block

- No camshaft or timing set included • Engine is externally balanced. Requires C-6 automatic flywheel M-6375-B460 or manual
  - transmission flywheel M-6375-Z460 Requires front counterweight M-6359-D460

to make our M-6007-D514 engine assembly.

- M-6013-C514 Stroker Crank Kit also available. See page 76
  - Photo and specs may vary





# ENGINE BLOCKS

Ford Racing offers engine blocks for most competition categories. They range from 302 to mammoth 600 cubic inch V-8 drag race and truck pull motors. Refer to pages 64-68 for full description of engine block design features. You will also find a wide variety of Ford Racing engine components to complete your engine assembly.

### **BOSS 302 CYLINDER BLOCK**

### M-6010-B0SS302\*

- The legend is reborn with this all-new 302 block! Stronger than the original!
- 4.125" bore capacity
- 8.2" deck height
- Splayed 4-bolt main on 2, 3, 4 maincaps
- Fits factory Mustang oil pan with custom oil pump pick up tube
- · Revised oiling and cooling system passageways
- · Siamesed bore with drilled coolant crossover holes
- · Increased bulkhead material
- Threaded core plugs, like original Boss 302
- 1/2" head bolts
- Uses common OD cam bearings M-6261-J351/R351
- ٠ Coming mid-2006
- Great price and value ٠
- The foundation for 8.2" deck projects



# **302 SIAMESE BORE WET SUMP BLOCK**

M-6010-R302\* 8.200" Deck Height

- Cast iron block with 4-bolt main caps on journals 2, 3, 4 and strengthened structural sections
- Nodular iron main caps
- Can be bored/stroked to produce 360 cu./in.
- 8.200" deck height
- Siamese cylinder bores
- Wet sump oiling design (can be made dry sump)
- 2.248" main journal diameter (stock 302 size)
- · Weighs approximately 160 lbs.
- For professional competition
- Semi-finished lifter bores and main bearing bores-must be honed to fit
- Uses common OD cam bearings M-6261-J351/R351 (See page 68)



### **302 SIAMESE BORE WET SUMP BLOCK**

- M-6010-S302\* 8.700" "Tall" Deck Height
  Cast iron block with 4-bolt main caps on journals 2, 3, 4
- and strengthened structural sections
- Nodular iron main caps
- Can be bored/stroked to produce 380 cu./in.
- 8.700" deck height
- Siamese cylinder bores
- Wet sump oiling design
- 2.248" main journal diameter (stock 302 size)
- Weighs approximately 175 lbs.
- For professional competition
- Semi-finished lifter bores and main bearing bores—must be honed to fit
- Uses common OD cam bearings M-6261-J351/R351 (See page 68)



NOTE: Siamese blocks are solid casting between the cylinder bores. There are no water passages between them. This is done to increase the strength of the block.





# ALUMINUM 302/351 STREET/RACE BLOCKS

### **302 ALUMINUM** WET OR DRY SUMP BLOCK. **380 CID CAPACITY**

M-6010-F302\* 8.200" Deck Height Heavy duty, lightweight alternative to cast iron.

- 356-T7 aluminum block with 4-bolt. steel billet main caps
- Iron sleeves, bore range 4.000-4.155"
- Siamese cylinder bores, 5.200" long
- · Finished main bearing bore for 2.248" journal diameter
- Uses common OD cam bearings. part number M-6261-J351/R351. See page 68
- Weighs approximately 100 lbs.
- Available from Raceparts Distribution, Inc. (704) 892-8688



**NOTE:** Siamese blocks are solid casting between the cylinder bores. There are no water passages between them. This is done to increase the strength of the block.

### **302 ALUMINUM** WET OR DRY SUMP BLOCK. **396 CID CAPACITY**

M-6010-F87\* 8.700" Deck Height Heavy duty, lightweight alternative to cast iron.

- 356-T7 aluminum block with 4-bolt. steel billet main caps
- Iron sleeves, bore range 4.000-4.155"
- Siamese cylinder bores, 5.700" long
- Finished main bearing bore for 2.248" journal diameter
- Uses common OD cam bearings, part number M-6261-J351/R351 (special order machining for roller cam bearings). See page 68
- Weighs approximately 115 lbs.
- Available from Raceparts Distribution, Inc. (704) 892-8688

### **351 ALUMINUM** WET OR DRY SUMP BLOCK, **427 CID CAPACITY**

M-6010-X352\* 9.200" Deck Height Heavy duty, lightweight alternative to cast iron.

- 356-T7 aluminum block with 4-bolt. steel billet main caps
- Iron sleeves, bore range 4,000-4,155"
- Siamese cylinder bores, 5.700" long ٠
- Finished main bearing bore • for 2.248" journal diameter
- Uses common OD cam bearings, part number M-6261-J351/R351 (special order machining for roller cam bearings). See page 68
- Weighs approximately 117 lbs.
- Available from Raceparts Distribution, Inc. (704) 892-8688

### **351 ALUMINUM** WET OR DRY SUMP BLOCK. **427 CID CAPACITY**

M-6010-X351\* 9.200" Deck Height Heavy duty, light weight alternative to cast iron.

- 356-T7 aluminum block with 4-bolt. steel billet main caps
- Iron sleeves, bore range 4.000-4.155"
- Siamese cylinder bores, 5.700" long
- Finished main bearing bore for 2.749" journal diameter
- Uses common OD cam bearings. part number M-6261-J351/R351 (special order machining for roller cam bearings). See page 68
- Weighs approximately 117 lbs.
- Available from Raceparts Distribution. Inc. (704) 892-8688

### **351 ALUMINUM** WET OR DRY SUMP BLOCK, **454 CID CAPACITY**

M-6010-Z351\* 9.500" Deck Height Heavy duty, lightweight alternative to cast iron.

- 356-T7 aluminum block with 4-bolt. steel billet main caps
- Iron sleeves, bore range 4.000-4.155"
- Siamese cylinder bores, 6.000" long
- Finished main bearing bore for 2.749" journal diameter
- Uses common OD cam bearings, part number M-6261-J351/R351 special order machining for roller cam bearings). See page 68
- Weighs approximately 124 lbs.
- Available from Raceparts Distribution, Inc. (704) 892-8688

## **351 ALUMINUM RACE BLOCK**

### M-6010-C450\*

- 4" to 4.125" bore capacity
- Centrifically cast liners
- All aluminum water jacket and oil galley plugs ٠
- 9.2" deck height

### · Four bolt main journals one through five

- Drv sump design •
- 2.750" main bearing journals ٠
- · Enclosed cam tunnel
- · Light weight at only 92 lbs.
- 7075 aluminum main caps
- · Recommended for Dirt late model, Sprint, 410 Sprint
- Use with M-6701-B351 crankshaft seal, M-6269-C450 cam thrust retainer, M-6268-C450 timing chain and gear set. M-6059-C450 timing cover, and M-6261-C450 cam bearings

## **CAM THRUST PLATE FOR C450 BLOCK**

I ow friction needle bearing thrust plate

### TIMING CHAIN COVER FOR C450 BLOCK M-6059-C450\*

- Fits 9.200" deck aluminum height "superblock" M-6010-C450
- Kit contains timing cover, crank seal and gasket

hlock



# ENGINE BLOCKS

### **351 SIAMESE BORE DRY SUMP BLOCK**

M-6010-R451\* 9.200" Deck Height

- Cast iron block with 4-bolt main caps
- Nodular iron main caps
- Can be bored/stroked to produce 427 cu. in.
- Siamese cylinder bores ٠
- Bore range from 4.000-4.180" ٠
- Dry sump oiling design
- 2.749" main journal diameter
- Weighs approximately 190 lbs.
- High-strength block for professional competition (Circle Track, Drag Racing)
- Semi-finished lifter bores and main • bearing bores-must be honed to fit
- Uses common OD cam bearings M-6261-J351/R351. See page 68

### **351 SIAMESE BORE** WET SUMP BLOCK

M-6010-V351\* 9.200" Deck Height

- Cast iron block with 4-bolt main caps on journals 2, 3, 4, 5 and strengthened structural sections
- Nodular iron main caps
- Can be bored/stroked to produce 427 cu. in. •
- Siamese cylinder bores •
- Bore range from 4.000-4.125" ٠
- Wet sump oiling design
- 2.749" main journal diameter (stock 351C size)
- · Weighs approximately 190 lbs.
- For professional competition (Circle Track, Drag Racing)
- · Semi-finished lifter bores and main bearing bores-must be honed to fit
- Uses common OD cam bearings M-6261-J351/R351. See page 68

**NOTE:** Siamese blocks are solid casting between the cylinder bores. There are no water passages between them. This is done to increase the strength of the block.

### **351 SIAMESE BORE DRY SUMP BLOCK**

M-6010-R452\* 9.200" Deck Height

- 4.180" Overbore Capacity
- · Cast iron block with 4-bolt main caps and strengthened structural sections
- Nodular iron main caps
- Can be bored/stroked to produce 434 cu. in.
- Siamese cylinder bores •
- Bore range from 4.000-4.180"
- Dry sump oiling design •
- 2.248" main journal diameter (stock 302 size)
- Weighs approximately 190 lbs.
- For professional competition (NASCAR)
- · Semi-finished lifter bores and main bearing bores-must be honed to fit
- Uses common OD cam bearings M-6261-J351/R351. See page 68

### **351 SIAMESE BORE DRY SUMP BLOCK**

M-6010-R453\* 9.200" Deck Height

- 4.060" Overbore Capacity
- · Cast iron block with 4-bolt main caps and strengthened structural sections
- Nodular iron main caps
- Can be bored/stroked to produce 434 cu. in.
- Siamese cylinder bores
- Bore range from 4.000-4.060"
- Dry sump oiling design
- 2.248" main journal diameter (stock 302 size)
- Weighs approximately 190 lbs.
- For professional competition
- Semi-finished lifter bores and main bearing bores-must be honed to fit
- Uses common OD cam bearings M-6261-J351/R351. See page 68



### **351 SIAMESE BORE WET SUMP BLOCK**

M-6010-W351\* 9.500" Deck Height

- Cast iron block with 4-bolt main caps on journals 2, 3, 4, 5 and strengthened structural sections
- Nodular iron main caps
- Can be bored/stroked to produce 454 cu. in.
- Siamese cylinder bores
- Bore range from 4.000-4.125" •
- Wet sump oiling design ٠
- 2.749" main journal diameter (stock 351C size)
- Weighs approximately 205 lbs.
- For professional competition (Circle Track, Drag Racing)
- Semi-finished lifter bores and main bearing bores-٠
- must be honed to fit Uses common OD cam bearings M-6261-J351/R351. See page 68



### 351 "SPORTSMAN III" WET SUMP BLOCK

### M-6010-B58\* 9.500" Deck Height

- · Cast iron block with 2-bolt main caps
- Nodular iron main caps
- Can be bored/stroked
- to produce 427 cu. in. • Non-siamese
- cylinder bores • Bore range from 4.000-4.030"
- · Wet sump oiling design
- 3.000" main journal diameter
- · Weighs approximately 200 lbs.
- · High-strength low-cost block for amateur competition (Circle Track)

66

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### 5.0L/302 HD "SPORTSMAN" BLOCK

\*Not legal for sale or use on pollution-controlled motor vehicles.

### M-6010-B50\* 8.200" Deck Height

High-strength low-cost block for drag and

- oval track racing
- Finished 4.000" bore
- Can be bored from 4.000-4.030"
- Finish machined ready-to-use (same as M-6010-A50)
- Main bearing bulkheads have added material
- 2-bolt main bearing caps have added material (similar to Mexican 302 and 289 HI-PO)
- Weighs approximately 10 lbs. more than stock late model block
- Improved strength cast iron
- Wet sump oiling system
- ٠ Accepts all production hardware including hydraulic roller cams

- Non-siamese cylinder design
- 2.2480" crankshaft journal diameter

Extensive dynamometer and in vehicle

should not be used for engines exceeding

All caps

\*\*Direct replacement part.

strengthened

testing has confirmed that this block

One-piece rear main seal

450 HP @ 6000 RPM

Recommended max. stroke 3.400"



### 460 SIAMESE BORE WET OR DRY SUMP BLOCK

- M-6010-A460\* 10.322" Deck Height • Cast iron block with 4-bolt main
- caps on journals 2, 3, and 4
- Nodular iron main caps
- Can be bored/stroked to produce 598 cu. in.
- Siamese cylinder bores
- Bore range from 4.360-4.600"
- Wet sump oiling design
- 3.000" main journal diameter
- Weighs approximately 290 lbs.
- High-strength block for professional competition (Circle Track, Drag Racing)

### 351 FORD RACING NON-SIAMESE BORE WET OR DRY SUMP BLOCK

### M-6010-M351\* 9.200" Deck Height

- Cast iron block with 4-bolt main caps on journals 2, 3, and 4
- · Nodular iron main caps
- Can be bored/stroked to produce 408 cu. in.
- Non-siamese cylinder bores
- Bore range from 4.000-4.030'
- Wet sump oiling design
- 2.749" main journal diameter
- Weighs approximately 200 lbs.
- High-strength block for professional competition (Circle Track, Drag Racing)
- Semi-finished main bearing bores and lifter bores must be honed to fit

### 351 FORD RACING NON-SIAMESE BORE WET OR DRY SUMP BLOCK

#### M-6010-N351\* 9.500" Deck Height

- Cast iron block with 4-bolt main caps on journals 2, 3, and 4
- Nodular iron main caps
- Can be bored/stroked to produce 434 cu. in.
- Non-siamese cylinder bores
- Bore range from 4.000-4.030"
- Wet sump oiling design
- 2.749" main journal diameter
- Weighs approximately 205 lbs.
- High-strength block for professional competition (Circle Track, Drag Racing)
- Semi-finished main bearing bores and lifter bores must be honed to fit

### 460 PRO STOCK BLOCK

- M-6010-A500\* 9.300" Deck Height
- Cast iron block with 4-bolt main caps
- Billet steel main caps
- Can be bored/stroked to produce 500 cu. in.
- Siamese cylinder boresBore range from
- 4.360-4.625"
- Dry sump oiling design
- 2.749" main journal diameter
- High-strength block for professional competition
- (Built specifically for Pro-Stock Drag Racing)
- 18-bolt cylinder M-6049-E460 head pattern
- Semi-finished block

### GENESIS 427 SIDE OILER CAST IRON BLOCK

- M-6010-A427\* 10.170" Deck Height
- Siamese cylinder walls
- Cross bolt main caps
- Maximum bore 4.400
- Delivered bore .005" under 4.250"
- Lifter galleys drilled for hydraulic lifters
- Weight 230 lbs.
- More technical information can be found at www.genesis427.com or call (317) 357-8767

### GENESIS 427 ALUMINUM CYLINDER BLOCK M-6010-B427\*

### 356-T6 aluminu

- 356-T6 aluminum Siamese cylinder walls
- Stattlese cyllinder Walls
   Elanged duotile iron -1-
- Flanged ductile iron sleeves
  Cross bolt billet main caps
- Uross poit pillet main ca Maximum bars 4 210"
- Maximum bore 4.310" Delivered bore. .005" under 4.250"
- Delivered bore, .005
   10,170% docts both
- 10.170" deck height
- Lifter galleys drilled for hydraulic lifters
- Weight 122 lbs.
- More technical information can be found at www.genesis427.com or call (317) 357-8767

**NOTE:** Siamese blocks are solid casting between the cylinder bores. These are no water passages between them. This is done to increase the strength of the block.

bores and lifter b

# **ENGINE BLOCKS**

ENGINE GROUP PART NUMBER	302 FORD M-6010-R302*	302 FORD M-6010-S302*	5.0L H0/302* M-6010-B50*	351 FORD M-6010-B58*	351 FORD M-6010-M351*	351 FORD M-6010-N351*
Description/Intended Usage	Professional Competition	Professional Competition	Amateur Competition	Amateur Competition	Professional Competition	Professional Competition
Block Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Nominal Deck Height	8.206"	8.700"	8.206"	9.500"	9.200"	9.500"
CID Capacity	363	380	347	408	408	434
Cylinder Design	Siamese	Siamese	Non-Siamese	Non-Siamese	Non-Siamese	Non-Siamese
Cylinder Bore Range	4.000-4.125"	4.000-4.125"	4.000-4.030"	4.000-4.030"	4.000-4.030"	4.000-4.030"
Oil Sump Design	Wet	Wet	Wet	Wet	Wet	Wet
Crankshaft Journal Diameter	2.2480"	2.2480"	2.2480"	3.0000"	2.7490"	2.7490"
Main Cap Bolts	Four on 2,3,4	Four on 2,3,4	Two	Two	Four on 2,3,4	Four on 2,3,4
Bearing Cap Material	Nodular Iron	Nodular Iron	Nodular Iron	Nodular Iron	Nodular Iron	Nodular Iron
Recommended Max. Stroke	3.400"	3.550"	3.400"	4.000"	4.000"	4.250"
Recommended Max. HP @ RPM	1200@8500 RPM	1200@8500 RPM	est. 450@6000 RPM	700@7000 RPM	750@8600 RPM	750@8600 RPM
Rear Crankshaft Seal Type	One Piece	One Piece	One Piece	One Piece	One Piece	One Piece
Cam Bearing Design	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	Std.	Std.	Std.	Std.
Oil Filter Mount	Block	Block	Block	Block	Block	Block
Hyd. Roller Cam. Compatible	Yes	Yes	Yes	Yes	-	_

ENGINE GROUP PART NUMBER	351 FORD <mark>M-6010-R451</mark> *	351 FORD M-6010-R452*	351 FORD M-6010-V351*	351 FORD M-6010-W351*	460 FORD M-6010-A460*	460 FORD M-6010-A500*
Description/Intended Usage	Professional Competition	Professional Competition	Professional Competition	Professional Competition	Professional Competition	Professional Competition
Block Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Nominal Deck Height	9.200"	9.200"	9.200"	9.500"	10.322"	9.000"
CID Capacity	427	427	427	454	598	537
Cylinder Design	Siamese	Siamese	Siamese	Siamese	Siamese	Siamese Sleeves
Cylinder Bore Range	4.000-4.180"	4.000-4.180"	4.000-4.125"	4.000-4.125"	4.360-4.600"	4.360-4.625"
Oil Sump Design	Dry	Dry	Wet	Wet	Wet	Dry
Crankshaft Journal Diameter	2.749"	2.248"	2.749"	2.749"	3.000"	2.749"
Main Cap Bolts	Four	Four	Four on 2,3,4,5	Four on 2,3,4,5	Four on 2,3,4	Four
Bearing Cap Material	Nodular Iron	Nodular Iron	Nodular Iron	Nodular Iron	Nodular Iron	Billet Steel
Recommended Max. Stroke	4.000"	4.000"	4.000"	4.250"	4.500"	4.000"
Recommended Max. HP @ RPM	750@8600 RPM	750@8600 RPM	750@8600 RPM	750@8600 RPM	1500@8000 RPM	1500@9000 RPM
Rear Crankshaft Seal Type	One Piece	One Piece	One Piece	One Piece	Two Piece	Two Piece
Cam Bearing Design	M-6261-R351 Common Journal Dia. Cam Req'd. M-6261-J351 Standard Cam	Std.	Roller			
Oil Filter Mount	Remote	Remote	Remote	Remote	Block	Remote
Hyd. Roller Cam Compatible	Yes	Yes	Yes	Yes	_	-

### **CAMSHAFT BEARINGS**

**M-6261-R351\*** 351 Ford Racing Blocks Common outer and inner diameter replacement cam bearings for use in M-6010-R302/S302/R351/R352/S351/V351/W351/R451/R452/R453. Use with custom ground common OD camshaft.

### M-6261-J351\*

Common outer diameter service replacement cam bearings for Ford Racing 302 and 351 aluminum cylinder blocks and M-6010-R302/ S302/R351/R352/S351/V351/W351/ R451/R452/R453 cast iron blocks. Use with standard camshaft.



## **OIL GALLERY RESTRICTOR KITS**

M-6799-A302\* M-6799-R351\*

289/302/351W 351 Ford Racing M-6010-R351/R352/

S351/V351/W351

Increases oil flow to main bearings by reducing oil to valve train.





M-6799-A302 shown

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# **CYLINDER HEADS**



### **GT-40X XTRA PERFORMANCE "TURBO-SWIRL" ALUMINUM CYLINDER HEADS**

M-6049-X303\*

M-6049-X305\*

Complete Head (64cc Chamber) Complete Head (58cc Chamber)



- For use on 289/302/351 Windsor-style engines
- Improved air flow over original GT-40 aluminum heads
- Intake flows approximately 240 cfm at .550" lift (at 28" of H<sup>2</sup>0)
- Exhaust flows approximately 170 cfm at .500" lift (at 28" of H<sup>2</sup>0)
- Machined for 1.94" intake and 1.54" exhaust valve diameters
- Unlike some aftermarket heads, our GT-40 heads use either GT-40 or aftermarket performance intake manifolds, headers, and valve covers
- Intake port volume 178cc, exhaust port volume 62cc
- High-temperature exhaust valve seats. Thick deck for improved sealing, increased section thickness in critical areas for porting, and webbed rocker bosses for improved strength. Designed for bolt-on rocker arms, machined for tapered seat spark plug or gasketed. Compatible with Ford Racing intakes, headers, and valve train components. Can be machined for diagonal exhaust header flange mounting

- High-quality original equipment style 356-T6 aluminum castings, machining and components
- Each aluminum head weighs approximately 22 lbs. approximately 25 lbs. lighter than each cast iron GT-40 head
- These GT-40 style heads use AGSF-32C spark plugs
- Each GT-40X head is leak tested prior to assembly
- Head assembly consists of bare head M-6049-X302/X304 and GT-40 valve train kit M-6090-X302 featuring stainless steel valves. The valve springs are compatible with all Ford Racing roller camshafts

### **INSTALLATION NOTES**

THE FAST, EASY WAY TO BOLT-ON 65 HORSEPOWER! TRUE BOLT-ON PERFORMANCE

- Will not fit 1986 5.0L with flat-top pistons unless pistons are notched for valve relief
- Must use head bolt kit M-6065-D289 to install cylinder heads on 289/302 blocks or head bolt and head gasket kit M-6051-A50 and intake gasket M-9439-A50/A51
- Check rocker arm clearance to valve springs with production rocker arms
- Check your intake manifold for port match, not all intakes are compatible due to the tall high-flow ports
- Must use M-9439-A50 intake gasket

### FORD RACING PERFORMANCE PARTS "Z" ALUMINUM HEAD



Bare Head Complete Head





### **BARE HEAD FEATURES**

- This cylinder head was designed using Solid Modeling Technology
- Cast from prime A356 T6 aluminum
- Fits 5.0L/5.8L Windsor engines
- Heads are cast with high-flow ports
- 20° inline valves
- Suggested valve sizes: 2.02" intake and 1.60" exhaust
- Requires competition valve job and bowl blending
- Steel alloy intake and exhaust valve seats installed (no valve job)
- Manganese-bronze valve guides installed with semi-finished ID
- 63cc CNC'd combustion chamber
- Intake port volume as cast: 204cc
- Exhaust port volume as cast: 85cc
- · Bare head weighs 27 lbs.
- Accepts both tapered seat and gasket style 14mm spark plugs (Motorcraft AGSP-32-PP, Autolite 3924, 3925)
- Requires guide plate M-6566-Z304D (not included)
- Requires 7/16" screw-in studs (not included)
- Requires M-6564-F351 roller rocker arms (not included)
- Uses M-6505-B304 exhaust valve and M-6507-A304 intake valve (not included)
- Raised exhaust port exit, custom headers may be required

#### **ASSEMBLED HEAD FEATURES**



ENGINE

- Premium stainless steel 2.02" intake M-6507-A304 and 1.60" M-6505-B304 exhaust valves
- Uses M-6513-BH Beehive-style valve springs with machined retainers and machined valve locks. Most hydraulic cams can be used with these springs. 130 lbs. @ 1.800", 293 lbs. @ 1.200" and CB @ 1.085"
- Includes laser-cut guide plates M-6566-Z304D for use with 5/16" pushrods and 7/16" rocker studs
- Requires M-6564-F351 roller rocker arms (not included)
- Check piston to valve clearance including radial valve clearance before installing these cylinder heads on your engine
- Cork valve cover gasket recommended

### TYPICAL AIRFLOW (@ 28" OF H<sup>2</sup>O DEPRESSION) WITH 2.02 INTAKE VALVE, 1.60 EXHAUST VALVE AND COMPETITION VALVE JOB

LIFT	INTAKE FLOW (SCFM)	EXHAUST FLOW (SCFM)	
.050	31.1	26.4	
.100	64.6	55.8	
.150	103.0	84.6	
.200	135.3	113.3	
.250	167.0	146.8	
.300	199.0	171.6	
.350	227.2	190.2	
.400	245.2	200.4	
.450	259.8	207.2	
.500	271.9	212.8	
.550	277.3	218.1	

# CYLINDER HEADS

### FORD RACING "SPORTSMAN" SHORT TRACK CAST IRON CYLINDER HEADS Bare Head

M-6049-N351\*



- For use in NASCAR Late Model Stock, I.M.C.A., D.I.R.T., and most other stock car sanctioning groups on 351W engines
- Much improved air flow over previous E351 heads
- Developed by Ford Racing with the help of Larry Lackey and Robert Yates of Robert Yates Racing
- Machined for 2.02" intake and 1.60" exhaust valve diameters
- Intake and exhaust valves have been moved .070" to unshroud the intake valve
- Valve angle changed from 20° to 10° to further improve air flow
- Intake port volume 195cc, exhaust port volume 78cc nominal
- Accepts stud girdle M-6569-C351
- Thick deck and reinforced structure for . improved sealing, increased section thickness in critical areas and webbed rocker bosses for improved strength. Designed for stud mount rocker arms. Compatible with stock and Ford Racing intakes
- These heads use .708" reach tapered seat spark plugs depending on application

#### INSTALLATION NOTES

- Requires M-6564-F351/J351 roller rocker arms with offset intake valve pushrod cup
- Unique header flange required
- Must use head bolt kit M-6065-C351 to install cylinder heads

#### THESE HEADS MAKE SO MUCH POWER THAT BRAND "X" RACERS WANT THEM **DISQUALIFIED FROM "SPORTSMAN"** COMPETITION!

6049-N351*:
Pushrod guideplate
(pkg. of 8)
Rocker arm studs
(pkg. of 16)
High-flow stainless
steel exhaust valve
High-flow stainless
steel intake valve
Retainers (pkg. of 16)

### FORD RACING "SPORTSMAN" SHORT TRACK CAST IRON CYLINDER HEADS

M-6049-N352\*

Bare Head (64cc Chamber) "Too Hot for NASCAR Sportsman Head"



- M-6049-N352 cylinder heads have not been approved for the NASCAR Late Model Stock Series
- Several casting and machining changes have been incorporated in the improved N351/N352 cylinder head to improve durability and flexibility
- M-6049-N351/N352 have internal posts and ribs added to improve head gasket life by reducing head deck flexing
- M-6049-N351/N352 have material removed over the intake ports to reduce weight
- M-6049-N352 has improved valve seat machining to reduce "sinking" the valve seat too far into the port
- M-6049-N352 has reduced intake and exhaust port volumes to better suit the smaller displacement engines (302 CID) and 351 CID engines with limited modifications that are the most popular basis for entry level oval track applications where these heads are used
- M-6049-N352, intake port volume reduced 8cc with no reduction in flow due to removal of the bump required in the current port for pushrod clearance
- M-6049-N352, exhaust port volume reduced 3cc with no reduction in flow to restore the port size near the valve seat which had gradually increased due to core box wear
- These heads use .708" reach tapered seat spark plugs depending on application

### **INSTALLATION NOTES**

- Requires M-6564-F351/J351 roller rocker arms with offset intake valve pushrod cup
- Unique header flange required
- Must use head bolt kit M-6065-C351 to install cylinder heads

#### THESE HEADS MAKE SO MUCH POWER THAT BRAND "X" RACERS WANT THEM **DISQUALIFIED FROM "SPORTSMAN"** COMPETITION!

Parts to assemble M-6049-N351\*: M-6566-D251\* Durals and an elaboration

IVI-0000-D301~	Pushrod guideplate
	(pkg. of 8)
M-6527-C311*	Rocker arm studs
	(pkg. of 16)
M-6505-A351*	High-flow stainless
	steel exhaust valve
M-6507-A351*	High-flow stainless
	steel intake valve
M-6514-A50*	Retainers (pkg. of 16)



# HIGH-PORT HEAD FOR ALL-OUT PERFORMANCE

- M-6049-SC1\*
- Unfinished combustion chambers, typical finished volumes range from 40cc to 70cc
- Raised intake and exhaust runners for better airflow and greater power
   The 000 and 051 Fand Daring blacks
- Fits 302 and 351 Ford Racing blocks
- Used for Drag, Sprint Car and Circle Track Racing
- Intake and exhaust runner raised .400" over "Yates" C3 head for better flow characteristics
- Intake valves up to 2.180" diameter, 5.685" long
- Exhaust valves up to 1.625" diameter, 5.565" long
- · Redesigned integral rocker pad for greater stiffness
- Uses M-9424-W352 intake manifold with 9.200" deck block
- Uses Motorcraft AGS-Series spark plugs
- Cylinder head comes semi-finished. Machining does not include valve seat bores
- Must be ported
- · Bronze guides and valve seats included

# **HIGH-PORT NASCAR HEAD**

# M-6049-D3\*

- M-6049-D35\* Without seats, guides or pushrod holes
- Fits 5.0L and 5.8L Ford Racing blocks
- Raised intake and exhaust ports
- Used primarily in NASCAR and ARCA racing
- Intake and exhaust runners raised .400" over "Yates" C3 head
- Capable of 400 CFM intake, 267 CFM exhaust
- Accepts intake valves up to 2.180" diameter, exhaust valves up to 1.625" diameter
- Integral rocker pad for greater stiffness
- Cylinder head comes semi-finished. Combustion chamber and ports, unfinished
- Bronze guides and valve seat inserts included (not installed)
- Intake manifold mounting bolt holes 90° to mounting flange
- Use with M-9424-D451 or D452 intake manifold

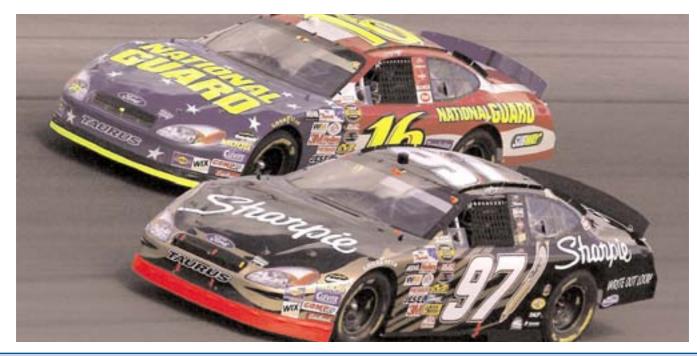












# **CYLINDER HEADS**

# FORD RACING 460 "SPORTSMAN" WEDGE-STYLE CYLINDER HEADS

# M-6049-C460\*

- For use with M-6010-A460/A600 Ford Racing cylinder block
- Used for professional competition and serious "Sportsman" racers
- Made from 356-T6 aluminum, with bronze valve guides, and a premium valve seat insert material compatible with titanium valves
- Valve angles are 7.5° intake, 8.0° exhaust with no side cant
- Raised intake and exhaust ports
- 65cc wedge-style combustion chamber
- 4.600" recommended bore size (4.500" minimum)
- 2.450" intake, 1.900" exhaust recommended diameters
- Port and combustion chamber design based on Ford Racing 351 "Yates" cylinder head







#### NHRA PRO STOCK CYLINDER HEAD M-6049-E460\*

- For use with M-6010-A500 Ford Racing cylinder block, other blocks require modification to accept this head
- Used for professional competition: NHRA Pro-Stock Class
- Made from 356-T6 aluminum, with steel valve guides with a bronze liner, and a premium valve seat insert material compatible with titanium valves
- Raised intake and exhaust ports
- 65cc wedge-style combustion chamber
- 4.600" recommended bore size minimum
- 2.450" intake, 1.880" exhaust recommended valve diameters
- Shaft-mounted rocker arms and offset roller lifters required
- · Wedge-style combustion chamber, canted valves and tall, high-flow ports
- Requires custom made intake









# SUPER COBRA JET CYLINDER HEADS

#### M-6049-SCJ\* Bare Head

M-6049-SCJA\* Assembled Head for 429-460 Engines

M-6049-SCJB\* Assembled Head for 514 Engines

- Revised valve angles and locations to reduce cylinder wall shrouding and improve flow
- Redesigned combustion chambers to accommodate the more centrally located valves
- Uses same valves, valve springs, retainers and standard 7/16" stud mounted roller rockers as current Ford Racing 429 Cobra Jet cylinder heads. Requires new pushrod guide plates (M-6566-SCJ) and new pushrods, M-6565-P460 or R460
- · Standard Cobra Jet intake and exhaust manifolds bolt on
- Current valve covers fit
- 2.200" intake valve, 1.76" exhaust valve
- · Flows approximately 330 cfm intake and 225 cfm exhaust
- 72cc combustion chambers
- 290cc intake runner,
- 148cc exhaust runner
  25-50 HP increase over current Ford Racing aluminum Cobra Jet heads depending on displacement and camshaft
- The best street/strip Ford big block cylinder head on the market today!
- Uses Motorcraft AGSP series spark plugs
- NOTE: If replacing current or production Cobra Jet heads, new intake valve notches are required









# VALVE TRAIN COMPONENTS INSTALLED IN M-6049-B429/SCJA\* "COBRA JET" AND "SUPER COBRA JET" CYLINDER HEADS

PART NUMBER	DESCRIPTION	NOTES
M-6507-A429*	Intake Valve	Stainless Steel (2.25" dia.)
M-6507-B429*	Intake Valve	Stainless Steel (2.20" dia.)
M-6505-A429*	Exhaust Valve	Stainless Steel (1.76" dia.)
M-6571-B221*	Valve Stem Seal	Nylon
M-6536-E351	Valve Spring Seat for CJ	1.460" OD springs
M-6513-A351	Valve Springs ①	For use with Ford Racing hydraulic camshaft M-6250-A443. Spring load: 130 lbs.–closed, 375 lbs.–open. For other camshafts, follow manufacturers recommendations.
M-6514-A50	Valve Spring Retainers	7° Retainers
M-6518-B351	Valve Spring Keepers	Use with 7° retainers.
M-6527-C311	Rocker Arm Studs	7/16" with or without stud girdle. (Engine Set)
M-6566-E429*	Pushrod Guide Plates for CJ	Flat design for .375" dia. pushrods. (Engine Set)
M-6566-SCJ*	Pushrod Guide Plates for SCJ	Flat design for .375" dia. pushrods. (Engine Set)
M-6536-SCJ*	Valve Spring Seat for SCJ	Spring OD 1.460", Cup OD 1.680", Cup ID .577", Material machined steel, Thickness .062"

NOTE: 10 CJ cylinder head accepts valve springs with up to 1.625" OD and installed height of 1.900".

# **2.3L ALUMINUM CYLINDER HEAD**

M-6049-A230\* Competition only aluminum cylinder head M-6049-E23A\* D-Port aluminum head Available from: Esslinger Engineering 14320 Potrero South El Monte, CA 91733 Telephone: (626) 444-4919

#### 4.9L 6-CYLINDER RACE HEAD M-6049-149\*

High-flow aluminum drag race only cylinder head for 4.9L inline 6-cylinder. No water passages in cylinder head. NHRA accepted for Competition Eliminator as OEM generally available.

Order through Alan Johnson Cylinder Heads (805) 922-1202.

# INTAKE MANIFOLDS

### 289/302 PERFORMANCE INTAKE 289/302 DUAL PLANE M-9424-A321\*

- For use with inline valve production type cvlinder head
- Dual plane mid-range intake, 1500-6000 **RPM** range
- Uses aftermarket Holley or production 4-barrel carburetor
- For use on high-performance street car applications •
- NOTE: Does not fit GT-40 "X" heads or Z304 heads.



#### **302 FORD RACING SINGLE** PLANE C3L INTAKE M-9424-B302

- · For use with 8.200" deck height block
- and "Yates" C3L heads
- 7.75" carburetor pad
- Single plane intake
- · For use with any high-RPM application with C3L cylinder heads



#### **351W SINGLE PLANE "VICTOR JR." INTAKE MANIFOLD** M-9424-V351\*

- For use with 9.500" deck height block and inline valve heads
- 5.75" carburetor pad
- Single plane "Victor Jr." style intake 3500-7500 RPM range
- · For use with any high-RPM small block application



#### 351 FORD RACING/ 351 "SPORTSMAN" **DUAL PLANE INTAKE** M-9424-C358\*

- For use with 9.200" deck height block and M-6049-N351 cylinder heads
- Dual plane "Performer RPM" type
- Approved for NASCAR Late-model Stock Class
- For use on mid-range power combinations: Circle Track cars
- Available from Raceparts Distribution. Inc. (704) 892-8688

# **"PERFORMER RPM" INTAKE MANIFOLD** M-9424-E302\*

- For use with 8.206" deck height block and inline valve heads
- 4.30" at the front of the carburetor pad. 5.50" at the rear
- Dual plane "Performer RPM" style intake
- 1500-6500 RPM range
- For use with any mid-RPM small block application, great for street cars and mild race engines



#### 289/302 SINGLE PLANE **INTAKE MANIFOLD** M-9424-C82S<sup>3</sup>

- High rise, short runner design intake manifold
- Cast from 356A aluminum
- Designed for 8.2" deck height blocks • Tapered ports sized for moderate
- flow heads
- Has standard Hollev carburetor pattern
- Has unmachined injector bosses
- Designed for Windsor style heads
- Slotted holes for addressing decked blocks
- 6.00" carburetor pad
- 4000-8000 RPM range



# **351W DUAL PLANE "PERFORMER RPM"** INTAKE MANIFOLD

- For use with 9.500" deck height block and inline valve heads
- 4.30" at the front of the carburetor pad, 5.30" at the rear
- Dual plane "Performer RPM" style intake
- 1500-6500 RPM range
- For use with any mid-RPM small block application, great for street cars and mild race engines



#### 289/302 SINGLE PLANE **"VICTOR JR." INTAKE** MANIFOLD M-9424-D302\*

- For use with 8.206" deck height block and inline valve heads
- 5.35" at the front of the carburetor pad. 5.42" at the rear
- Single plane "Victor Jr." style intake 3500-8000 RPM range
- For use with any high-RPM small block application



#### **351W FORD RACING DUAL PLANE INTAKE** MANIFOLD M-9424-P351\*

- For use with 9.500" deck height block and inline valve heads
- Carburetor pad dimensions, 3.60" front, 4.95" rear
- Dual plane style intake 1500-6000 RPM range
- For use with any mid-RPM small block application, great for streetcars and very mild race applications



# **351W FORD RACING DUAL PLANE INTAKE MANIFOLD** POLISHED

# M-9424-P351P\*

- For use with 9.500" deck height block and inline valve heads
- Carburetor pad dimensions, 3.60" front, 4.95" rear
- Dual plane style intake 1500-6000 RPM range
- For use with any mid-RPM small block application, great for streetcars and very mild race applications







# **351 FORD RACING SINGLE PLANE D3 NASCAR RESTRICTOR INTAKE**

M-9424-D451\*

- · For use with 9.200" deck height block and M-6049-D3 heads and restrictor plate
- 6.40" carburetor pad
- Single plane intake used for NASCAR restrictor plate rule.
- With extra material for runner modification

#### **351 FORD RACING SINGLE** PLANE INTAKE MANIFOLD M-9424-D452\*

- The latest intake manifold for NASCAR
- Fits 9.200" deck height blocks with M-
- 6049-D3/D35 heads • Weighs 19 lbs. with generous wall thickness for custom porting
- 4.00" depth carb. flange to plenum floor

#### 429/460 SINGLE PLANE **DOMINATOR FLANGE INTAKE MANIFOLD** M-9424-H429\*

- For use with 10.322" deck height block and production, and M-6049-A429/B429 heads
- 6.30" carburetor pad
- Single plane "Victor" style intake 3500-8000 RPM range with Dominator carburetor flange
- · For use with any high-RPM big block application



- Tuned for substantial power improvement over 8500 RPM compared to other aftermarket manifolds

M-9424-D451 shown

- Does not have a valley tray (for weight reductions)
- Replaces M-9424-W351

#### 460/460 FORD RACING SINGLE PLANE INTAKE MANIFOLD M-9424-C460\*

- For use with 10.322" deck height block and M-6049-C460 "wedge" race heads
- 8.64" carburetor pad height
- High-RPM power
- · For use on drag race engines



### 429/460 SINGLE PLANE **"VICTOR JR." INTAKE** MANIFOLD M-9424-G429\*

- For use with 10.322" deck height block and production, or M-6049-A429/B429/CJ/SCJ heads
- 6.30" carburetor pad
- Single plane "Victor Jr." style intake 3500-8000 **RPM** range
- For use with any high-RPM big block application



## **INTAKE MANIFOLD – ALUMINUM WITH HOLLEY 4V BOLT PATTERN**

Ford Racing offers 4V single plane and dual plane intake manifolds in low and high designs. Note that the 351 Ford Racing engine block is available in two deck heights (9.200" and 9.500"). The carburetor pad dimensions are listed to assist in calculating underhood clearance.



Carburetor Pad Dimensions

PART NUMBER	ENGINE BLOCK	DECK HEIGHT	CA Cylinder Heads	RBURETOR PAD "A"	DIMENSIONS "B"	TYPE/NOTES
M-9424-A321*	289/302	8.206"	Inline Valves	4.52"	5.85"	Dual plane, 1500-6000 RPM range
M-9424-B302*	302 Ford Racing	8.200"	Canted Valve	7.75"	7.75"	Single plane
M-9424-C358* 1 <sup>©</sup>	351 Ford Racing/ 351C	9.200"	M-6049-N351	—	_	Dual plane performer approved for NASCAR late model stock
M-9424-C460*	Ford Racing 460	10.322"	M-6049-C460	8.64"	8.64"	Single plane single 4V
M-9424-D302*	289/302	8.206"	Inline Valves	5.35"	5.42"	Single plane, "Victor Jr." 3500-8000 RPM range
M-9424-E302*	289/302	8.206"	Inline Valves	4.30"	5.50"	Dual plane "Performer RPM" 1500-6500 RPM range
M-9424-G429*	429/460	10.322"	Production & M-6049-A42 B429/SCJ/SCJA/SCJB	29/ 6.30"	6.30"	Single plane, "Victor"
M-9424-H429*	429/460	10.322"	Production & M-6049-A42 B429/SCJ/SCJA/SCJB	29/ 6.30"	6.30"	Single plane, Dominator Flange
M-9424-V351*	351W	9.500"	Inline Valves	5.75"	5.75"	Single plane, "Victor Jr." 3500-7500 RPM range
M-9424-P351*	351	9.500"	Inline Valves	3.60"	4.95"	Dual plane intake manifold 1500-6000 RPM range
M-9424-Z351*	351	9.500"	Inline Valves	4.30"	5.30"	Dual plane intake manifold 1500-6000 RPM range

NOTES: 1) Will not fit 351C cast iron cylinder heads

② Call Raceparts Distribution, Inc. (704) 892-8688



# STROKER CRANKSHAFT KITS

# **STROKER KIT FOR 302**

- M-6013-B347\* 347 CID, 030" Overbore
- M-6303-B340 nodular cast iron crankshaft
- Hypereutectic flat top pistons with valve reliefs for Windsor head
- Forged steel connecting rods: 5.400" length
- High-performance piston rings, rod and main bearings
- Fits 1983-01 302 blocks with one-piece rear main seal
- Requires machining and balancing, designed for 28.2 in./oz. external



# 392 FORGED STEEL STROKER CRANKSHAFT KIT

### M-6013-C392\*

- M-6303-B385 Forged 4340 steel crankshaft 3.85" stroke
- Forged pistons, 4.030" bore with a 15cc dish and valve notches for inline Windsor style heads
- Federal Mogul high-performance rod and main bearings
- Speed Pro piston rings
- Heavy duty SAE 4130 forged steel connecting rods, 5.956" bushed for full floating wrist pins, ARP rod bolts (M-6200-D351)
- For use in 1971-97 351W blocks, 1984 and newer blocks with onepiece rear main seal recommended
- Requires machining and balancing



### 347 FORGED STEEL STROKER CRANK KIT FOR 302 M-6013-C347\*

- M-6303-C340 Forged 4340 steel crankshaft 3.40" stroke
- Forged aluminum flat top pistons 4.030" with valve reliefs for inline Windsor style heads
- Clevite<sup>®</sup> rod and main bearings
- Speed Pro Piston rings
- M-6200-D50 5.400" long forged steel connecting rods
- Fits 1983-00 302 blocks with one-piece rear seal
- Requires machining and balancing, designed for 28.2 in./oz. external balance factor



### 514 STROKER KIT FOR 429/460 M-6013-C514\*

- M-6303-A514 nodular cast iron crankshaft 4.30" stroke
- Forged pistons (.030" overbore) with valve notches for production and Cobra Jet (M-6049-A429) and SCJ (M-6049-SCJ) cylinder heads, 30cc dish, .990" wrist pins
- M-6200-C514 eagle H-beam SAE 4340 forged steel connecting rods with ARP bolts
- Speed Pro piston rings and Federal Mogul bearings
- Fits 1968-96 blocks
- Use with external balance counterweight and flywheel
- Requires machining and balancing
- Replacement pistons (sold in set of 8) 28cc dish, M-6108-C514 oversize bore 4.390" (521ClD)



# **CONNECTING RODS AND PISTONS**



# 460 CONNECTING ROD SET

- M-6200-A75\* (Set of 8)
- Production HD truck connecting rods
- Great for engine rebuilds
- All stock dimensions, for press fit wrist pin



# 5.0L/302 PRODUCTION CONNECTING RODS

#### M-6200-M50\*\* (Set of 8)

- Connecting rods for 1968-00 5.0L/302
- For about the cost of a quality remanufactured set, these new
- connecting rods are ready to go. No exchange required • 5.090" rod length



# 5.0L/302 "SPORTSMAN" CONNECTING RODS

# M-6200-D50\* (Set of 8)

- SAE 4130 forged steel
- Used in M-6013-B347 / M-6009-B347 / M-6007-C347
- 5.40" center to center length
- Bushed for full floating .912" wrist pins
- ARP 3/8" 190,000 psi bolts
- Weight-matched end to end to +/-2 grams



# 5.8L/351W "SPORTSMAN" CONNECTING RODS

# M-6200-D351\* (Set of 8)

- SAE 4130 forged steel
- Connecting rods for 351W engines
- Stock 5.956" rod length, bushed for .912" floating pin
- ARP 3/8" 190,000 psi bolts
- Fits stock 351W crank journal
- Weight-matched end to end to +/-2 grams
- Used in M-6013-B392 / M-6009-A392/B392/C58 / M-6007-A392/D392/A351R/D351R/C351R/E351R



# 514 STROKER EAGLE H-BEAM CONNECTING RODS

# M-6200-C514\*

- Used in M-6007-C514/D514 engines and M-6009-C514/D514 short blocks
- 6.605" standard 460 connecting rod center to center distance
- Small end bushed for .990" floating wrist pin
- 7/16" capscrew rod bolts
- SAE 4340 forged steel
- Sold in weight-matched sets of 8
- All surfaces are 100% machined
- Multi-stage heat treat, shot-peened, x-rayed, sonic tested and magnafluxed to ensure quality
- · Bearing cap doweled for alignment



# **347 FORGED PISTONS**

- M-6108-C347\* (Set of 8)
- Forged pistons used in M-6007-C347/D347 crate engine
- 4.000" +.030" overbore
- Valve notches for use with GT40 or Z304 cylinder heads
- Flat top, 3cc notch volume 1.09" compression distance .912" pin diameter
- 1/16", 1/16", 3/16" rings required

# **351W FORGED PISTON**

M-6108-Z351\* (Set of 8)

- Forged piston used in the M-6009-E58 short block
- 4.000" standard bore
- Valve notches for use with GT40 or Z304 cylinder heads
- 17cc dish, 1.785" compression distance, .912" pin
- 1/16", 1/16", 3/16" rings required

# **392 FORGED PISTONS**

M-6108-C392\* (Set of 8)

- Forged piston used in the M-6007-A392E/D392E crate engines
- 4.000" +.030" overbore
- Valve notches for use with GT40 or Z304 cylinder heads
- 15cc dish, 1.615" compression distance, .912" diameter pin
- 1/16", 1/16", 3/16" rings required

#### 514 FORGED PISTONS M-6108-C514\* (Set of 8)

- Forged piston used in M-6007-D514 crate engine
- 4.360" +.030" overbore
- Valve notches for use with M-6049-C429 heads and M-6049-SCJB heads
- 30cc dish, 1.545" compression distance, .990" diameter pin
- 1/16", 1/16", 3/16" rings required



M-6108-C392 shown

# CRANKSHAFTS

# PRODUCTION CAST IRON FINISHED CRANKSHAFT

#### **302 PRODUCTION CRANKSHAFT** M-6303-A50\*\*

 Production 1983-01 302/5.0L crankshaft

Nodular cast iron



- 3.00" stroke 2.248" main journal diameter, 1.138" thrust width •
- 2.123" rod journal diameter, 1.690" rod journal width
- Requires no machining or balancing

# **302 FORD RACING STROKER** CRANKSHAFTS

#### **347 STROKER CRANKSHAFT** FOR 302 STREET/STRIP M-6303-B340\*

• 347 cu. in. displacement



- Cast nodular iron, stronger than an offset ground production cast iron crankshaft
- Crankshaft used in the M-6013-B347 stroker kit .
- 3.40" stroke
- 2.248" main journal diameter (same as stock 5.0L) ٠
- 2.123" rod journal diameter, 1.690" rod journal width
- For use in 1968-00 302 blocks
- Requires custom pistons, rods and balancing

#### **HIGH-STRENGTH FORGED STEEL 3.40"** STROKER CRANKSHAFT M-6303-C340\*

Fits 302 production and Ford Racing cylinder blocks. Stock 2.1232" rod journal diameters. Use with M-6200-D50 "Sportsman" rods (5.40" long) and 1.090" CD pistons in standard 302 block for 347 cu. in.

- **Features:** Lightening holes
  - Rounded CW leading edge, tapered trailing edge
  - Rod and main journals are nitrided and polished
  - Requires custom pistons, rods and balancing

# **351 REPLACEMENT CRANK**

#### M-6303-K351\*\*

- Replacement cast iron crank for 351W engine
- 2.311" rod journal, 3.000"
- main journal, 3.50" stroke Used in M-6007-A351R/C351R/D351R/E351R and M-6009-C58

# ST IDON AND STEEL COANKSUALTS

# 351 FORD RACING STROKER CRANKSHAFTS

# **392 STROKER CRANKSHAFT FOR 351W** M-6303-A385\*

- 392 cu. in. displacement with .030" overbore 351W block
- Low cost nodular cast iron, stronger than an offset ground production cast iron crankshaft
- Crankshaft used in the M-6013-A392 stroker kit
- 3.85" stroke •
- 3.000" main journal diameter (same as stock 351W) •
- 2.311" rod journal diameter, 1.690" rod journal width
- For use in 1971-1997 351W blocks Can be used with stock 351W
- rods and 302 pistons in a 351W block for 392 CID
- Requires balancing

### **392 STROKER CRANKSHAFT FOR 351W** M-6303-B385\*

- 392 cu. in. displacement with .030" overbore 351W block
- Low cost 4340 forged steel crankshaft
- 3.85" stroke
- 3.000" main journal diameter (same as stock 351W)
- 2.311" rod journal diameter, 1.690" rod journal width
- For use in 1971-1997 351W blocks •
- Can be used with stock 351W • rods and 302 pistons in a 351W block for 392 CID
- Requires balancing

# 429/460 CRANKSHAFT

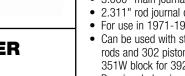
# **514 STROKER CRANKSHAFT** FOR 429/460

# M-6303-A514\*

- 514 cu. in. displacement with standard bore 429/460 block
- Cast nodular iron, stronger than an offset ground production • cast iron crankshaft
- Crankshaft used in the
- M-6013-A514 stroker kit 4.30" stroke
- 3.000" main journal diameter (same as stock 429/460)
  - 2.500" rod journal diameter, 2.000" rod journal width
- For use in 1969-96 460 blocks

- (actual part . may vary from photo)
- · Requires custom pistons, rods and balancing

CAST IRUN	AND STEEL CRAN	NSHAF I S						
PART NUMBER	APPLICATION	MATERIAL	NOTES	MINIMUM Rod Journal Diameter	MAIN Journal Diameter	MINIMUM Rod Journal Width	MAXIMUM Stroke Capability	WEIGHT (LBS.)
M-6303-A50**	Production 302	Nodular Cast Iron	Finished (Stock)	2.123"	2.248"	1.690"	3.00"	38.2
<u>M-6303-B340*</u>	302/302 Ford Racing	Nodular Cast Iron	Finished (Stroker)	2.123"	2.248"	1.690"	3.40"	46
<u>M-6303-A385*</u>	351 Ford Racing "Sportsman"	Nodular Cast Iron	Finished (Stroker)	2.311"	3.000"	1.690"	3.85"	59
<u>M-6303-C340*</u>	302 Race	4340 Steel Forging	Finished	2.123"	2.248"	1.690"	3.40"	45
<u>M-6303-K351*</u>	Production 351W	Nodular Cast Iron	Finished	2.311"	3.000"	1.690"	3.50"	59
<u>M-6303-B385*</u>	351 Ford Racing "Sportsman"	4340 Steel Forging	Finished (Stroker)	2.311"	3.000"	1.690"	3.85"	59
M-6303-A514	429/460	Nodular Cast Iron	Finished	2.500"	3.000"	2.000"	4.30"	77





# **CHECKING CAMSHAFT TIMING**

In order to check cam timing, you will need some specialty tools. You will need a degree wheel, dial indicator with magnetic base, and a heavy wire for a timing pointer. Choose a large diameter wheel as they are easier to read and more durable. Some manufacturers sell kits with a rigid, adjustable pointer that mounts easily to the front the engine. The other option is a heavy wire that is mounted to the block and bent into position.

Start with placing the dial indicator and stand on the right side block deck to measure travel of the CENTER of piston number 1 (passenger side, front). Bring number 1 to TDC (Top Dead Center) by observing when the dial indicator stops moving. Bolt the degree wheel to the front of the crankshaft, and attach the pointer to the front of the block, so that the pointer is positioned at the zero degree reading on the wheel. To find exact TDC, first set the dial indicator to zero at the point of highest piston travel. Next, turn the crankshaft counter clockwise about 90 degrees. Then, slowly rotate the crankshaft clockwise (the normal direction of engine rotation) until the indicator is .030" below the TDC (zero) setting. Note the reading of the degree wheel at this point. Then, continue turning the crankshaft clockwise past

the TDC about 90 degrees. Slowly rotate the crankshaft backwards counter clockwise until the same .030" below TDC is seen on the dial indicator. Again, note the degree wheel reading. Next, rotate the degree wheel so the pointer falls at the AVERAGE of the two observed readings. Lastly, relocate the pointer exactly over the zero reading of the degree wheel, and you will have perfectly dialed in TDC. Redo the procedure to satisfy yourself that the setting is correct, and then proceed to measure cam timing.

Install the number 1 cylinder intake lifter in the proper lifter bore. Position the dial indicator so the tip is on the edge of the lifter or in the center of the lifter. Extensions for the dial indicator may be necessary. Carefully line up the dial indicator so the travel of the indicator is linear to the lifter. Rotate the engine and observe the action of the lifter. Make sure the fully open and fully closed positions of the lifter are within the travel range of the dial indicator. Rotate the crankshaft until the lifter is at the highest point of its travel, and set the dial indicator to zero. Continue rotating the engine clockwise until the lifter starts to travel up again. Slowly continue until the lifter is .030" below the point of maximum travel,

and note the reading of the degree wheel. Start rotating the crank again until the lifter is .030" below the maximum travel on the closing side of the cam lobe. Note the degree wheel reading. The AVERAGE of the two readings taken is the location of maximum intake lift ATDC (After Top Dead Center).

Compare this to the installation recommendation of the cam manufacturer, as it should be relatively close. The timing should be within one degree of the recommended setting. If there is a need to adjust the timing, FRPP has multi-index timing chain sets which have nine keyways to adjust cam timing.

**NOTE:** Many cam manufacturers provide .050" lift cam timing information. To check this, reset the dial indicator to zero with the lifter at zero lift. Then rotate the crank in the clockwise direction until .050" lift is shown on the indicator. Note the intake open degrees. Then proceed clockwise until the intake closing at .050" lift is reached. Compare the readings to the cam card. Together with the maximum lift information, this data will tell you where the cam is degreed. Once corrections are made, measure the cam timing once more to verify the fix was correct.



# ENGINE COMPONENTS

# 5.0L DAMPER KIT

### M-6316-M50\*\*

- New stock replacement damper for most 1981-95 5.0L engines
- 50 oz.-in. balance factor
- Kit includes E4TZ-A damper and FITZ-A timing pointer • • Can be used on M-6007-B50/B51/XB3/XE3 crate motors
- (included with M-6007-F50 and M-6670-A50) • 3.950" overall length

# **CRANKSHAFT DAMPERS**





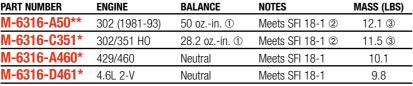


M-6316-A50

M-6316-A460

M-6316-A50/M-6316-C351

MASS (LBS)



**NOTES:** ① Damper has removable weight that allows use as a neutral balance unit for internally balanced crankshafts. 1994-01 Mustang and Explorer requires modification. <sup>(2)</sup> Does not clear early timing chain cover with rear installed seal.

3 3.000" overall length

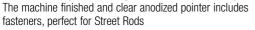
# TIMING POINTER

# M-6023-B351

- Billet aluminum, adjustable timing pointer for 302/351W engines
- The pointer is contoured to fit with minimum clearance to the damper for reduced parallax effect when checking timing
- It is designed for an 11 o'clock TDC location with considerable adjustment range for accurate positioning
- The machine finished and clear anodized pointer includes • fasteners, perfect for Street Rods

# M-6023-C351

- Billet aluminum, adjustable timing pointer for 302/351W engines
- The pointer is contoured to fit with minimum clearance to the • damper for reduced parallax effect when checking timing.
- It is designed for a 10 o'clock TDC location with considerable adjustment range for accurate positioning •



# 429/460 BILLET TIMING ADJUSTER M-6023-A460

- Billet aluminum timing pointer for 429/460/514 engines • The pointer is contoured to fit with minimum clearance to the
- damper for reduced parallax effect when checking timing • Fits 5"-7" diameter crank dampers
- Offers up to 30° of pointer adjustments
- Ball-milled Ford Racing logo
- Machine-finished and clear-anodized pointer includes fasteners, perfect for Street Rods



### 302/351W CRANKSHAFT DAMPER KIT M-6316-K351\*

- New stock replacement damper for most 302/ 351W engines with left-hand water pump inlet
- Fits 1970-1980 302, 1970-97 351W crankshafts with external balance, 28.2 oz.-in. balance factor
- 4-bolt pulley pattern
- 3.950" overall length ٠
- Includes E8TZ-B damper • and F1TZ-A timing pointer



# CRANKSHAFT DAMPERS

### 5.0L "SPORTSMAN" **CRANKSHAFT DAMPER** M-6316-B50\*

- · Nodular iron crankshaft damper for late model 5.0L sportsman oval track racing
- Low cost performance damper
- Fits 1981-01 5.0L crankshafts with external balance, 50 oz.-in. balance factor
- 3-4 bolt pullev pattern
- 3.000" overall length

#### 302/351W "SPORTSMAN" **CRANKSHAFT DAMPER** M-6316-J351\*\*

- · Nodular iron crankshaft damper for late model sportsman oval track racing
- Low cost performance damper
- Fits 1970-80 302, 1970-97 351W crankshafts with external balance. 28.2 oz./in. balance factor



- 3-4 bolt pulley pattern
- 3.000" overall length

### Did you know...

1968-80 302 engines were built with a 28-ounce imbalance factor.

1981-01 302 engines were built with a 50-ounce imbalance factor.

1969-97 351W engines were built with a 28-ounce imbalance factor.

1970-74 351C engines were built

with a 28-ounce imbalance factor.

NOTE: Severe engine damage will result if you use the wrong flywheel or damper on your engine.







# SERPENTINE BELT HORSEPOWER PULLEY KITS – MUSTANG 5.0L

M-8509-A50 1987-93 5.0L Mustang with serpentine drive belt, A/C and power steering (E.O. #D-308)

M-8509-A51\* 1994-95 Mustang with serpentine belt drive, A/C and power steering. M-8509-A50\* Truck 5.0L/302–1987-96 and 5.8L/351–1988-96

Contains steel crankshaft, water pump and alternator pulleys, plus bolts and installation instructions. Reduces accessory drive RPM by: (water pump-14%) and (alternator -22%)...and significantly improves performance! Pulleys are manufactured on state-of-the-art CNC machines and have an awesome blue finish over zinc plating. Pulleys use production serpentine belt. **WARNING:** Engine cooling will be reduced.

### **1965-69 MUSTANG** BILLET SINGLE **GROOVE PULLEY SET** M-8509-CM\*

- Fits 1965-69 Mustang with 289/302/351W
- 3-bolt crank pulley
- Single groove crank pulley
- Single groove water pump pulley





- Fits 1970-78 Mustang with 302/351W/351C
- 4-bolt crank pulley
- Single groove crank pulley
- Single groove water pump pulley







Serpentine Belt Horsepower Pulley Kit M-8509-A50 shown

# 1970-78 MUSTANG BILLET DUAL **GROOVE PULLEY SET** M-8509-EM\*

- Fits 1970-78 Mustang with 289/302/351W/351C
- 4-bolt crank pulley



# **CRANKSHAFT PULLEY SPACERS**

Use these crankshaft pulley spacers with Ford Racing M-6316-C351 crank damper to achieve proper belt alignment on past model 5.0L and 5.8L Windsor engines.

PART NUMBER	ENGINE	YEAR	<b>CRANK PULLEY BOLT PATTERN</b>	SPACER THICKNESS
M-8510-A351	351W	1979 and earlier	4	0.350"
M-8510-B351	302 351W	1980 and later	4	0.950" 0.950"
M-8510-C351	302 ①	1980 and later	4	0.950
	351W ①	All	4	0.875"
	351 Ford Raci	ng ①	4	0.875"



nkshaft Pulley Spacer 8510-A351

#### INSTALLATION NOTES

① With 0.917" Ford Racing crank sprocket.

NOTE:

1979 and earlier 351W with 0.917" Ford Racing crank sprocket can use spacer M-8510-A351 if 0.070" is machined from the rear of the damper hub. Early 3-bolt crank pulleys generally bolt directly to the damper (damper is drilled for 3- and 4-bolt patterns). However, sheave alignment should be checked and the pulley shimmed as necessary to correct any misalignment.

# **CRANKSHAFT DAMPER SPACER**

APPLICATION

351C

M-6359-C460\*

PART NUMBER

M-19009-A341\*

Crankshaft damper spacer for M-6303-B600 crankshaft with M-6316-A460 crankshaft damper. Spacer is 6061-T6 aluminum hard anodized black. 1.375" long.

**CRANKSHAFT SPACER** 

DESCRIPTION

# 460/514 CRANKSHAFT DAMPER SPACER M-6359-D460

- Spacer with counterweight for 1979-97 external balanced 460 engines
- Used on Ford Racing crate engines

Required with 351 Ford Racing crankshaft, when used in production 351C engine.

Same as discontinued production service part D9TZ-6359-A



Crankshaft Spacer M-19009-A341

COMPONENTS

# ENGINE COMPONENTS

# **TIMING CHAIN & SPROCKET SETS**

PART NUMBER	APPLICATION	DESCRIPTION	and the state of t
M-6268-A302*	289/302/351W/351	Full roller chain with 9-position multi-index crank sprocket. Ford Racing includes thrust plate. Cam sprocket is made from cast iron.	
M-6268-B302*	289/302/351W/ 351 Ford Racing	Same as M-6268-A302, except cam sprocket is made from steel for maximum competition engines. Use with hardened thrust plate M-6269-A351.	CHILLING ST
M-6268-C302*	289/302/351W/ 35Ford Racing	Replacement chain for B302 and A302 sets.	"Full Roller" Timing Chain and Sprocket Set
M-6268-A351*	351C/351M/400	Full roller chain with 9-position multi-index crank sprocket.	
M-6268-A390*	390/427/428	Does not fit 1961-63 camshafts. Full roller chain with 9-posi	tion multi-index crank sprocket.
M-6268-B429*	429/429 BOSS/460	Cast iron cam sprocket. Full roller chain with 9-position multi	-index crank sprocket.
M-6268-A460*	429/429 BOSS/460	Steel cam sprocket for maximum competition engines. Full ro multi-index crank sprocket.	ller chain with 9-position
M-6287-B302*	289/302/351W/ 351Ford Racing	Eccentric for M-6268-B302 and A302 kits—Mechanical fuel	pump drive, with 3/8" bolt.
M-6287-C302*	289/302/351W/ 351Ford Racing	Eccentric for M-6268-B302 and A302 kits—Mechanical fuel	pump drive, with 7/16" bolt.

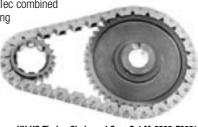
# **CAMSHAFT THRUST PLATE**

PART NUMBER	APPLICATION	DESCRIPTION	$\cap \cap \circ$
M-6269-A351	302/351 Ford Racing	Steel replacement for production cast iron thrust plate for severe service. Use with steel timing chain sprocket.	0000
M-6269-A460	429/460	Low friction roller bearing camshaft thrust plate. Requires machining of camshaft sprocket thrust surface.	M-6269-A460 M-6269 A351
M-6269-B460*	429/460	Stock replacement for obsolete C8SZ-6269-A thrust plate	

# **HY-VO® TIMING CHAIN AND GEAR SET**

M-6268-F302 302/351W Ford Racing Roush Industries, Borg-Warner Automotive and Morse Tec combined efforts to develop this new generation of a multi-indexing timing chain set. Now with improved tolerances for reduced backlash, the chain is twice as strong as a standard roller chain and three times as strong as a timing belt. It gained 2 horsepower @ 7000 RPM. Use with hardened thrust plate M-6269-A351.

M-6268-G302\* Replacement Hy-Vo® Timing Chain



HY-VO Timing Chain and Gear Set M-6268-F302\*



# **2.3L 4-CYLINDER OHC CAMSHAFTS**

PART NUMBER	ENGINE	TYPE/ Description	USAGE RECOMMENDATIONS AND PERFORMANCE CHARACTERISTICS	DURA Intake	TION Exhaust	VALVE INTAKE	E LIFT EXHAUST
M-6250-A234*	2.3L OHC	Hydraulic Flat Tappet	Good to fair idle with excellent mid-range horsepower for turbo and naturally aspirated usage	272°	280°	0.420"	0.420"
M-6250-A237* () (2) WHILE LAST SUPPLIES LAST United quantity	2.3L OHC	Hydraulic Roller Follower Camshaft only from M-6252-A230 camshaft kit	Good to fair idle with excellent mid-range horsepower for turbo and naturally aspirated usage	274°	282°	0.420"	0.420"

Z-6564-A 2 NO PROVISIONS TO CALL POS

# CAMSHAFTS AND LIFTERS



# **SMALL BLOCK V-8 HYDRAULIC ROLLER TAPPET CAMSHAFTS**

(See pages 223-226 for installation tips.)

NOTE: Roller and flat tappet camshafts are NOT interchangeable. Unless otherwise shown, 302 usage includes 302 BOSS/302 Ford Racing. 351C usage includes 351C BOSS/351C Ford Racing. 351W includes 351 Ford Racing.



Roller Tappet Camshaft

			USAGE RECOMMENDATIONS AND	PEAK	( RPM	DURA	FION (6)	VAL	/E LIFT
PART NUMBER	ENGINE	DESCRIPTION	PERFORMANCE CHARACTERISTICS ③	TORQUE	BHP.	INT.	EXH.	INT.	EXH.
M-6250-E303	1985-95 302 with Roller	Hydraulic Roller	Good idle quality. Excellent low- and mid-range power. Power through 6000 RPM.	2500	5500	282°	282°	0.498"	0.498"
3 50 States Street Legal	Tappet Cam	Tappet	Emissions legal with 5-speed manual trans			220°	220°		
E.O. #D-225-16	12		(E.O. #D-225-16). Works well with automatic transmission. Great for superchargers.						
M-6250-F303*	1985-95 302 with Roller	Hydraulic Roller	Slightly rougher idle than E303. More mid-range and top-end power than E303.	2800	6000	288°	288°	0.512"	0.512"
(3)(4) 	Tappet Cam 12	Tappet	Great for superchargers. 5-speed manual transmission recommended.			226°	226°		
M-6250-B303*	1985-95 302 with Roller	Hydraulic Roller	Fair idle quality. Good low-end torque. Significant top-end horsepower above	3300	5100	284°	284°	0.480"	0.480"
	Tappet Cam 12	Tappet	4000 RPM. 5-speed manual transmission recommended.			224°	224°		
M-6250-X303*	1985-95 302 with Roller	Hydraulic Roller	Ultra high-performance camshaft.	3500	6200	286°	286°	0.542"	0.542"
34	Tappet Cam 1@	Tappet	Fair idle quality. Big time torque and horsepower maker—up to 6200 RPM. 5-speed manual transmission recommended.			224°	224°		
M-6250-Z303*	1985-95 302 with Roller	Hydraulic Roller	"CamZilla" the biggest and baddest camshaft Ford Racing offers. Fair idle quality. Big time	3500	6500	290°	290°	0.552"	0.552"
	Tappet Cam 12	Tappet	torque and horsepower maker—up to 6500 RPM. 5-speed manual transmission recommended.			228°	228°		

NOTES: ① On EFI engines, performance camshafts work only with mass air induction systems. Will not work with Explorer EEC-V EFI. See page 114. ② Also fits 1994-95 351W with factory roller cam when used with mass air EFI. ③ Stock 5.0L HO cam advertised specs are 266°/266° duration, 0.444"/0.444" lift. ④ May require piston modification for piston-to-valve clearance. Valve clearance should be checked. ④ Drawing and the clear 240 arise and any require piston and the clearance and the provide sector and here the clearance and the provide sector and the clearance and the provide sector and the sector and the provide sector and the provid

⑤ Requires valve spring pressure 120 lbs. close 340 psi open and may require longer pushrods.

6 Duration figures in shaded area at 0.050" lobe lift.



### **BIG BLOCK V-8 CAMSHAFT 385 SERIES** (429/460)

(See pages 223-226 for installation tips.)

NOTE: On EFI engines, performance camshafts work only with mass air induction systems. See page 114.

			USAGE RECOMMENDATIONS AND	PEAK	( RPM	DURA	rion 2	VAL	/E LIFT
PART NUMBER	ENGINE	DESCRIPTION	PERFORMANCE CHARACTERISTICS ①	TORQUE	BHP.	INT.	EXH.	INT.	EXH.
M-6250-A443*	429/460 Wedge	Hydraulic Flat	Substantial horsepower increase at high RPM. Production cylinder heads require machining	3000	5000	300°	310°	0.562"	0.588"
	weuge	Tappet	of valve spring seats to prevent "coil bind" with stock length valves.			234°	244°		
M-6250-A460*	429/460 Wedge	Hydraulic Flat	Increased horsepower and torque. Good all around performance.	3250	4750	288°	292°	0.493"	0.502"
	weuge	Tappet	Widely used in marine applications.			216°	220°		
M-6250-C460*	429/460 Wedge	Hydraulic Flat	Excellent torque and horsepower. Same as used in our 460 crate motor	4750	6000	310°	320°	.588"	.614"
	weage	Tappet	M-6007-C460.			244°	254°		
M-6250-A514*	514	Mechanical Roller	Includes roller tappets used in M-6007-A514/B514/C514/D514	4750	6250	304°	308°	.647"	.647"
		וטווטו	W-0007-A314/0314/0314/0314			254°	258°		

NOTES: ① Compared to standard production camshaft with production cylinder heads and intake manifold.

② Duration figures in shaded area at 0.050" lobe lift.

Not compatible with roller cam bearings.

# CAMSHAFTS AND LIFTERS

# SMALL BLOCK V-8 FLAT TAPPET CAMSHAFTS (289/302/351/400)

(See pages 223-226 for installation tips.)

**NOTE:** Roller and flat tappet camshafts are NOT interchangeable. Unless otherwise shown, 302 usage includes 302 BOSS/302 Ford Racing. 351C usage includes 351C BOSS/351C Ford Racing. 351W includes 351 Ford Racing blocks.

			USAGE RECOMMENDATIONS AND	PEAK I	RPM	DURA	FION ④	VALV	e lift
PART NUMBER	ENGINE	DESCRIPTION	PERFORMANCE CHARACTERISTICS 3	TORQUE	BHP.	INT.	EXH.	INT.	EXH.
<b>M-6250-A311*</b>	289/302 Flat Tappet	Hydraulic	High torque below 4000 RPM. Good for low RPM applications such as towing, boats, etc.	3500	4750	280°	290°	0.448"	0.472"
•	Παι Ταρροι					204°	214°		
<b>M-6250-A312*</b>	289/302 Flat Tappet	Hydraulic	Increased horsepower and torque at all RPM. Good all around performance.	3500	5000	290°	300°	0.472"	0.496"
U	παι ταρρει		dood an around performance.			214°	224°		
M-6250-A332*	351W Flat Tappet	Hydraulic	Increased horsepower and torque at all RPM. Good all around performance	3000	4500	290°	300°	0.472"	0.496"
2	Γιαι ταρρει		doou all alound performance			214°	224°		
M-6250-A351*	351W Flat Tappet	Hydraulic	351 HO Ford Racing engine.	4500	5750	296°	306°	0.520"	0.538"
e	παι ταρρει					236°	246°		

**NOTES:** ① Designed for firing order: 1-5-4-2-6-3-7-8

② Designed for firing order: 1-3-7-2-6-5-4-8

③ Compared to standard production camshaft with production cylinder heads and intake manifold, except as noted.

④ Duration figures in shaded area at 0.050" lobe lift.

# VALVE TAPPETS (SOLD IN ENGINE SETS OF 16)

PART NUMBER	APPLICATION	TYPE/DESCRIPTION
M-6500-C302* Replaces A302	289/302/351/429/460	Mechanical (96.5 grams).
M-6500-B303** Replaces A303	289/302/351/429/460	Hydraulic. OEM replacement.
M-6500-R302**	302 (5.0L) EFI Small block	Hydraulic. Roller tappet OEM replacement.



Flat Tappet

Hydraulic Roller Tappet M-6500-R302 shown

# CAMSHAFT AND LIFTER PRELUBE

### M-19579-A12

- Highest-quality cam lube for camshaft replacement and engine assembly
- Recommended for use with all Ford Racing flat tappet camshafts
- Distributed in cases of 12
- Single bottles may be available from your Ford Racing distributor part number CM-19579-A1



# EARLY BLOCK HYDRAULIC ROLLER LIFTER SET

**M-6500-S58\*** Sold in engine sets Use to install hydraulic roller lifter camshaft in a "non-roller" block. Fits 289/302/351W/351C.

NOTE: May require custom pushrods and minor clearancing.



# CAMSHAFT SPECIFICATIONS



# FORD RACING CAMSHAFTS

The Ford Racing Camshaft Specification chart describes individual cams and cam kits currently available from Ford Racing. Refer to page 223 for performance characteristics and usage guidelines. See page 92 for valve springs.

				S	TION	CIFICA	T SPE	ISHAF	IG CAN	ACIN	ORD R	F		
E CENTER	LOBE (		LII (INCI	ATION Ae)	DUR/ (S/		EXHAUST ( (0.0	VENTS 50')	INTAKE E (0.0	LIFTER LASH	LIFTER	ROCKER		
EXH.	INT.	VALVE	LOBE	EXH.	INT.	CLOSE	OPEN	CLOSE	OPEN	(IN.)	TYPE	RATIO	ENGINE	PART NUMBER
° 117°	107°	.448	.280 I	290°	280°	10° BTC	44° BBC	29° ABC	5° ATC	-	Hydraulic	1.60	289/302	M-6250-A311*
		.472 E	.295 E	214°	204°									
° 117°	107°	.4721	.295	300°	290°	5° BTC	49° BBC	34° ABC	0° BTC	-	Hydraulic	1.60	289/302	M-6250-A312*
		.496 E	.310 E	224°	214°									
° 117°	107°	.480 I	.300 I	284°	284°	5° BTC	49° BBC	39° ABC	5° BTC	-	Hydraulic	1.60	1985 and	M-6250-B303*
	L	.480 E	.300 E	224°	224°						Roller		Later 302 Roller Cam	
° 110°	110°	.498	.311	282°	282°	0° BTC	40° BBC	40° ABC	0° BTC	-	Hydraulic	1.60	1985 and	M-6250-E303
		.498 E	.311 E	220°	220°						Roller		Later 302 Roller Cam	
° 119°	109°	.5121	.320 I	288°	288°	6° BTC	52° BBC	42° ABC	4° BTC	-	Hydraulic	1.60	302/351	M-6250-F303*
	L	.512 E	.320 E	226°	226°						Roller			
° 117°	107°	.542 I .542 E	.339 I .339 E	286° 224°	286° 224°	5° BTC	49° BBC	39° ABC	5° BTC	-	Hydraulic Roller	1.60	1985 and Later 302	M-6250-X303*
													Roller Cam	
° 117°	107°	.552 I	.345 I	290°	290°	3° ATC	51° BBC	41° ABC	7° BTC	-	Hydraulic	1.60	1985 and	M-6250-Z303*
		.552 E	.345 E	228°	228°						Roller		Later 302 Roller Cam	
° 117°	107°	.4721	.295 I	300°	290°	5° BTC	49° BBC	34° ABC	0° BTC	-	Hydraulic	1.60	351W	M-6250-A332*
		.496 E	.310 E	224°	214°									
° 119°	109°	.520 I	.325 I	306°	296°	4° ATC	62° BBC	47° ABC	9° BTC	-	Hydraulic	1.60	351W	M-6250-A351*
		.538 E	.336 E	246°	236°									
° 117°	107°	.562 I	.325 I	310°	300°	5° ATC	59° BBC	44° ABC	10° BTC	-	Hydraulic	1.73	429/460	M-6250-A443*
		.588 E	.340 E	244°	234°									
° 120°	109°	.493	.285 I	292°	288°	10° BTC	49° BBC	37° ABC	1° ATC	-	Hydraulic	1.73	429/460	M-6250-A460*
		.502 E	.290 E	220°	216°									
° 114°	106°	.588 I	.340 I	320°	310°	13° ATC	61° BBC	48° ABC	16° BTC	-	Hydraulic	1.73	429/460	M-6250-C460*
		.614 E	.354 E	254°	244°									
° 117°	107°	.647I	.374I	308°	304°	12° ATC	66° BBC	54° ABC	20° BTC	Ι	Mechanical Roller	1.73	514	M-6250-A514*
9°	109	.588 E .493 I .502 E .588 I .614 E	.340 E .285 I .290 E .340 I .354 E	244° 292° 220° 320° 254°	234° 288° 216° 310° 244°	10° BTC 13° ATC	49° BBC 61° BBC	37° ABC 48° ABC	1° ATC 16° BTC	-	Hydraulic Hydraulic	1.73 1.73	429/460	M-6250-A460* M-6250-C460* M-6250-A514*

**NOTE:** Camshaft intake and exhaust valve events are measured at 0.050" tappet lift. The duration figures in the shaded area are taken at 0.050" tappet lift. This is useful to check the cam with a degree wheel during installation. The solid color is advertised duration. For comparison purposes, add intake and exhaust lobe centers and divide by 2 to calculate "camshaft centerline" specification for Ford Racing camshafts. Refer to appropriate engine section for additional details.

# Did you know...

351W blocks that are roller cam compatible have the casting number F4TE. It is located near the starter. If your block is not roller ready, conversion lifter part number M-6500-S58 will allow you to use a hydraulic roller cam in a non-roller 289/302/351W block.

# Did you know...

The first year of a hydraulic roller cam in a 302 was 1985.

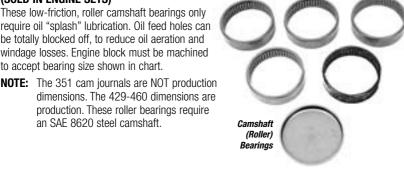


See page 79 for "Checking Camshaft Timing" article.

# TIMING SPROCKETS AND BEARINGS

# **CAMSHAFT BEARINGS – ROLLER** (SOLD IN ENGINE SETS)

These low-friction, roller camshaft bearings only require oil "splash" lubrication. Oil feed holes can be totally blocked off, to reduce oil aeration and windage losses. Engine block must be machined to accept bearing size shown in chart.



production. These roller bearings require an SAE 8620 steel camshaft.	Camshaft (Roller) Bearings	l

dimensions. The 429-460 dimensions are

PART NUMBER	APPLICATION	OD DESCRIPTION	ID DESCRIPTION	LENGTH
M-6261-C351*	302/351W 351 Ford Racing	2.283"	2.051"	0.625"
M-6261-A460*	429/460 Wedge	2.500"	2.125"	0.625"
<b>M-6261-D351*</b> ①	351 Ford	(1-4) 2.48" (5) 2.28"	(1-4) 2.165" (5) 1.969"	0.787"

**NOTES:** ① Requires special camshaft retainer plate sold separately.

# 2.0L ZETEC ADJUSTABLE CAMSHAFT GEAR

M-6256-Z20\* Fits ZX2, ZX3 and Escape (one per pack) 2.0L Zetec adjustable camshaft gear provides +/-10 degrees change in camshaft timing. Lightweight aluminum design. Hard anodized outer half for long life. Blue anodized inner half with Ford logo. Stainless steel bolts and washers included. Bolt on installation when used on intake and/or exhaust cam of Focus ZX3 and Escape 2.0L Zetec engine and intake cam of Escort ZX2 2.0L Zetec engine. Requires use of cam gear adapter when used on exhaust cam of Escort ZX2 2.0L Zetec engine. A must for any 2.0L camshaft work.



# FORMULA FORD SPORTS 2000 2.0L SCCA APPROVED SERVICE PARTS

M-6102-B200\* M-6200-C200\* M-6250-A200\*

J.E. Pistons (set of 4) Oliver Connecting Rods (matched set of 4) Crane Camshaft (must be deburred and shot-peened)



# CAMSHAFT BEARINGS

M-6261-R351\* 351 Ford Racing Blocks Common outer and inner diameter replacement cam bearings for use in M-6010-R302/S302/R351/R352/ S351/V351/W351/R451/R452/R453. Use with custom ground common OD camshaft.

## M-6261-J351\*

Common outer diameter service replacement cam bearings for Ford Racing 302 and 351 aluminum cylinder blocks and M-6010-R302/S302/R351/R352/ S351/V351/W351/R451/R452/R453 cast iron blocks. Use with standard camshaft.



### **"SPORTSMAN" 351 SHORT TRACK BEARING AND** SPACER KIT

M-6333-A351\* Main Bearings – (Standard)

- M-6339-A351\* Main Bearings Spacer Kit • Use with 2.750" crank journals (M-6303-D351/ E351 crankshafts) in M-6010-A351/B351 or production block
- 351W thrust width
- Requires align hone after spacers are installed



# **Need Ford technical** information on **Performance Parts?**

**Call the Tech "Hot Line"** (586) 468-1356 or visit our website at www.fordracingparts.com



# HEADERS



# THE BEST MUSTANG AND TRUCK HI-FLOW SHORTY HEADERS

AVAILABLE IN STAINLESS STEEL OR CERAMIC COATED STAINLESS STEEL





2003 exhaust flange

M-9430-E462 shown

PART NUME	BER	ТҮРЕ	APPLICATION
M-9430-	P50*	Stainless Steel	1986-93 Mustang 5.0L 0356
M-9430-	P51*	Ceramic Coated	1986-93 Mustang 5.0L ①②③⑤⑦
M-9430-	A58*	Stainless Steel	1986-93 Mustang with 351W 13
M-9430-	N95*	Stainless Steel	1994-95 Mustang 5.0L 3
M-9430-	<b>C95</b> *	Ceramic Coated	1994-95 Mustang 5.0L @3
M-9430-	E462*	Stainless Steel	1996-04 Mustang GT 4.6L SOHC
M-9430-	E463*	Ceramic Coated	1996-04 Mustang GT 4.6L SOHC 2
M-9430-	E464*	Stainless Steel	1996-02 4.6L Cobra DOHC ⑧
M-9430-	E465*	Ceramic Coated	1996-02 4.6L Cobra DOHC 28
M-9430-	<b>T50</b> *	Stainless Steel	1990-95 F-Series Truck and E-Series Van with 5.0L engine ③
M-9430-	T58*	Stainless Steel	1990-96 F-Series Truck and E-Series Van with 5.8L engine ③
M-9430-	E52*	Stainless Steel	1996-98 5.0L Explorer
M-9430-	F542*	Stainless Steel	1999-03 F-150 & 2000-04 F-250 5.4L 2V
M-9430-	F542C*	Ceramic Coated	1999-03 F-150 & 2000-04 F-250 5.4L 2V 2
M-9430-	F543*	Stainless Steel	2004-05 F-150 & 2005 F-250 5.4L 3V
M-9430-	F543C*	Ceramic Coated	2004-05 F-150 & 2005 F-250 5.4L 3V @
M-9430-	SD682*	Stainless Steel	2004 F-250 6.8L V10 2V
M-9430-	SD682C*	Ceramic Coated	2004 F-250 6.8L V10 2V 2
M-9430-	SD683*	Stainless Steel	2005 F-250 6.8L V10 3V
M-9430-	SD683C*	Ceramic Coated	2005 F-250 6.8L V10 3V 2
2	Also fits early "Fox" vehicles with modification Jet-Hot <sup>®</sup> Lifetir Warranty Production and all GT-40 head	new angle ons. GT-40 "P" ne Fits 1986- stock or af Also fits 19	eader that fits the d spark plug 5.0L cylinder head.(6) M-9430-P50 replaces93 Mustangs with ftermarket H-pipe.(7) M-9430-P51 replaces979-85 Mustangs Fox chassis with(8) 4.6L does not fit

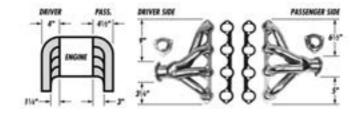
# STREET ROD HEADERS 289/302/351W

④ 1.5" diameter tubes

**M-9430-V302\*** Ceramic Coated These compact street rod headers are ideal for installations where space is at a premium. Primary tube diameter is 1-5/8". Collector diameter is 2-1/2".

minor modification.

NOTE: Requires Sealed Power motor mount part numbers 270-2221LH and 270-2220 RH. (Now fits GT-40 "P" heads.)



## FEATURES:

#### STAINLESS STEEL

409 stainless is a blend of stainless and mild steel. This type of stainless is used to make production catalytic converter assemblies that have a 100,000mile durability requirement. 409 stainless has excellent forming characteristics and is rust through resistant. 409 stainless will develop a light surface rust.

- 409 stainless steel tubes
- 1-5/8" diameter tubes
- Machined flange
- Bolts to stock exhaust pipes
- Includes gaskets, bolts and studs
- Designed by Ford Racing engineers

#### CERAMIC COATED STAINLESS STEEL

- Identical to stainless steel header, but with Jet-Hot<sup>®</sup> ceramic finish
- · Stain and rust resistant
- · Super-premium quality
- Lifetime Warranty
- Finest short-tube headers you can buy

# **HEADER LIMITED WARRANTY**

This limited warranty becomes void if the product shows evidence of bending or mutilating of parts or burnout resulting from improper tuning. Warranty covers rust through only and does not cover cosmetic rust or discoloration of material. This limited warranty shall be limited to the repair, adjustment or replacement of defective parts only. Does not cover any labor claims. Ask your dealer for a copy of this "Jet Hot" limited warranty.

# **REPLACEMENT HEADER GASKETS**

M-9448-A462\* Fits 4.6L SOHC M-9448-A464\* Fits 4.6L DOHC M-9448-B302\*\* Fits 5.0L/302



#### "STAGE 8" LOCKING HEADER BOLT SYSTEMS

These kits fit most V-8 and many other engines. Includes 16 bolts and locking hardware.



PART NUMBER	SIZE	FITS
M-9432-A50	.375-16 x .75"①	Most Headers
M-9432-A51	.375-16 x 1"①	Ford Racing Hi-Flow Shorty Headers
M-9432-A54	8mm- 1.25 x 22mm	4.6L/5.4L modular V-8 engines
• 100% roliable	zoro failuros in mor	, than 6 000 000

 100% reliable, zero failures in more than 6,000,000 applications. Header fasteners absolutely, positively will not back out. Eliminates need to monitor and tighten bolts regularly

- Grade 8 aircraft quality bolts, made in USA. Duplex nickel plated
- Manufacturer's Lifetime Warranty
- NOTE: 1) Will not fit 4.6L/5.4L modular V-8

# EXHAUST SYSTEMS





# **EXHAUST SYSTEMS**

Ford Racing Performance Parts has released a series of high-performance exhaust systems for Mustang applications. All components are made from 409 stainless steel and are produced by Arvin-Meritor Industries to Ford Racing specifications. 409 stainless is a blend of stainless and mild steel. This type of stainless is used to make production catalytic converter assemblies which have a 100,000-mile durability requirement. 409 stainless has excellent forming characteristics and is rust through resistant. 409 stainless will develop a light surface rust. These kits are attractively priced, high-quality, guaranteed to fit and produce world-class power and low restriction.

### M-5230-M51\*

A low cost performance exhaust system for your 1986-93 5.0L LX, 1994-95 5.0L, 1996-97 4.6L GT and 1996-97 Cobra. This exhaust system is made

from primarily 2.5" diameter tubing with high-performance mellow tone mufflers, and terminate with 3.0" polished tips. A great performing low cost system.

### M-5230-M52\*

Same as M-5230-M51 except fits 1998-01 4.6L GT.

#### M-5230-M55\*

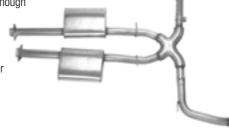
An ultra-low back pressure exhaust system for your 1999-01 Cobra. Primarily 3" tailpipes, this system has low back pressure, but will produce significant noise and may be objectionable in some applications.

# M-5230-M58\*

The ultimate 1999-04 Cobra 4.6L DOHC exhaust system. Functionally identical to the system used on the Ford Racing Mustang. This is a complete cat-back system using 2.5" diameter tubing, world-class dual mode mufflers, and down stream "X" pipe. The dual mode mufflers utilize two flow paths and a pressure-sensitive internal valve to minimize back pressure without producing excessive noise. This combination

yields mellow tones in normal daily driving, while producing unrivaled performance. If it's good enough

for the Ford Racing Mustang, it's probably good for your application.



# M-5230-M61\*

Finally, a quasi-dual exhaust system for your 1998-01 3.8L V-6. This primarily 2.5" system will significantly improve performance while maintaining acceptable sound levels.

- May not fit all 1998
- Will not fit convertible

# POLISHED STAINLESS STEEL EXHAUST TIPS

- M-5230-T2\*
- Megs<sup>®</sup> 304 stainless steel exhaust tip
- Weld on design
- Exhaust tube connection I.D. 2.25"
- Main tube OD 3.50"
- Overall length 26"
- Sold separately



# DUAL MODE MUFFLERS M-5230-BP2\*

Finally, you can purchase the dual mode mufflers found in our premium M-5230-M58 Mustang Cobra exhaust kit separately. The dual mode design utilizes two flow paths and a pressure-sensitive internal valve to minimize back pressure without producing excessive noise. These mufflers really work! Great for street rods, Mustangs, or your custom project vehicle. These mufflers are designed to be welded to your 2.5" pipe. The kit contains 1 LH and 1 RH muffler.



# STUDS, SHIMS AND STUD GIRDLES

# VALVE ROCKER ARM STUD (SOLD IN PKG. OF 16)

Requires head to be tapped for threaded rocker arm stud. See page 226 for instructions.

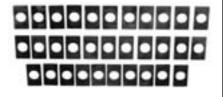
PART NUMBER	APPLICATION	DESCRIPTION	Contraction of the second seco
M-6527-C311	302 BOSS/351C BOSS, 429/460 Wedge	7/16" dia. shoulder with 7/16" dia. threads. $\odot$ Mounting length is 1.850". For use with stud girdles.	Rocker Arm Stud
M-6527-D311	289/302/351W	3/8" dia. shoulder with 7/16" dia. threads. ${\rm \tiny (f)}$ Mounting length is 1.850".	M-6527-C311 shown

NOTE: 1 Mounting length is from face of head to top of the stud.

# **VALVE ROCKER ARM** PEDESTAL SHIM KIT

M-6529-A302\* All Small Block and 429/460 Wedge

Use with bolt-on roller rocker arms M-6564-A50, M-6564-B351, -C351, and -E351 to obtain correct lifter pre-load. Shim kit includes 16 thin and 16 thick shims, which can be used to reduce lifter pre-load by 0.030" (thin shim), 0.060" (thick shim), or 0.090" (thin plus thick shim).



### **ROCKER ARM STUD GIRDLE** M-6569-C351

Steel Girdle Kit locks all rocker arm studs together to provide more stable valve train at high RPM. Use with M-6049-N351/N352 "Sportsman" head.



#### **ROCKER CHANNEL KIT M-6588-A50\*\*** Engine Set

- Fits 5.0L/5.8L production heads and GT-40 heads
- For production stamped steel and Ford Racing bolt-on roller rockers.
- Ties two rocker arms together for proper alignment



### **ROLLER CAM CONVERSION KIT** M-6253-A50\*\*

- This kit is designed to help engine builders assemble our short blocks to complete engines
- Kit includes 8 hydraulic roller lifter powdered metal tie bars, 1 retainer plate and 2 bolts
- Fits 1985-01 302, 1994-97 351W, 1996-04 M-6010-A4/A58/R302/A351/B351/C351/R351/R352/ S351/V351/W351 race blocks
- For production roller cam blocks, non-roller cam blocks use M-6500-S58 lifters

# VALVE SPRING SEAT (SOLD IN PKG. OF 16)

For use with aluminum cylinder heads to prevent damage to valve spring seat area.

				SEAT DESCRIPTION	
PART NUMBER CYLINDER HEA	D USAGE SPRING O.D.	. O.D. CUP	I.D. CUP	MATERIAL	THICKNESS
M-6536-E351 M-6049-B42	29 1.460"	1.590"	0.568"	Machined Steel	0.062"
M-6536-SCJ M-6049-B42	29 1.550"	1.680"	0.577"	Machined Steel	0.062"



# VALVE SPRING RETAINERS (SOLD IN PKG. OF 16)

See pages 224-225 for valve spring and retainer information.

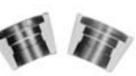
	APPLICATION			SPRING	RETAINER	STEP DIMENSIONS	
PART NUMBER	VALVE	SPRING	DESCRIPTION	0.D.	0.D.	<b>1ST STEP</b>	2ND STEP
M-6514-A50	Single lock groove. 11/32" dia. stem.	M-6513-A50/B351 M-6049-N351 and all GT-40 1©	7° Machined Steel	1.500"	1.375"	1.060"	0.675"
M-6514-B50 ①	Single lock groove. 11/32" dia. stem.	M-6513-A50 @	7° Machined Steel	1.500"	1.375"	1.060"	0.675"



NOTES: 10 Use of M-6514-B50 retainers on 1979-95 production valves of 5.0L (302) HO and production GT-40 engines eliminates exhaust rotators and will result in 1.800" intake and exhaust spring "installed height." @ With Ford Racing stainless steel valves.

# VALVE SPRING KEEPERS (SOLD IN ENGINE SET PKG. OF 16)

PART NUMBER	TYPE AND USAGE RECOMMENDATIONS	
M-6518-B351	Machined and hardened. 7° design with single lock groove. For all-out competition and use with titanium valves.	1



# PUSH RODS AND GUIDE PLATES



# VALVE PUSH RODS 289 THRU 460

(SOLD IN PKG. OF 16)

PART NUMBER	YEAR	ENGINE	DIAMETER	GAUGE LENGTH	ТҮРЕ
M-6565-C347*	_	302 3	.312"	7.300"	"Ball and Ball"
M-6565-L302**	19851/2-96	5.0L hydraulic roller tappet stamped steel and most roller rockers $\ensuremath{}$	.312"	6.272"	"Ball and Ball"
M-6565-L58**	1994-97	5.8L hydraulic roller tappet stamped steel and most roller rockers	.312"	7.567"	"Ball and Ball"
M-6565-L312**	1962-69	221/260/289/302 cast iron "non-rail" rockers $\textcircled{1}$	.312"	6.804"	"Ball and Ball"
M-6565-L332**	1969-78	351W cast iron "rail" rocker arms ${\rm \textcircled{O}}$	.312"	8.152"	"Ball and Ball"
M-6565-M332**	1978-93	351W stamped steel and most roller rockers ${\rm (}\!$	.312"	8.182"	"Ball and Ball"
N-6565-M342**	1970-73	351C and Cobra Jet ${old O}$	.312"	8.408"	"Ball and Ball"
N-6565-N332**	1965-up	289/302 with 302/351W production heads, flat tappet cam, stamped steel and most roller rockers $\ensuremath{\mathbb{O}}$	.312"	6.905"	"Ball and Ball"
N-6565-L460**		429/460 production heads ①	.312"	8.550"	"Ball and Ball"
N-6565-M460*	_	514 roller cam replacement 3	.375"	8.550"	"Ball and Ball"
M-6565-N460*	_	429/460 CJ aluminum heads ③	.375"	8.725"	"Ball and Ball"
M-6565-P460*	_	460 w/SCJ aluminum heads with hydraulic cams $\circledast$	.375"	8.800" Intake 9.150" Exhaust	"Ball and Ball"
M-6565-R460*	_	514 w/SCJ aluminum heads with mech. roller cam $\ensuremath{\mathfrak{S}}$	.375"	8.850" Intake 9.150" Exhaust	"Ball and Ball"
M-6565-C392*		351W with hydraulic roller cam and M-6049-Z304A heads ③	.312"	7.850"	"Ball and Ball"

**NOTES:** ① Production style hardened and ground for use with guide plate.

2 High-strength "Sportsman" grade hardened and ground for use with guide plate.

③ Premium grade hardened and ground for use with guide plate.

# **VALVE PUSH ROD GUIDE PLATE**

### (SOLD IN PKG. OF 8)

See page 226 for installation instructions. Use with mechanical cams, threaded stud, adjustable (non-rail) rocker arms and hardened push rods. May require modification for use with roller rocker arms.

PART NUMBER	CYLINDER HEAD	PUSH ROD DIAMETER
M-6566-D311	289/302/351W	.3125"
M-6566-D302	302/351C BOSS and Ford Racing	.3125"
M-6566-D429	429/460 production and CJ aluminum	.3125"
M-6566-D351	M-6049-N351/N352	.3125"
M-6566-SCJ	M-6049-SCJ/SCJA/SCJB	.375"
M-6566-Z304D	M-6049-Z304D/Z304DA	.3125"



# VALVE TRAIN COMPONENTS

# **INTAKE VALVES - SINGLE GROOVE** (sold individually)

APPLICATION	HEAD DIAMETER	TIP LENGTH	TOTAL Length	DESCRIPTION
GT-40 Head Aluminum M-6049-Y302/X302/X304	1.940"	0.383"	5.078"	Premium stainless steel, swirl polished, under-cut stem
M-6049-Z304	2.02"	0.290"	5.340"	Premium stainless steel
M-6049-N351/R351	2.020"	0.250"	5.140"	Premium stainless steel
429/460 Wedge CJ Aluminum	2.25"	0.250"	5.265"	Premium stainless steel
429/460 Wedge CJ Aluminum	2.20"	0.250"	5.265"	Premium stainless steel
M-6049-D46	46.83mm	Std.	117.6mm	Premium stainless steel
	GT-40 Head Aluminum M-6049-Y302/X302/X304 M-6049-Z304 M-6049-N351/R351 429/460 Wedge CJ Aluminum 429/460 Wedge CJ Aluminum	APPLICATION         DIAMETER           GT-40 Head Aluminum M-6049-Y302/X302/X304         1.940"           M-6049-Z304         2.02"           M-6049-N351/R351         2.020"           429/460 Wedge CJ Aluminum         2.25"           429/460 Wedge CJ Aluminum         2.20"	APPLICATION         DIAMETER         LENGTH           GT-40 Head Aluminum M-6049-Y302/X302/X304         1.940"         0.383"           M-6049-Z304         2.02"         0.290"           M-6049-N351/R351         2.020"         0.250"           429/460 Wedge CJ Aluminum         2.25"         0.250"           429/460 Wedge CJ Aluminum         2.20"         0.250"	APPLICATION         DIAMETER         LENGTH         LENGTH           GT-40 Head Aluminum M-6049-Y302/X302/X304         1.940"         0.383"         5.078"           M-6049-Z304         2.02"         0.290"         5.340"           M-6049-N351/R351         2.020"         0.250"         5.140"           429/460 Wedge CJ Aluminum         2.25"         0.250"         5.265"           429/460 Wedge CJ Aluminum         2.20"         0.250"         5.265"

Intake Valve

# EXHAUST VALVES - SINGLE GROOVE (SOLD INDIVIDUALLY)

PART NUMBER	APPLICATION	HEAD Diameter	TIP LENGTH	TOTAL LENGTH	DESCRIPTION
M-6505-A304*	M-6049-Z304	1.600"	0.290"	5.365"	Premium stainless steel
M-6505-A351*	M-6049-N351/R351	1.600"	0.250"	5.140"	Premium stainless steel
M-6505-A429*	429/460 Wedge CJ Aluminum	1.76"	0.250"	5.050"	Premium stainless steel
M-6505-B304*	M-6049-Z304	1.600"	0.290"	5.365"	Premium stainless steel
M-6505-D461*	M-6049-D46	35.88mm	Std.	117.6mm	Premium stainless steel

# **VALVE SPRINGS** 12

PART NUMBER	APPLICATION	ТҮРЕ	ID	OD	MINIMUM LOADS – Closed	NEW SPRINGS OPEN
M-6513-A50	289/302/351W with Ford Racing, GT-40 cylinder heads (pkg. of 16) ©©⊘	Single ③	1.006"	1.500"	119 lbs. @ 1.820"	240 lbs. @ 1.400"
M-6513-A351	289/302/351W/460 @	Dual 3	0.800"	1.460"	135 lbs. @ 1.850"	394 lbs. @ 1.175"

### VALVE SPRING NOTES:

① Valve springs with the same load rating (but with different color-coded stripes) may be packaged together.

(2) 1977 and later 302 engines have different installed heights for intake and exhaust valves.

- ③ With damper.
- ④ Requires nylon valve stem seal.
- ⑤ For use on production heads (see page 90) valve spring retainer chart and notes.
- 6 Sold in pkg. of 16.

⑦ Not recommended with stock rocker arm, may have interference.

#### **VALVE GUIDE KIT** M-6510-Y303

· Replacement valve guides for

- M-6049-Y302/Y303/X302/X303/X304/X305
- .300" inside diameter ٠ (undersize)
- .557" outside diameter (standard)
- Sold in sets of 4



# VALVE STEM SEALS POSITIVE-TYPE, **GUIDE-MOUNTED SEAL**

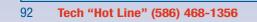
PART NUMBER	TYPE	APPLICATION NOTES	PACKAGING
M-6571-B221*	Nylon	2.3L OHC, All small block and 429/460 ①	Pkg. of 16 seals
M-6571-A50**	Rubber @	GT-40 cylinder heads. No machining required	Pkg. of 8 intake and 8 exhaust seals

NOTES: ① Guides must be machined to 0.530" diameter. See page 224 for details.

② Fits most production 0.550-0.570" diameter guides.











Valve Spring with Damper

# PULLEYS



### SERPENTINE BELT HORSEPOWER PULLEY KITS -MUSTANG 5.0L

M-8509-A50 M-8509-A51\*

M-8509-A50\*

1987-93 5.0L Mustang with serpentine drive belt, A/C and power steering. (E.O. #D-308) 1994-95 Mustang with serpentine belt drive, A/C and power steering. Truck 5.0L/302-1987-96

and 5.81/351-1988-96





M-8509-CM shown

1970-78 MUSTANG

Fits 1970-78 Mustang with

289/302/351W/351C

• Dual groove crank pulley

Single groove water pump pulley

PULLEY SET

4-bolt crank pulley

M-8509-EM\*

BILLET DUAL GROOVE

Serpentine Belt Horsepower Pulley Kit M-8509-A50 shown

Contains steel crankshaft, water pump and alternator pulleys, plus bolts and installation instructions. Reduces accessory drive RPM by: (water pump-14%) and (alternator-22%)...and significantly improves performance! Pulleys are manufactured on state-of-the-art CNC machines and have an awesome blue finish over zinc plating. Pulleys use production serpentine belt.

WARNING: Engine cooling will be reduced.

# **1965-69 MUSTANG BILLET SINGLE GROOVE PULLEY SET**

### M-8509-CM\*

- Fits 1965-69 Mustang with 289/302/351W
- 3-bolt crank pullev •
- Single groove crank pulley •
- Single groove water pump pulley

# **1970-78 MUSTANG BILLET SINGLE GROOVE PULLEY SET**

# M-8509-DM\*

- Fits 1970-78 Mustang with 302/351W/351C
- 4-bolt crank pulley
- Single groove crank pulley •
- Single groove water pump pulley

# **A.C. ELIMINATOR KITS**

M-19216-A50 Fits 1994-95 Mustang and

1991-93 Thunderbird with 5.0L engine

- M-19216-D46 Fits 1996-06 Mustang with 4.6L engine SOHC/DOHC
- · Cast aluminum idler pulley bracket replaces the air conditioning compressor
- Removes weight from the front of car for better weight transfer when racing
- Bolts included
- Uses stock belt

# A.C. ELIMINATOR KIT M-8511-A50\*

Bracket conversion kit to remove air conditioning compressor for racing applications. This two-piece bracket kit moves the power steering pump up to where the A.C. compressor was. Fits 1985-93 Mustang. Requires new belt (not included). Hardware included.



### **OFF-ROAD IDLER BRACKET** (1979-93 MUSTANG) M-8604-A50\*

Competition air pump idler bracket for off-road use only, where air pump is not necessary. This idler is a direct bolt-on replacement for stock air pumps and uses a standard serpentine belt. Fits 302/351 Mustang applications when catalytic converters are not used. Uses stock belt.



# **351W ENGINE SWAP ACCESSORY DRIVE KITS** (1985-93 MUSTANG)

M-8511-A351 Power steering

bracket only Power steering and

M-8511-B351 air conditioning bracket. These brackets allow use of your 5.0L front end

accessory drive components when swapping to a 351W (5.8L) engine. Simply replace production bracket with the new bracket using all existing bolts and hardware. Serpentine belt selection will vary, depending on whether or not you choose to use optional underdrive pulleys.



M-8511-B351

M-8511-A351

COMPONENTS

### UNDERDRIVE HORSEPOWER **PULLEY KIT**

M-8509-D462\* 1996-98 Mustang (Does not fit 1999-04)

- Significant power increase, reduces power loss from accessories by reducing accessory pull speed
- 3-piece kit with hardware and instructions • 4.6L SOHC engines
- Aids acceleration by reducing accessory speed compared to crankshaft

**WARNING:** Engine cooling will be reduced.

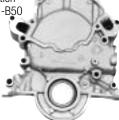


# WATER PUMPS

# REPLACEMENT FRONT TIMING CHAIN COVER

#### M-6059-D351\*\*

- · Aluminum replacement with fuel pump boss
- Fits 289/302/351W
- · For standard rotation pump or M-8501-B50 reverse rotation pump
- Has dipstick tube hole



# SHORT SERPENTINE BELT WATER PUMP KIT

M-8501-A50\* Fits 289/302/351W • Engine overall length from front of water

- pump to back of block is 27'
- Serpentine belt, reverse rotation, approx. 1.75" shorter than old-style pumps
- · Kit includes special timing chain cover with short water pump and gaskets. Drivers-side
- radiator hose inlet Meets OEM specifications for water flow
- A V-8 water pump for a V-8 engine. Must use electric fuel pump NOTE: Requires pulleys listed below:

# M-8509-M\*\*

Special 3-piece aluminum pulley kit. Includes water pump, crankshaft and alternator pulley for above water pump kit.

# SHORT SERPENTINE BELT WATER PUMP

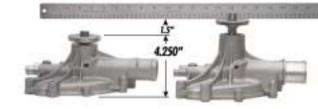
- M-8501-D50\*\*
- Same water pump used in short serpentine water pump kit, M-8501-A50
- Direct replacement for 1994-95 Mustang 5.0L/302
- Can be used with the Explorer timing chain cover found on M-6007-B50/B51/XE3/XB3 crate engines
- A new water pump for the price of a remanufactured pump



# STREET ROD SHORT V-BELT WATER PUMP

- M-8501-E351S\* Fits 289/302/351W
- Driver's-side radiator hose inlet
- Provides approx. 1.5" of space at the front of the engine allowing for more radiator to fan clearance without a recessed fire wall
- Must use with long style (3.950") 4-bolt damper. • Can also use M-6316-A50 or M-6316-C351 with appropriate spacer. See page 81
- .750" pulley pilot shaft •
- Fits M-6059-D351 timing chain cover

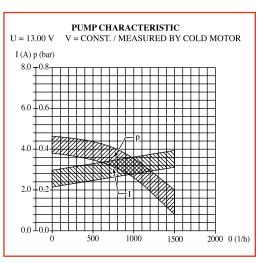




# **ELECTRIC WATER PUMP** M-8501-L54\*\*

- Production 2003 F-150 Lightning intercooler coolant circulation pump
- Inlet and outlet hose connection diameter is 19mm/3/4"
- Can be used in many coolant pumping applications





Did you know...

1968-80 302 engines were built with a 28-ounce imbalance factor. 1981-01 302 engines were built with a 50-ounce imbalance factor. 1969-97 351W engines were built with a 28-ounce imbalance factor. **1970-74 351C engines were built with a 28-ounce imbalance factor.** 

NOTE: Severe engine damage will result if you use the wrong flywheel or damper on your engine.



# NASCAR RACE WATER PUMP ASSEMBLY

# M-8501-D351S\*

- High-performance water pump for 302/351W with V-belt drive
- Precision ground 1/2" steel billet fan hub with dual bolt pattern and fan hub set screw for positive positioning
- 356-T6 heat-treated aluminum specially ribbed casting for increased strength
- 3/4" bearing featuring a ball/roller internal design that increases the radial load capacity of the bearing to make it up to 5 times stronger than a standard bearing
- Severe duty, high-flow, high-pressure pump ٠
- 6-blade cast iron impeller, precision
- machined and balanced
- 5.700" hub height
- Use with standard rotation timing chain cover like M-6059-D351
- Recommended for high-RPM endurance applications



#### WATER PUMP HOUSING M-8505-B331\*

Fits all small blocks. Aluminum housing. Widely used in all types of competition.

**NOTE:** Water inlet is on left (driver side) of engine. Assemble using M-8564-A351 kit and M-8512-A302 impeller.

NOTE: Housing accepts standard 351W rear cover plate. Available from Raceparts Distribution Inc. (704) 892-8688.



### WATER PUMP IMPELLER M-8512-A302\*

Water pumps with rear cover and V-belt drive Cast iron highefficiency curved vanes to reduce coolant "cavitation" (partial vacuum) at high RPM.



For use with M-8505-B331 housing and M-8512-A302 impeller. The brass slinger sleeve must be removed to assemble water pump. The kit contains bearing shaft, seal and seat assembly and fan hub.



# **351 FORD RACING NASCAR** WATER PUMP KIT

M-8501-A58\* Housing and Spacers M-8501-R351\* Water Pump Designed to meet the durability requirements of NASCAR race engines, this new pump

has many impressive features. • Improved efficiency, requires 2.5 HP less

- to drive the pump at 8000 pump shaft RPM, than our present pump. A 40% reduction
- Pumps 53 gallons per minute at 8000 pump shaft RPM
- Bolts directly onto "Yates" belt drive front cover. • Production front cover requires adapter plates included in the kit
- · Removable pump assembly for easy service, making rebuilds unnecessary
- Improved reliability, no rear cover plate to leak



# **MAXIMUM FLOW 429-460 ALUMINUM WATER PUMP**

**M-8501-C460** Fits 429-460 big blocks Premium guality aluminum casting. Driver side water inlet. Maximum flow capacity. Accepts stock brackets and pulleys for most 1970 and newer Vbelt engines. Standard rotation.

**NOTE:** Now used on 460 and 514 crate motors



#### **STOCK FLOW** REPLACEMENT WATER PUMPS M-8501-C50

- Reverse rotation serpentine belt aluminum water pump for 1986-93 5.0L/5.8L engines
- Standard shaft and bearing with stamped impeller
- Provides good flow and pressure for engines that operate below 6000 RPM
- Can be used on 1979-85 with minor modifications

# M-8501-G351\*\*

- Standard rotation V-belt aluminum water pump for 5.0L/5.8L engines stamped impeller
- Provides good flow and pressure for engines that operate below 6000 RPM Can be used with
  - M-6059-D351 timing chain cover or stock V-belt timing cover

#### **MAXIMUM FLOW** ALUMINUM WATER PUMPS M-8501-B50

- Premium reverse rotation serpentine belt aluminum water pump for 1986-93 5.0L engines
- Features HD 3/4" ball/roller bearing, CNC machined curved vane impeller and billet steel hub
- Provides maximum flow, maximum pressure and equal distribution to both sides of the block



# M-8501-F351

- Premium standard rotation aluminum water pump for 1970-78 5.0L and 1970-87 351W engines
- Same features as M-8501-B50 pump



# ENGINE COMPONENTS

# **OIL PUMPS**

M-6600-M50 289/302

Standard Volume Requires bolt-on pickup (not included)

M-6600-D2

High Volume Requires bolt-on pickup (not included)

289/302

M-6600-B3 351W

High Volume Requires bolt-on pickup (not included)

M-6600-A460

429/460 Wedge High Volume Fits rear sump Ford truck oil pan. Bolt-on style

pickup (not included). Does not fit 429 Cobra Jet **NOTE:** High-volume pumps may require minor modification of oil pan.

**CRANKCASE EVACUATION PUMP** M-9486-A460\*

This low-cost crankcase evacuation pump increases HP by creating a vacuum in the crankcase.

NOTE: Does not include brackets or pulleys. Max. 5000 RPM pump speed. Pulley bolt pattern (3) M6 x 1 - 6H. Pulley bolt holes on 1.170" bolt circle. Pilot shaft .5007-.4987" Dry sump only.

# **OIL PAN WINDAGE TRAY** (351W)

M-6687-A351 351W Production Kit includes windage tray and main cap bolts for installation. Fits front sump and double hump oil pans on 351W 2-bolt production and "Sportsman" blocks. Will not fit 351 Ford Racing blocks.

#### MAIN CAP GIRDLES M-6340-A302

M-6340-A347

M-6340-B351

M-6340-A460

289/302 ① 302/347 Stroker ① 351W production block and M-6010-B58 429/460 production block

Made from high-strength 6061-T6 aluminum. Fits 2-bolt main production blocks. Ties all 5 main caps together. Includes main cap studs. Production pans may require modification.

NOTE: 1 Will not fit 1991 and newer dual sump pan and pick up tube.



# **OIL PUMP DRIVE SHAFTS**

M-6605-A302 289/302 ① M-6605-B302 1987-95 5.0L M-6605-A341 351W/All 351 Ford Racing ① M-6605-A351 351C/351M/400 M-6605-A427 390/427/428 M-6605-A429 429/429 BOSS/460 Heavy duty. Chrome moly steel. Centerless ground. NOTE: 1 Will not fit EEC-IV equipped engines.

# **OIL PAN WINDAGE TRAY-KIT 289-302**

Kit consists of windage tray and attaching bolts originally designed for the 1969-70 302 BOSS engine with front sump oil pan. Requires modification if used with rear sump pan, oil pan designed for use with rack-and-pinion steering or oil pan for 302 Ford Racing blocks.



# **OIL PAN WINDAGE TRAY -KIT 352 THRU 428**

M-6687-A390 352 thru 428 "FE" V-8 engines Consists of windage tray and 2 gaskets.



# **BILLET ALUMINUM WINDAGE TRAYS** M-6687-B302

Bolts to M-6340-A302 or M-6340-A347 main cap girdle. Vane construction channels oil away from crank to reduce windage losses and oil aeration.

# M-6687-B351

Bolts to M-6340-A351 main cap girdle. Vane construction channels oil away from crank to reduce windage losses and oil aeration.



M-6687-B351 shown





# **ENGINE LUBRICATION PARTS**



# FORD RACING HIGH-PERFORMANCE OIL FILTERS

# SOLD AS CASE OF 12

- Synthetic-Polymer/Cellulose-Fiber blend media
- Heavy gauge base and canister for higher burst strength and impulse fatigue resistance
- High-guality silicone anti-drain back valve
- · Non-stick sealing gasket for ease of installation and removal
- Long life with standard and synthetic motor oils

- Up to 50% more filtering capacity then standard filters
- Improved filtering efficiency
- This technology is only available through Ford Racing Performance Parts

MOTORCRAFT PART NUMBER	PERFORMANCE FILTER PART NUMBER	
FL300	CM-6731-FL300 (Each) ①	M-6731-FL300 (Case of 12)
FL1A	CM-6731-FL1A (Each) ①	M-6731-FL1A (Case of 12)
FL820S	CM-6731-FL820 (Each) ①	M-6731-FL820 (Case of 12)
FL400S	CM-6731-FL400 (Each) ①	M-6731-FL400 (Case of 12)
FL1995	CM-6731-FL1995 (Each) ①	M-6731-FL1995 (Case of 12)
FL784	CM-6731-FL784 (Each) ①	M-6731-FL784 (Case of 12)
FL299	CM-6731-FL299 (Each) ①	M-6731-FL299 (Case of 12)



**NOTE:** ① Check Ford Racing Distributors for single filter part numbers.

# **OIL FILTER ADAPTER**

M-6880-A50

- · Screws into block and rotates filter toward front of engine to provide clearance for engine swaps and chassis modifications
- · Fits most Ford engines that use Motorcraft FL-1A oil filter



### 90° ROTATING OIL **FILTER ADAPTER** M-6880-C50

- · Recommended for all pushrod crate engines in kit cars, street rods and race cars
- · Fits all engines that use FL1A oil filter
- High-performance, high-flow adapter machined from billet aluminum
- Can be rotated 360°
- fittings and filter mount not included

#### **REMOTE-MODIFIED OIL** FILTER ADAPTER KIT M-6881-C100

All engines with 3/4"-16 thread filter and 2.435" diameter O-ring. This kit contains all necessary parts to mount the oil filter off the engine, including block adapter, oil filter mount, hose and attaching parts. Not recommended for performance engines. Use M-6880-S



#### **REMOTE MOUNTED OIL** FILTER ADAPTER KIT M-6881-A54\*

- Fits late model V-8 modular engines and other engines that use a Motorcraft FL-820/FL-820S oil filter, with 22 x 1.5mm thread filters. Allows oil filter removal with little or no spillage. Uses FL-1A. FL-1HP or M-6731-H filter
- The kit contains all necessary parts to mount the oil filter off the engine, including the block adapter, oil filter mount, hose and attaching parts. Instructions included to mount the filter in the wheel well on most Mustang applications.
- **NOTE:** Not recommended for performance engines



# **HEAVY-DUTY OIL** FILTER MOUNT M-6880-S

- Uses extra large capacity filter M-6731-FL784 (sold separately)
- Inlet and outlet tapped for 3/4" pipe thread for maximum flow



#### **ENGINE OIL COOLER KIT HEAVY-DUTY SELF-REGULATING TYPE** M-6642-S101

Unique patented "stacked-plate" design provides efficiency improvement of 35% over "fin-and-tube" coolers. This 8" x 11" x 1.5" unit has a heat rejection rate of 20,500 BTUs per hour. The self-regulating feature bypasses cold engine oil automatically (without thermostats or valves) until oil viscosity decreases and allows oil to flow through the main body of the cooler. Kit includes all fittings, attaching hardware and instructions. Use on engines with FL-1A filters.





Use with M-6880-S oil filter mount

# **ENGINE LUBRICATION PARTS**

OIL PANS				
PART NUMBER	SUMP	CAPACITY	FINISH	APPLICATION/DESCRIPTION
M-6675-B302**	Front	5-quart	Chrome	Chrome pan for 289/302. Will not fit F-Series truck, Bronco, vans, or 1974 and later Mustang. Embossed with "Ford Motorsport" logo.
<b>M-6675-C302**</b> ①	Rear	5-quart	Chrome	Production pan for 1991-95 5.0L H.O. engine. Also fits 1983-90 models, but requires oil pump screen and cover assembly F3ZZ-6622-A included. Oil pan will accept low oil level warning indicator. One-piece oil pan gasket included. Pan will not fit 1979-82 models with dipstick in the oil pan.
M-6675-C351**	Front	5-quart	Chrome	Stock replacement for 351C, 351M and 400 passenger cars.
M-6675-E351**	Front	5-quart	Chrome	Stock replacement for 351W passenger cars.
M-6675-F351**	Front	5-quart	Unplated	Stock replacement for 351W passenger cars.
M-6675-L302**	Front	5-quart	Unplated	Stock replacement for 302 passenger cars.
M-6675-J390**	Front	5-quart	Chrome	Stock, front sump, replacement oil pans for passenger cars with "FE" engines (332/352/390/406/410/427/428). Will not fit trucks with 4WD.
M-6675-K390**	Front	5-quart	Unplated	Stock, front sump, replacement oil pans for passenger cars with "FE" engines (332/352/390/406/410/427/428). Will not fit trucks with 4WD.
M-6675-D46**	Rear	5-quart	Painted	Stock replacement for 4.6L Mustang and Cobra.

NOTE: ① You can plug low oil level sender hole using part number E4AZ-6A828-A plug, and E4AZ-6C626-B (washer). These can be purchased from your local Ford dealer.







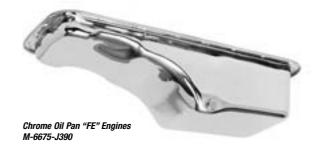
Chrome Oil Pan 351C M-6675-C351





Chrome Oil Par M-6675-C302







#### 302 REAR SUMP **OIL PAN** M-6675-T302

- Use with M-6622-T302 oil pickup tube
- Increased capacity and baffling over stock pans for better oil control



# **302 FRONT SUMP OIL PAN**

- M-6675-T302F • Use with M-6622-T302F
- oil pickup tube · Increased capacity and
- baffling over stock pans for better oil control



#### **351 REAR SUMP OIL PAN** M-6675-T351

- Use with M-6622-T351 oil pickup tube
- · Increased capacity and baffling over stock pans for better oil control



# **351 FRONT SUMP OIL PAN**

#### M-6675-T351F

- Use with M-6622-T351F oil pickup tube
- · Increased capacity and baffling over stock pans for better oil control

#### "FE" 360/390/427/428 FRONT SUMP OIL PAN M-6675-T390F\*

- Use with M-6622-T390F oil pickup tube
- Increased capacity and baffling over stock pans for better oil control



#### 429/460 FRONT SUMP **OIL PAN** M-6675-T460F\*

- Use with M-6622-T460F oil pickup tube
- Increased capacity and baffling over stock pans for better oil control



# 302 FRONT SUMP **OIL PICKUP TUBE** M-6622-T302F • Use with M-6675-T302F oil pan

- 3/4" diameter tube, screen style pickup

M-6622-T302

M-6675-T302 oil pan

Use with



# **351 REAR SUMP OIL PICKUP TUBE**

**302 REAR SUMP OIL PICKUP TUBE** 

- M-6622-T351
- Use with M-6675-T351 oil pan
- 3/4" diameter tube, screen style pickup

#### 351 FRONT SUMP **OIL PICKUP TUBE** M-6622-T351F

- Use with M-6675-T351F oil pan
- 3/4" diameter tube, screen style pickup



COMPONENTS

#### "FE" 360/390/427/428 FRONT SUMP OIL PICKUP TUBE M-6622-T390F

- Use with M-6675-T390F oil pan
- 3/4" diameter tube

### 429/460 FRONT SUMP **OIL PICKUP TUBE** M-6622-T460F

- Use with M-6675-T460F oil pan
- 3/4" diameter tube.
- screen style pickup Use with truck



oil pump only

# ROLLER ROCKER ARMS

## **PERFORMANCE FEATURES:**

# **DESIGN FEATURES:**

- Reduces friction and horsepower loss
- Increases high-RPM train stability
- High-strength trunnion supported by needle roller bearings
- Grade 8 adjusting nuts
- Precision machined from 2024 high-tensile strength aircraft alloy extrusions

PART NUMBER Package of 16	PART NUMBER Package of 2	APPLICATIONS	DESCRIP Ratio	<u>TION</u> MOUNTING	VALVE TYPE	NOTES
M-6564-A351*	M-6564-AS51*	289/302/351W and Ford Racing	1.60:1	Stud	Inline	Requires 3/8" stud, push rod guide plates and hardened push rods. Cast iron cylinder
M-6564-D351*	M-6564-DS51*	aluminum cylinder heads M-6049-J302	1.70:1	Stud	Inline	heads require pedestal machining.
M-6564-K351*	N/A	289/302/351 Ford Racing aluminum cylinder head M-6049-Z304	1.60:1	Stud	Inline	Requires 7/16" stud, push rod guide plates and hardened push rods. Cast iron cylinder heads require pedestal machining.
M-6564-B351*	<b>M-6564-BS51*</b> 13	302/351W– 1978 and later with	1.60:1	Bolt On	Inline	For stock production cast iron cylinder heads with hydraulic non-adjustable valve
<b>M-6564-E351*</b> 13	<b>M-6564-ES51*</b>	production heads Cast iron and aluminum GT-40 heads	1.70:1	Bolt On	Inline	train. Does not require guide plates, hardened push rods or pedestal machining. Includes pedestal inserts and bolts.
<b>M-6564-A50*</b> ①②		302/351W – 1978 and later with production heads Cast iron and aluminum GT-40 heads		Bolt On	Inline	Same as "Cobra" 5.0L Mustang. These rocker arms have beefy trunnions for extra long life. Die-cast aluminum construction.
M-6564-F351*	N/A	M-6049-N351/N352 "Sportsman" head	1.65:1	Stud	Inline	7/16" stud mount intake rocker with .150" offset pushrod cup (pkg. of 16).
M-6564-C351*	M-6564-CS51* 351C/351M/400 1973 and later 429/460 production cylinder heads		1.73:1	Bolt On	Canted	For stock production canted valve cylinder heads with hydraulic non-adjustable valve train. Does not require guide plates, hardened push rods or pedestal machining. Includes pedestal inserts and bolts.
M-6564-A460*	M-6564-AS60*	351C/351M/400 302 BOSS/429/460, 429 CJ/SCJ and Ford Racing high-port aluminum cylinder heads	1.73:1 s	Stud	Canted	For canted valve cylinder heads. Requires 7/16" stud, push rod guide plates, and hardened push rods. Some cast iron cylinder heads require pedestal machining.

**NOTES:** ① The M-6564-B351 and -E351 bolt-on roller rocker arms will not clear the stamped rocker cover on standard 5.0L EFI engines. "Taller" valve covers, such as the production 5.0L EFI HO die-cast aluminum cover or Ford Racing chrome cover M-6582-D302, can be used if the baffle is modified in the RH cover. The M-6582-E302 polished aluminum valve cover will clear all rocker arms and stud girdles, but will not fit under the EFI manifold unless a 1" spacer M-9486-A53 is used between the upper and lower sections of the intake. M-6582-E302 will not fit 1994-95 Mustang or 1990-93 T-Bird.

② Serviced individually from your Ford or Lincoln-Mercury dealer.

③ Rocker channels not included.



"Cobra" Roller Rocker

Bolt-On Type Roller Rocker Arm Assembly

Stud-Mounted Type

# OIL PAN KITS



# **OIL PAN CONVERSION KITS**

# **SERPENTINE 1979-93 FOX CONVERSION KIT**

M-6670-A50\*

This kit is intended for customers that

purchase one of our 5.0L long block crate engines and plan to install it in a 1979-93 Mustang or other Fox chassis vehicle. This kit includes: dual sump oil pan, oil pump pickup tube, dipstick, dipstick tube, crankshaft damper, timing pointer, M-8501-C50 reverse rotation serpentine water pump, and M-6059-D351 timing chain cover.

NOTE: Does not have provision for low oil sender. Fasteners not included.



### **ENGINE SWAP OIL PAN KITS**

#### APPLICATION/DESCRIPTION PART NUMBER FINISH SUMP CAPACITY M-6675-A50 Unplated 5.0L oil pan kit. Includes rear sump oil pan, dipstick, dipstick tube, pickup, and main cap stud. Rear 5-quart Ideal for engine swaps. Fits 1979-95 Mustangs and Fox chassis vehicles. Fits 1983-01 production blocks and M-6010-A50/B50 blocks. NOTE: Does not have provision for low oil sender. Fasteners not included.

WI-0075-A58	Rear	5-quart	Unplated	351W/5.8L oil pan kit. Includes rear sump oil pan, dipstick, dipstick tube, pickup, and main cap stud. Ideal for engine swaps. Fits 1979-95 Mustangs and Fox chassis vehicles. Fits 1969-04 production blocks and M-6010-A351/A58 blocks. Fasteners not included.
M-6675-A460	Rear	6-quart	Unplated	429/460/7.5L oil pan kit. Includes rear sump oil pan, dipstick, dipstick tube, pickup, and main cap stud. Ideal for engine swaps. Fits 1979-95 Mustangs and Fox chassis vehicles. Fits 1969-97 production blocks and M-6010-A75 blocks. Fasteners not included.



This kit is intended for customers that purchase one of our 5.0L long block crate engines and plan to install it in a street rod or custom vehicle. This kit includes: dual sump oil pan, oil pump pickup tube, dipstick, dipstick tube, crankshaft damper, timing pointer, M-8501-G351 standard rotation water pump, and M-6059-D351 timing chain cover. NOTE: Does not have provision for low oil sender. Fasteners not included.



# ENGINE GASKETS

# HIGH-PERFORMANCE ENGINE GASKET SETS

Ford Racing introduces three complete overhaul gasket sets. Manufactured to Ford's specs by Fel Pro<sup>®</sup>. The kits include race quality head gaskets and Print-O-Seal<sup>®</sup> intakes, oil pan and valve cover gaskets. They also include front and rear oil seals plus all gaskets for a complete rebuild. These high-performance gasket sets are a must when rebuilding.

M-6003-A50\*\* ① One number Fits 289/302/351W (1963-01)

**M-6003-A429\*\*** One number Fits 429/460 (1968-87)



NOTE: 1) Does not include one-piece rear main for 351W, use M-6701-B351.

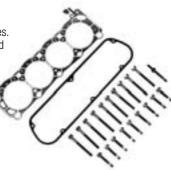
### HIGH-PERFORMANCE GASKET KIT FOR 5.0L ENGINE M-6051-A50\*\* ①2



Recommended for high-performance applications and with Ford Racing supercharger kits. This gasket kit really works and will eliminate sealing issues associated with 5.0L engines for most applications. The kit includes: 2 expanded graphite head gaskets (M-6051-B51), 2 high-tech metal with bonded 0-ring rocker cover gaskets (M-6584-A50), and 1 engine set of torgue-to-yield cylinder head bolts.

### NOTES:

- ① The bolts can be used three times. New bolts are available from Ford and Lincoln-Mercury dealers. Same parts as used on production 1993-01 5.0L.
- ② Do not use kit with "lipped" valve covers.



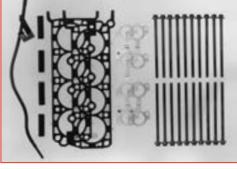
#### CYLINDER HEAD CHANGING KIT M-6067-D46\*\* SOHC 2V

M-6067-D46\*\* M-6067-T46\*\* M-6067-T50\*\*

DOHC 4V ①

**M-6067-T50\*\*** "Cammer" 5.0L DOHC 4V ① Contains all components necessary for changing cylinder heads on 1996-04 4.6L Mustang. Includes several parts that make this task significantly easier. Highly recommended when installing M-6049-D46/P46/T46 cylinder heads.

**NOTE:** ① Except supercharged engines.



M-6067-D46 shown

# ONE-PIECE RUBBER OIL PAN GASKETS



**M-6710-A50**\*\* 5.0L Designed for use with smooth rail oil pans. One-piece design, rubber bonded on steel reinforcement. Fits 1983-01 block/oil pans with dipstick in the block.

# M-6710-A351\*\* 351/5.8L

Designed for use with smooth rail oil pans. One-piece design, rubber bonded on steel reinforcement.

# M-6710-B351\*\* 351/5.8L

Designed for use with ribbed rail oil pans. One-piece design, flexible rubber.

**M-6710-A460\*\*** 429/460 Designed for use with smooth rail oil pans. One-piece design, rubber bonded on steel reinforcement.

M-6710-B460\*\* 429/460 Designed for use with

ribbed rail oil pans. One-piece design, flexible rubber.



④ Similar to M-9439-A302 without Print-O-Seal<sup>®</sup>.

# **INTAKE MANIFOLD GASKETS** (SOLD IN PKG. OF 2)

**NOTE:** None of the following race-quality gasket kits include rubber end seals.

	ler or production end seals.	Intake Manifol	Intake Manifold Gasket M-9439-B302 with Print-O-Seal®		
PART NUMBER	MANIFOLD APPLICATION	CYLINDER HEAD APPLICATION	PRINT-0-SEAL®	GASKET THICKNESS ± .004	
M-9439-A302*	M-9424-A321	289/302/351W, M-6049-J302/K302/L302/L303/Y302/ Y303 no EGR	Yes	0.050"	
M-9439-B302**	All	289/302/351W, M-6049-J302/K302/L302/L303/Y302/ Y303 with EGR	Yes	0.050"	
M-9439-A50*	All	M-6049-L302/L303/X302/X303/X304/X305/Y302/Y303 with or without EGR	Yes	0.070"	
M-9439-A51*	All	M-6049-L302/L303/X302/X303/X304/X305/Y302/Y303 without EGR @@	No	0.090"	
M-9439-E460*	M-9424-C460	M-6049-C460/D460	No	0.060"	
M-9439-F460*	M-9424-C460	M-6049-C460/D460	No	0.125"	
M-9439-R352*	M-9424-W352	M-6049-C3H	No	0.050"	

NOTES: ① Synthetic rubber Print-O-Seal® (Fel Pro Inc.) bead around ports provides improved sealing. 3 Teflon coated, steel reinforced.

2 Redesigned for improved port location and allows mild porting.

# **OIL PAN GASKET SET** (ENGINE)

M-6781-A341\*\* 351W Consists of 2 side rail gaskets and 2 rubber end seals.



# **CRANKSHAFT REAR OIL SEAL**

M-6701-A460\*\* 429/460/600 two-piece, split-lip design M-6701-B351\*\* 351W from 7/11/83, Ford Racing one-piece seal. Use on Ford Racing 351W blocks manufactured after 6/1/93.

High-temperature resistant Viton material.

NOTE: Use E5ZZ-6701-A one-piece seal for 1983 and later

2.3L OHC models. Available at your Ford or Lincoln-Mercury dealer.

#### **REAR MAIN SEAL** M-6701-B302\*\*

- · Direct replacement one-piece crankshaft rear main seal for 1983-02 5.0L/302 blocks
- Also fits Ford Racing blocks M-6010-R302, M-6010-A50 and M-6010-B50

# EXHAUST MANIFOLD GASKETS - RACE QUALITY (SOLD IN PAIRS)

PART NUMBER	CYLINDER HEAD APPLICATION		
M-9448-A351*	"Sportsman" head M-6049-N351/R351	0000	
M-9448-B302**	Production 289/302/351W, M-6049-Y303/L302/X302/X303		$\partial - \partial -$
M-9448-A462*	4.6L SOHC	0000	0000
M-9448-A464*	4.6L DOHC		M-9448-A462 shown

NOTE: Header flanges available from Hedman headers. Contact local distributor.

# VALVE ROCKER ARM COVER GASKETS (SOLD IN PAIRS)

PART NUMBER	APPLICATION	DESCRIPTION/NOTES	
M-6584-A50**	5.0L/302/351W	Production-type design featuring metal gasket with bonded O-ring. Part of high-performance 5.0L gasket kit M-6051-A50 (see page 102). Designed for valve covers without a gasket lip.	
M-6584-A460*	429/460 Wedge	Competition quality gasket set. Cork-rubber material is laminated to a steel core to produce superior strength and resistance to distortion and creep. Recommended for use with M-6582-C460/R460 die-cast rocker arm cover.	M-6584-A50 shown
M-6584-A452*	351C/351M/400 and M-6049C3L/SCI/ C3H/D3 Heads	Precision edge—molded silicone rubber sealing beads on a rigid carrier to resist high heat and high vacuum. Built-in torque limiters prevent over compression and gasket splitting. Great for on-again/off-again applications.	M-6584-A452 shown

www.fordracingparts.com

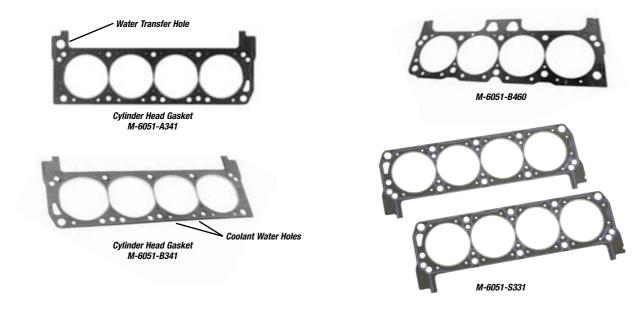
# ENGINE GASKETS

PART NUMBER	CYLINDER BORE Application	BORE Diameter	GASKET Diameter	COMPRESSED Thickness	COMPRESSED Volume	DESCRIPTION
M-6051-A302**	289/302/351W Production-Type Cast Iron and Aluminum Heads	4.00"	4.100"	0.042"	9.1cc	4.00" standard bore "competition" gasket for cast iron or aluminum cylinder heads on 302 and 351W production blocks. Features solid metallic core with wire encased combustion chamber seal for applications. Surfaces are Teflon coated.
M-6051-B51**	302 Production	4.00"	4.100"	0.040"	8.8c	4.00" standard bore expanded graphite gasket for high-performance applications. Part of M-6051-A50 5.0L gasket kit described on page 102. Requires torque-to-yield cylinder head bolts (available from Ford and Lincoln-Mercury dealers).
M-6051-A341*	351C/351M/400	4.00"	4.100"	0.040"	8.8cc	"Competition" gasket for use with "Cleveland" type block.
M-6051-S331	302/351	—	4.100"	—	—	Pre-flattened steel wire combustion ring. Exhaust side is straight to accommodate FRPP block water passages
M-6051-CP331	302/351	—	4.100"	—	—	Pre-flattened copper wire combustion ring. Exhaust side is straight to accomodate FRPP block water passages
M-6051-B341*	Big Bore 351 Ford Racing Blocks	4.125"	4.160"	0.040"	9.1cc	4.125" overbore "competition" gasket. Designed for Ford Racing blocks with larger 4.125" overbore. Bore flange valve pockets have been added to unshroud intake and exhaust valves. Set includes unique RH and LH gaskets!
M-6051-R351*	302/351 Ford Racing	Up to 4.125"	4.160"	0.040"	9.0cc	For use on M-6010-R351/R352/R451/R452.
M-6051-A427**	All "FE" V-8	4.230"	4.400"	0.040"	9.7cc	Race quality gasket with steel wire combustion ring and stainless steel armor.
M-6051-A441**	429/460 Wedge	4.360" Std.	4.500"	0.0425"	11.2cc	Race quality "competition" gasket. Features solid metal core and wire encased combustion chamber seal.
M-6051-B460*	429/460 Wedge	Up to 4.625"	4.670"	0.038"	10.7cc	Competition gasket with round water openings to match M-6010-A460 and -A600 engine blocks.

# CYLINDER HEAD GASKETS (SOLD IN PAIRS) ①

# NOTES:

① Several different water hole patterns have been used on 302 and 351W Ford Racing cylinder blocks and heads since their introduction. Engine assemblers should lay the head gasket on the block and the cylinder head (with front of gasket toward the front of the engine) to make sure there is a path for coolant flow from the block into the head. In some cases, holes may have to be drilled in the block or head or punched in the gasket.



# FASTENERS, PLUGS, DOWELS



### INTAKE MANIFOLD BOLT KIT (EFI GT-40)

M-6002-A50 5.0L/302 1994-95 with EFI GT-40 manifold. Kit includes bolts required to install GT-40 EFI upper manifold on 1994-95 Mustang.

# C460 "SPORTSMAN" HEAD STUD KIT

#### M-6014-G500\*

- Fits M-6049-C460 heads on M-6010-A460 block
- Sold in engine sets, includes studs, nuts and washer
- Manufactured by ARP exclusively for Ford Racing

# **CAMSHAFT PLUG**

M-6026-S351\* 302/351 Ford Racing blocks camshaft plugs to service M-6010-R302/S302/R351/ R352/R353/R354/R355/ S351/V351/W351 blocks. Package of 10.

### REPLACEMENT PARTS FOR M-6010-C302/J351/K351 ALUMINUM BLOCKS

### M-6012-A351\*

Service replacement cylinder bore sleeve for Ford Racing 302 and 351 aluminum cylinder blocks. Sleeve ID is 3.98". Length is 5.820". The length can be trimmed to fit.

#### M-6012-B351\*

Same as M-6012-A351 except OD is .010" oversize.

#### HEAD BOLT KIT M-6065-D289\* 351W

-D289^ 38

351W type heads on 289/302 block tock 351W Ford Bacing

Use when installing stock 351W, Ford Racing cast iron (M-6049-L302/L303) or Ford Racing aluminum head (M-6049-Y302/Y303/X302/X303/X304/X305) on 289/302 blocks. Kit features 20 ARP® cylinder head bolts with .4375" diameter thread. Includes 20 special stepped washers. Services two heads.

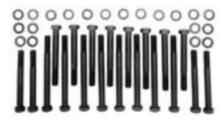


# HEAD BOLT KITS (351) M-6065-B58\*\*

Head bolt kit contains 20 head bolts for assembling 351W engines with stock or GT-40 heads. Washer faced bolts .5" thread.

### M-6065-C351\*

M-6049-N351/N352 cast iron "Sportsman" heads on 351/351W/302 Ford Racing blocks Contains 20 .5" bolts.



REPLACEMENT PLUG KIT M-6026-R452\* Fits M-6010-R451 block



# **"STAGE 8" LOCKING HEADER BOLT SYSTEMS**

These kits fit most V-8 and many other engines. Includes (16) bolts and locking hardware.

PART NUMBER	SIZE	FITS
M-9432-A50	.375-16 x .75" ①	Most Headers
M-9432-A51	.375-16 x 1" ①	Ford Racing Hi-Flow Shorty Headers
M-9432-A54	8mm-1.25 x 22mm	4.6L/5.4L Modular V-8 Engines

 100% reliable, zero failures in more than 6,000,000 applications. Header fasteners absolutely, positively will not back out. Eliminates need to monitor and tighten bolts regularly

- Grade 8 aircraft quality bolts made in U.S.A. Duplex nickel plated
- Manufacturer's Lifetime Warranty
- NOTE: 1) Will not fit 4.6L/5.4L modular V-8



# PLUG AND DOWEL KITS

M-6026-A302\*\* 289/302/351W Necessary dowels, cup plugs and pipe plugs for rebuilding Ford Racing M-6010-A4 and production V-8 blocks.

M-6026-R351\* 351 Ford Racing Necessary dowels, cup plugs and pipe plugs for rebuilding Ford blocks: M-6010-R302/R351/ R352/R353/R354/R355/S302/S351/V351/W351.

#### M-6026-A460\*

Use with M-6010-A460 cylinder block. Kit includes cam plug, oil gallery plugs, transmission dowels and head dowels.

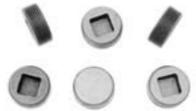
### M-6026-A58\*

- Replacement plugs and dowel kit for M-6010-A58/B58 blocks
- Includes all special cup plugs and dowels



#### M-6026-A302 shown

**M-6026-B302\*** 289/302/351W/351C Threaded freeze plug (1.25" NPT) kit for all small V-8 engine blocks. Does not include dowels.



O-RING AND DOWEL KIT

M-6026-R451\* Use with M-6010-R451/S451 blocks



#### CYLINDER HEAD STUD KIT M-6014-Z304

- Use when installing M-6049-Z304/Z304A heads on a "Sportsman II" 351W block
- .500" diameter studs with 12 point nuts and hardened washers



# IGNITION AND ELECTRICAL



# **CUSTOM BILLET WIRE LOOMS**

4-Wire Divider

4-Wire Divider

4-Wire Divider

Blue

Red

Black

8-10mm

8-10mm

8-10mm

M-12297-L900 With Ford Oval M-12297-L901 With V-8 Logo M-12297-L902 With Ribs only M-12297-L903 With Mustang Logo All new billet aluminum spark plug wire looms with ball milled logos. Fits 8mm and 9mm wire. Keeps all wires neat and away from headers. Adjustable brackets fit all big and small block engines, except "FE" V-8. Use universal spark plug wires (see page 107).

M-12297-B04

M-12297-R04

M-12297-M04



Wire Loom Holder

Wire Loom Holder

Red

Black

8-10mm

8-10mm

M-12297-R14

M-12297-M14



#### 9MM SPARK PLUG WIRE SETS -"FORD RACING"

Wire-wound custom ignition wire sets feature low resistance for minimum spark loss. Silicone insulation and boots withstand high temperatures and voltage loss for minimum cross-fire and are highly resistant to fuels, oils and solvents. Long-life, tough stainless steel terminals for "post" type distributor caps. Includes coil wire for socket-type coil and "Ford Racing" identification. Cylinder number appears on each wire.

#### **NEW AND IMPROVED**

Spark plug wires feature high-quality 9mm wire available in 4 colors: blue, black, yellow and red.



M-12259-C462 / Mustang 4.6L SOHC 9mm Wire Set



M-12259-Z2 / 4-cylinder

PART NUMBER	APPLICATION	WIRE COLOR	END CONFIG.
M-12259-C301**	5.0/5.8L V-8 Engine	Blue	45° Boot
M-12259-R301**	5.0/5.8L V-8 Engine	Red	45° Boot
M-12259-M301**	5.0/5.8L V-8 Engine	Black	45° Boot
M-12259-Y301**	5.0/5.8L V-8 Engine	Yellow	45° Boot
M-12259-C460**	7.0/7.5L V-8 Engine	Blue	45° Boot
M-12259-R460**	7.0/7.5L V-8 Engine	Red	45° Boot
M-12259-M460**	7.0/7.5L V-8 Engine	Black	45° Boot
M-12259-C302**	V-6 & V-8 Universal	Blue	45° Boot
M-12259-R302**	V-6 & V-8 Universal	Red	45° Boot
M-12259-M302**	V-6 & V-8 Universal	Black	45° Boot
M-12259-C462**	4.6L 2V Mustang	Blue	45° Long Boot
M-12259-R462**	4.6L 2V Mustang	Red	45° Long Boot
M-12259-C464**	4.6L 4V Mustang	Blue	45° Long Boot
M-12259-R464**	4.6L 4V Mustang	Red	45° Long Boot
M-12259-T462**	4.6L 2V F-150 Truck	Blue	45° Long Boot
M-12259-RZ2** 2	2.0L Escort ZX2/Cougar	Red	45° Long Boot
M-12259-YZ2** 2	2.0L Escort ZX2/Cougar	Yellow	45° Long Boot
M-12259-Z2** ②	2.0L Escort ZX2/Cougar	Blue	45° Long Boot
M-12259-FR2** 2	2.0L Focus ZX3/Escape	Blue	45° Long Boot
M-12259-RF2** 2	2.0L Focus ZX3/Escape	Red	45° Long Boot
M-12259-YF2** 2	2.0L Focus ZX3/Escape	Yellow	45° Long Boot
M-12259-C625** ①	2.5L V-6 Cougar/Contour	Blue	45° Long Boot
M-12259-R625** ①	2.5L V-6 Cougar/Contour	Red	45° Long Boot
M-12259-Y625** ①	2.5L V-6 Cougar/Contour	Yellow	45° Long Boot
M-12259-C380**	3.8L Mustang 2001-04	Blue	115°
M-12259-C630**	3.0L 4V Taurus 2001-03	Blue	Straight
M-12259-C634**	3.0L 4V Taurus 1996-99	Blue	Straight
M-12259-C725**	2.5L V-6 Cougar 2000	Blue	Straight
M-12259-R630**	3.0L 4V Taurus 2001-03	Red	Straight
M-12259-R634**	3.0L 4V Taurus 1996-99	Red	Straight
M-12259-R725**	2.5L V-6 Cougar 2000	Red	Straight

#### NOTES:

Universal sets can be cut to length with a crimping tool. Includes terminals for post and socket type coils, plus easy to follow instructions.

Wire sets M-12259-C301/R301/M301/Y301/C302/R302/M302 do not fit distributorless ignition system (DIS) 5.0L/302 Explorer engines. The universal 4-, 6-, and 8-cylinder wire sets do not fit distributorless ignition system (DIS).

① Fit 1998-99 only. 2000-02 will not fit. ② ZETEC Only



ENGINE

# ENGINE COMPONENTS

## **DISTRIBUTOR GEARS**

PART NUMBER	MATERIAL	COLOR	DIAMETER OUTSIDE	INSIDE	APPLICATION
M-12390-A	Cast Iron	Orange	1.249"	0.467"	289/302 hydraulic flat tappet engines with point-type or Duraspark distributors. ①
M-12390-B	Steel	None	1.249"	0.467"	302 with steel billet and production roller camshaft with point-type or Duraspark distributors. $\ensuremath{\mathbb{O}}$
M-12390-C	Bronze	Bronze	1.249"	0.467"	All 289/302 engines with point-type or Duraspark distributors. ${ m ar O}$
M-12390-D	Cast Iron	Blue	1.249"	0.531"	All 302 hydraulic flat tappet engines with EFI. All 351W engines. ${f 0}$
М-12390-Е	Bronze	Bronze with Blue Stripe	1.249"	0.531"	All 302 hydraulic (flat or roller) tappet engines with EFI. All 351W engines. $\ensuremath{\mathbb{T}}$
M-12390-F	Steel	Yellow	1.249"	0.531"	All 302/351W hydraulic roller tappet engines with EFI and 351W Duraspark distributors. ${\rm \textcircled{O}}$
M-12390-G	Cast Iron	Green	1.421"	0.531"	All 351C/351M/400/429/460 engines. ①
М-12390-Н	Bronze	Bronze with Green Stripe	1.421"	0.531"	All 351C/351M/400/429/460 engines. ①
M-12390-J	Steel	None	1.421"	0.531"	All 351C/351M/400/429/460 engines. ①

М-12390-Е

#### **MATERIAL SELECTION NOTES:**

- Cast iron gears are compatible with cast iron camshafts (hydraulic or solid flat tappet type).
- Steel gears are compatible with billet steel camshafts (hydraulic roller tappet type).
- Bronze gears can be used with either cast iron or billet steel camshafts. They are usually recommended by manufacturers of aftermarket billet steel solid roller tappet camshafts. Since the bronze is softer than cast iron or steel, it will wear at a faster rate.

#### **IMPORTANT INSTALLATION NOTE:**

① Some of the distributor gears come with a predrilled pilot hole. The pre-drilled pilot hole is not intended to line up with the original randomly drilled hole and achieve correct gear installed height. See instructions included with part, call the Tech "Hot Line" (586) 468-1356 for a faxed copy, or visit fordracingparts.com.

M-12390-J



M-12390-D



#### **POLYMER DISTRIBUTOR GEAR** FOR 289/302 M-12390-K

- For "Extreme Duty" race engines
- · Excellent wear characteristics
- · Can be used with billet or cast camshafts
- · Fits 302 distributors with .467" diameter shaft



**POLYMER DISTRIBUTOR GEAR FOR 351W** M-12390-L

- For "Extreme Duty" race engines
- Excellent wear characteristics
- Can be used with billet or cast camshafts
- · Fits 302 and 351W distributors with .531" diameter shaft





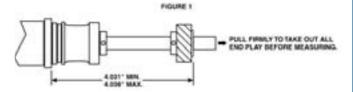
## **DISTRIBUTOR GEAR INSTALLATION**

The following information covers the installation of a new distributor gear onto an existing distributor. When replacing the distributor gear, it is important that you choose the appropriate gear for your application. If you have questions regarding your gear selection, please contact the Ford Racing Tech "Hot Line" at (586) 468-1356. Failure to use the correct gear will lead to premature gear failure. Premature gear failure may also be attributed to improper meshing of the gear teeth between the camshaft and distributor. For that reason, we recommend that you install a new distributor gear when installing a new camshaft.

#### **INSTALLATION INSTRUCTIONS:**

- **STEP 1:** Remove roll pin from distributor gear and shaft. Save pin for re-assembly.
- **STEP 2:** Verify that the shaft endplay is .024" to .035". Modify collar if necessary. Some aftermarket distributors may be constructed in a manner that does not allow you to achieve .024" to .035" of endplay. See "Alternative method of verifying correct distributor gear installation" if your distributor does not have .024" to .035" endplay.
- STEP 3: Press original distributor gear off shaft.
- **STEP 4:** Mark location of original roll pinhole on the shaft by drawing a vertical line along the shaft that intersects the hole. Measure from the centerline of the roll pinhole to a fixed point above it. Note that dimension.
- **STEP 5:** Press new distributor gear onto shaft. NOTE: Replacement distributor gear does not have roll pinhole.
- **STEP 6:** Pull distributor shaft out of distributor housing to eliminate endplay (see Figure 1).
- **STEP 7:** Check location of distributor gear on distributor shaft (see Figure 1). If it is not in the correct location, use a press to move the gear to the correct location.
- STEP 8: Using the vertical line on the distributor shaft and the noted dimension (see step #4), roughly plot where the original roll pinhole is located. Drill a new .125" hole 90° from the original hole, above or below it, through the gear and the shaft.
  NOTE: It is important that the dimensions called out in Figure 1 are maintained while drilling.
- **STEP 9:** Insert roll pin and check dimensions (see Figure 1).

**WARNING:** If the distributor gear is installed incorrectly, it may be forced down against the support in the block or may be held up away from the support in the block. Both conditions will cause damage to the block and or the block and gears. When the gear is properly installed, the cut on the gears and the direction of rotation will pull the distributor gear down against the support (distributor gear thrust face) in the block.



## ALTERNATIVE METHOD OF VERIFYING CORRECT DISTRIBUTOR GEAR INSTALLATION:

After **STEP 7**, install distributor assembly in the block you are using. Timing chain set and camshaft must be removed. With the aluminum distributor housing fully seated against the block, verify that the distributor gear can be lifted off the support in the block at least .005". Next pull the distributor gear down against the support in the block and hold it there. Pull up on the aluminum distributor housing and verify that you can lift it up at least .005" while holding the gear against the support in the block. This procedure will confirm that the gear is not being forced down against the support and not being held up off the support in the block.

Continue with STEP 8

#### **COMMON DISTRIBUTOR PROBLEMS:**

Distributors with very little or no shaft endplay. This has been found with new and remanufactured distributors. Improper endplay may force the gear against the support in the block or hold it up off the support, causing damage.

Distributors that have a different material gear then advertised. It is important to run the correct distributor gear for the camshaft that you are using. Consult the manufacturer of the camshaft you are using for gear recommendation.

Some heavy-duty oil pump drive shafts may not allow a EFI distributor to slide down far enough over the oil pump drive shaft. EFI distributors have a longer shaft below the gear.

Running a HV oil pump with production bearing clearances can cause abnormally high oil pressure and possible premature distributor gear wear.

Gears on camshafts with a very poor finish. This could cause premature distributor gear wear.

New and remanufactured distributors with the gear installed at the wrong height.

## **GT-40 PARTS**

## **POWER TO PASS THE COMPETITION...**

### PERFORMANCE POWER PACKAGE FOR YOUR 1989-93 5.0L MUSTANG, **305 HORSEPOWER**

Now you can experience the thrill of improved performance.

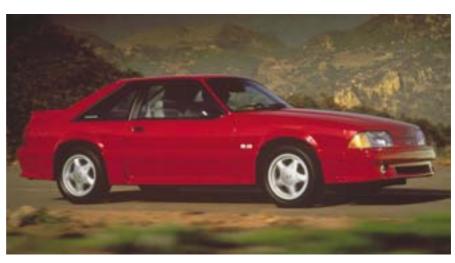
Ford Racing's GT-40 parts, dyno tested at 305 Bhp, gives you increased horsepower over production 5.0L HO Mustang engines.

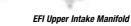
Ford Racing recommends these GT-40 parts be installed on 1989-93 model 5.0L Mustangs with mass-air electronic fuel injection and T-5 manual transmission for best results.

#### 1989-93 GT-40 PARTS LIST (Sold separately)

(	
PART NUMBER	COMPONENT
M-6049-Y303*	GT-40 Cylinder Heads and GT-40 Valve Train Kit
M-9474-A50*	Throttle Body EGR Spacer
M-9407-C50*	EFI Electric Fuel Pump
M-9430-P50*	Shorty Headers (S.S.)
M-9430-P51*	Shorty Headers (C.C.)
M-8509-A50*	Underdrive Pulleys
M-7003-Z* M-6564-B351**	T-5 Manual Transmission Roller Rocker Arm (1.60:1 ratio)

NOTE: 65mm Throttle Body required







Throttle Body EGR Spacer



GT-40 Cylinder Heads

EFI Lower Intake Manifold



Roller Rocker Arm (1.60:1 ratio)



Shorty Headers (Stainless Steel)

T-5 Manual Transmission



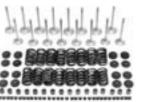


Serpentine Belt Horsepower Pulley Kit









GT-40 Valve Train Kit



Team Ford Racing, the first inner circle of fans ever assembled by an auto manufacturer, provides what you can't get anywhere else.

- Online, real-time inside access
- Exclusive Team Ford Racing merchandise
- · Exclusive access to team events
- Crew member offers
- Much, much more

For more information on joining, see the Team Ford Racing ad on page 122 of this catalog.





## TURN YOUR MUSTANG INTO A STALLION... AND GALLOP PAST THE COMPETITION

### FOR YOUR 1994-95 5.0L MUSTANG, 290 HORSEPOWER

A 1994 or 1995 Mustang GT comes equipped with a 215 horsepower 5.0L, which is great performance for the street. But what if you want to move up a bracket or two when you ride up to your local drag strip on the weekend? You could select from the wide variety of high-performance parts offered by Ford Racing for your 5.0L Mustang. Of course, this takes a certain amount of knowledge about what parts work best together.

Or, you could let Ford Racing engineers remove all the guesswork.

We carefully selected a group of components that will turn your production Mustang into a "Wild Stallion." It's what we call a Ford Racing GT-40 Mustang. Just install the parts listed below to your 1994-95 production 5.0L, 5-speed Mustang, and you'll have instant 290 horsepower! (SAE J1349 gross horsepower.)

Applicable to 5-speed only.

#### FORD RACING GT-40 1994-95 MUSTANG PARTS LIST

(Sold separately)

PART NUMBER	DESCRIPTION
M-6049-Y303*	GT-40 Aluminum Cylinder Head assembled (each)
M-9926-B50*	65mm Throttle Body
M-9927-A50*	Inlet Adapter
M-9430-N95	Shorty Headers (stainless steel)
M-6564-A50*	Roller Rocker Arms (1.70:1 ratio)
M-20201-A51	Strut Tower Brace
M-4209-G355M*	Ring and Pinion Gear Set (3.55.1 ratio)
M-6002-A50	Intake Bolt Kit











EFI Lower Intake Manifold

EFI Upper Intake Manifold

65mm Throttle Body



GT-40 Cylinder Heads



Shorty Headers (Stainless Steel)





Inlet Adapter



Roller Rocker Arm (1.70:1 ratio)



**Ring Gear and Pinion Set** 

## ELECTRONIC FUEL INJECTION

## COBRA EFI INTAKE MANIFOLD "REPLICA"

#### M-9424-Z51P

- Replica of the production 1993 Cobra intake manifold
- Airflow is good up to 350+ horsepower
- · Kit includes upper intake manifold and lower intake manifold
- Fits 1986-93 5.0L Mustangs
- Polished version of the M-9424-Z51

#### A" COBRA EFI INTAKE MANIFOLD "REPLICA" M-9424-Z51\*

- Replica of the production 1993 Cobra intake manifold
- Airflow is good up to 350+ horsepower
  - Kit includes upper intake manifold and lower intake manifold
  - Fits 1986-93 5.0L Mustangs





- Off-road use only
- No provisions for 1986-93 EGR
- Number three runner drilled and tapped for air charge sensor
- · Lower manifold only



## **HI-FLOW 70MM THROTTLE BODY**

M-9926-D462\* 1996-03 Mustang

- Bolts to stock intake manifold
- Significant power increase



#### EFI HI-FLOW THROTTLE BODY M-9926-B50\* 1994-95 Mustang

This hi-flow throttle body is a replacement for the production throttle body used on 1994-95 Mustangs. Requires no changes to cables, wiring, connectors or other components.

 Includes throttle position sensor and ISC



Did you know...

The 1986-95 HO 302 Mustangs use a 19-pound injector. The 1996-03 4.6 SOHC Mustangs use a 19-pound injector. The 1993-95 Cobra Mustangs use a 24-pound injector. The 1996-01 Cobra Mustangs use a 24-pound injector. The 2003 Cobra Mustangs use a 39-pound injector.

#### Did you know...

You can identify GT-40 cast iron heads by the 3 vertical ribs cast in the ends of the cylinder head. GT-40P heads have 4 vertical ribs.

Did you know...

The first year of a hydraulic roller cam in a 302 was 1985.



#### INLET ADAPTER (1994-95 MUSTANG) M-9927-A50\*

This adapter allows use of GT-40 EFI manifolds on 1994-95 Mustangs. Must be used with the new M-9926-B50 throttle body. Installation of GT-40 EFI manifolds requires minor modification to the hood blanket, and use of Ford Racing strut tower brace kit M-20201-A51 (see page 147).

#### EFI HI-FLOW EGR SPACER M-9474-A50\*

This EGR spacer has been machined to a 67mm bore diameter to be compatible with the Ford Racing 65mm throttle body. Can be used with either production or Ford Racing EFI manifolds. Requires minor modification to production upper intake manifold to achieve optimum results.



#### EFI THROTTLE BODY-TO-EGR SPACER GASKET

M-9933-A50\* 1986-93 Mustang M-9933-B50\*\* 1994-95 Mustang This gasket is manufactured with a 67mm bore diameter to accommodate the Ford Racing 65mm throttle body and EGR spacer. Fits between the throttle body and spacer.



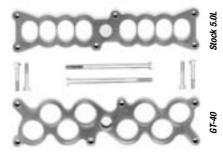
## EFI HEAT SPACER

M-9486-A51\* M-9486-A52\* M-9486-A53\*



GT-40 Manifold - .5" GT-40 Manifold - 1" thick for clearance with M-6582-E302 Valve Covers juality, made in the USA\_CM

New and improved quality, made in the USA. CNC machined from Westinghouse. Type C phenolic material fits between the upper and lower manifolds to help dissipate heat and significantly increase performance. Includes longer bolts.



#### EFI UPPER-TO-LOWER INTAKE MANIFOLD GASKET M-9486-A50\*

This gasket is required to assemble the Ford Racing upper intake manifold (M-9424-A51 or M-9424-D51) to the lower intake manifold (M-9461-A50 or M-9461-A58).



#### EGR SPACER-TO-INTAKE MANIFOLD GASKET M-9464-A50\*

This gasket is manufactured with a larger 70mm bore diameter to accommodate the Ford Racing 65mm throttle body and EGR spacer. Fits between EGR spacer and intake manifold. If you have ever tried to modify the production gasket to fit a larger spacer, you will truly appreciate these pieces. Also use with M-9927-A50 adapter.



EFI MUSTANG FUEL PUMP

**M-9407-C50\*** (190 liters/hr.) 1986-97 This high-flow, fuel tank mounted fuel pump eliminates top-end fuel starvation on modified 5.0L EFI HO engines. Production flow rates of 88 liters/hr. (1988-93, 1994 and up 110 liters/hr.) will be increased to a whopping 190 liters/hr. @ 40 psi with M-9407-C50.

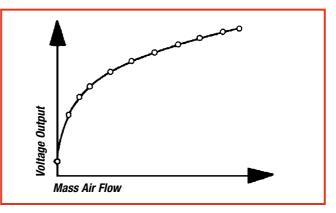


## ELECTRONIC FUEL INJECTION "SPEED DENSITY" VS. "MASS-AIR" COMPARISON

Computerized electronic engine controls and fuel injection make it more difficult to improve engine performance. More sophisticated approaches are required—such as Ford Racing's "Mass Air Conversion Kit" for Mustang 5.0L HO engines with manual transmission. Here is a brief review of key factors:

Remembering that engines are basically air pumps, the basic problem for an EEC-IV computer is to determine airflow for any given throttle angle and engine RPM, so it can signal appropriate fuel flow to mix with the air.

The 5.0L HO uses two types of fuel control. 1986-87 and 1988 49-State vehicles use a SPEED DENSITY system—in which airflow is inferred from several sensors, including measurements of engine speed, manifold pressure and air charge temperature, along with an approximation of the engine's pumping characteristics. The 1988 Calif. and all 1989-95 models use a MASS-AIR system—in which airflow is measured directly with an air meter. A "hot wire" sensing element in the air intake provides an output voltage reading that is proportional to the mass of air flowing into the engine. The mass air system reduces the calculations required to control fuel flow and ignition spark advance—while providing the versatility required for performance modifications affecting airflow and manifold vacuum. It reacts faster and more accurately to changes in airflow, and improves idle quality and overall vehicle performance.



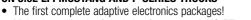
## ELECTRONIC FUEL INJECTION

## FORD RACING MASS-AIR CONVERSION KITS

PART NUMBER	YEAR/VEHICLE/ENGINE	TRANS
M-9000-A51*	1986-88 ① Mustang 5.0L HO EFI only	Manual
M-9000-B50*	1986-88 ① Mustang 5.0L HO EFI only	Automatic
M-9000-T50*	1987-93 F-Series 5.0L/5.8L EFI Truck only	
	(Will not fit Lightning)	Manual
M-9000-T51*	1987-93 F-Series 5.0L/5.8L EFI Truck only	
	(Will not fit Lightning)	Automatic—AOD only

NOTE: 1988 California and all 1989-5.0L Mustang Models are equipped with mass air system.

#### HERE IS THE EASY WAY TO IMPROVE PERFORMANCE **ON 5.0L EFI MUSTANG AND F-SERIES TRUCKS**



• Make these kits the foundation for your 5.0L HO EFI performance improvement project!

## MASS-AIR CONVERSION KIT FEATURES:

- · Converts production "speed density" system to "mass airflow" system, which directly measures engine airflow and supports engine modifications.
- Continues good vehicle drivability when you improve performance by installing Ford Racing equipment such as camshafts, aluminum or high-flow cast iron cylinder heads, intake manifolds, headers or dual exhaust systems, axle ratios and other changes.
- The EEC-IV microprocessors in these kits are programmed to provide appropriate fuel flow and spark advance for stock and modified engines
- The mass air conversion kits for truck models include special overlay wire harness that converts production "bank-to-bank" injector pulses to "sequential port" injection for improved fuel distribution. Production Mustangs already use sequential injection.

## COMPUTER AND MASS-AIR **METER KIT**

M-12071-F302\* Manual Transmission M-12071-G302\* Auto Transmission This mass-air flow computer system operates with performance engine assemblies and stock high-output engines. Use with aftermarket standalone wire harness or aftermarket Mustang mass-air conversion wire harness, sold separately. Kit includes the EEC IV computer, mass-air meter, inlet and outlet hoses.



#### LIGHTNING MASS **AIR METER** M-12579-L54\*\*

- Stock replacement 90mm 2001-04 F-150 Lightning Mass Air Meter
- Requires recalibration for use on other vehicles

#### **SENSOR AND RELAY** PACKAGE M-12071-K302\*

Package includes all of the following sensors necessary to use the M-12071-C302 wiring harness: dual-oxygen sensors, EGR solenoid, TAD and TAB solenoids; fuel, air-conditioning, and EEC power relays. Engine-mounted and BAP sensors NOT included.



#### **ALTERNATOR HARNESS** M-14305-A351\*

Used to aid installation of 2-wire hook up of 1994-95 5.0L Mustang 130 amp alternators in custom vehicles.



## SPEED SENSOR CONNECTOR M-12071-J302<sup>3</sup>

This connector is needed to connect the transmission speed sensor to the main harness.

Mustang Kit shown

- · EEC-IV mass air processor module assembly
- EEC-IV jumper wire harness
- Mass airflow sensor, hoses, clamps and brackets
- Easy-to-follow instructions

## **F-SERIES TRUCK KIT INCLUDES:**

- · EEC-IV mass air processor module assembly
- EEC-IV jumper wire harness with SEFI engine overlay
- Mass airflow sensor with air box lid, hoses and clamps to adapt to the truck air induction system
- Easy-to-follow instructions



Ford RACING PERFORMANCE PARTS

EV1 shown

EV6 shown

## **HIGH-FLOW RATE FUEL INJECTOR SETS**

Kit contains high-flow rate fuel injectors, specially designed for race applications. These injectors work best with air meters with revised calibrations. Not recommended for stock air meters.

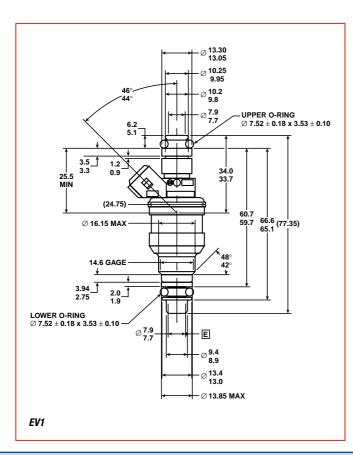
PART NUMBER (SETS OF 8)	PART NUMBER (SETS OF 4)	FLOW RATE	INJECTOR TYPE	IMPEDANCE
M-9593-A302*	M-9593-A304*	24 lbs./hr.	EV1	11-18 ohms
M-9593-AA302*	N/A	24 lbs./hr.	EV6 with EV1 Connector	11-18 ohms
M-9593-B302*	M-9593-B304*	30 lbs./hr.	EV1	11-18 ohms
M-9593-C302*	M-9593-C304*	19 lbs./hr.	EV1	11-18 ohms
M-9593-F302*	M-9593-F304*	42 lbs./hr.	EV1	11-18 ohms
M-9593-E303*	M-9593-E304*	150 lbs./hr.	EV1	4-6 ohms
M-9593-M23*	M-9593-M234*	23 lbs./hr.	EV6	11-18 ohms
M-9593-M31*	N/A	30 lbs./hr.	EV6 with EV1 Connector	11-18 ohms
M-9593-M39*	M-9593-M394*	39 lbs./hr.	EV6	11-18 ohms
M-9593-T46*	N/A	34 lbs./hr.	EV6 with EVI Connector	11-18 ohms

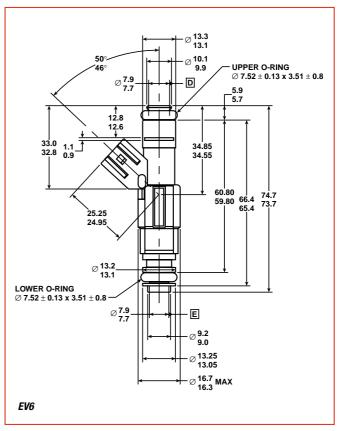
## **HIGH-FLOW MATCHED FUEL INJECTOR SETS**

Ford Racing has flowed a large quantity of injectors, and sorted and matched injectors with similar flow rates. These injectors are then packaged in sets. The end result is fuel injector sets with very small variations in flow. Typical production injectors can vary as much as 6-7%. These kits vary less than 1%, but typically vary less than .5%. The result is improved fuel control and optimized performance, drivability and economy. These injectors are attractively priced and cannot be duplicated for the price.

PART NUMBER (SETS OF 8)	PART NUMBER (SETS OF 4)	FLOW RATE	INJECTOR TYPE	IMPEDANCE
M-9593-A302F*	M-9593-A304F*	24 lbs./hr.	EV1	11-18 ohms
M-9593-B302F*	M-9593-B304F*	30 lbs./hr.	EV1	11-18 ohms
M-9593-F302F*	M-9593-F304F*	42 lbs./hr.	EV1	11-18 ohms
M-9593-M23F*	M-9593-M234F*	23 lbs./hr.	EV6	11-18 ohms
M-9593-M39F*	M-9593-M394F*	39 lbs./hr.	EV6	11-18 ohms

NOTE: These injectors are flowed at 40-psi differential pressure, and a flow data summary is included in the package.







## **SUPERCHARGERS**

#### BOOST THE HORSEPOWER OF YOUR 5.0L MUSTANG WITH A FORD RACING SUPERCHARGER KIT

PART NUMBER	BOOST	FINISH	APPLICATION	
M-6066-A50	6 psi 🛈	Satin	1986-93 Except Cobra	LOW PRICE
M-6066-A51*	9 psi (1)@	Satin	1986-93 Except Cobra	AMAZINGE LOW PRICE
M-6066-B50	6 psi 1)3	Satin	1994-95 Except Cobra	

#### NOTES:

- ① Nominal boost value. Pressure may vary depending on inlet restrictions, outlet restrictions and ambient temperature.
- <sup>(2)</sup> Ford Racing fuel pump M-9407-C50 (see page 113) recommended.
- ③ Does not fit convertible

## SUPERCHARGING...THE EASY WAY TO MAKE MORE HORSEPOWER!

Ford Racing's supercharger kits are highly refined units. They are among the most efficient superchargers and offer many technical features not found in other centrifugal superchargers.

#### FORD RACING SUPERCHARGER FEATURES:

- More Power—Extremely efficient compressor reduces outlet temperature for cooler operation, resulting in more mass airflow and greater power. Unique curved-tip impeller produces more low end torque than conventional straight blade impeller. There is better mid-range power and unbelievable top end performance.
- Quieter Operation—Internal cogged-belt drive eliminates noisy and heat-transferring gears and balls.
- Cooler Running—Ultra high-speed aerospace ceramic bearings require no lubrication. Eliminates heat transferring oil and the need to plumb engine oil to the supercharger. Lower supercharger temperatures mean more power and longer life.
- Easy Installation—Without the need to plumb engine oil to the supercharger, installation is vastly simplified. Ford Racing supercharger kits fit completely under the hood and interface with all stock components. Everything you need to complete the installation is included (all brackets, hoses, clamps, nuts, bolts and even tie wraps) plus very thorough instructions. Approximate installation time is 6-7 hours.
- **50-States "Street Legal" (E.O. #D-308-2)** Ford Racing's 6 lb. supercharger kits are "street legal" and can be installed on any 1986-95 5.0L Mustang. Daily drivability is unaffected. Your car will operate as smoothly and as reliably as it did in stock form.

Need Ford technical information on Performance Parts?

Call the Tech "Hot Line" (586) 468-1356 or visit our website at www.fordracingparts.com



#### "MUSTANG MUSCLE" INSTALLATION (E.O. #D-308-2):

Here's a typical installation with polished compressor shown. This 6 lb. Ford Racing supercharger kit (and most other Ford Racing 6 psi units) is "street legal" in all 50 states. It's a great installation for enthusiasts looking for a substantial horsepower increase and instant "Mustang Muscle."



#### FOR RACE TRACKS:

Ford Racing offers 9 lb. supercharger kits for 5.0L competition on race tracks. They provide the ultimate in power (up to 35-45% increase over production) from a centrifugal supercharger.

#### CYLINDER HEAD GASKET RECOMMENDATIONS:

High-performance 5.0L gasket kit M-6051-A50 is recommended with the above superchargers. This gasket kit has been designed for the more demanding sealing requirements and includes 2 expanded graphite cylinder head gaskets, 2 high-tech metal O-ring rocker cover gaskets and new torque-to-yield cylinder head bolts.

## FORD RACING TRUCK SUPERCHARGER KIT

M-6066-T51 12 1993-95 5.8L Lightning (6psi only)

M-6066-E50\* 1996-97 5.0L Explorer (6psi only)

M-6066-E51\* M-6066-E52\*

- 1998 5.0L Explorer (6psi only)
- E52\* 1999-01 5.0L Explorer (6psi only)
- More power, up to 30% increase over production
- Internal belt drive, operates very quietly
- Aerospace ceramic bearings—requires no lubrication
- Bolt-on design, complete kit ready to install
- · No oil lines to hook up
- Minimum 110 liters/hr. electric fuel pump recommended

#### SUPERCHARGING...THE EASY WAY TO MAKE MORE HORSEPOWER!

Ford's supercharger kits are highly refined units—the best overall design currently available. They are among the most efficient superchargers and offer many technical features not found in other centrifugal superchargers.

#### NOTES:

- ① 50 states "Street Legal" E.O. D-308-2
- ② Fits manual trans, E40D. A0D requires shift M-7101-F not included. Will not work with A0DE

#### CYLINDER HEAD GASKET RECOMMENDATIONS:

High-performance 5.0L gasket kit M-6051-A50 is recommended with the above superchargers. This gasket kit has been designed for the more demanding sealing requirements and includes 2 expanded graphite cylinder head gaskets, 2 high-tech metal O-ring rocker cover gaskets and new torque-to-yield cylinder head bolts.

# ENGINE DRESS-UP COMPONENTS



## **CUSTOM VALVE COVERS**

Give your Ford that fast, furious look with custom-designed Ford Racing valve covers. All are baffled, and you can choose from a variety of finishes and distinctive logos. "Tall" Ford Racing valve covers M-6582-E302P/R302/T351/Z351/R351/C460/R460 are designed to clear roller rocker arms and polylock nuts. None of the other valve covers can be used with roller rockers without modifications. None of the valve covers on pages 117 and 119 can be used on engines with electronic fuel injection, except M-6582-D302. See page 118 for EFI valve covers.



Most of the valve covers on pages 117-119 are "50 States Street Legal" when installed with appropriate closed PCV hardware (included in package).





**BLACK SATIN VALVE COVERS** M-6582-B301\*\* For 289/302/351W



**VALVE COVERS** 



**VALVE COVERS** 



**POLISHED ALUMINUM VALVE COVERS** 

For 289/351W (Original open letter Cobra)



**POLISHED ALUMINUM VALVE COVERS** 

M-6582-E302P\* 3.75" Tall with black letters

**CHROME ALUMINUM VALVE COVERS** 

M-6582-R302\*

3-3/4" Tall with black letters

For 289/302/351W (Will clear stud girdle and roller rocker arms)



**CHROME STAMPED STEEL VALVE COVERS** M-6582-B303R\*\*

For 289/302/351W



BLACK VALVE COVERS M-6582-L302\* 3.75" Tall For 302/351W with red letters



**CHROME (DIE CAST) VALVE COVERS** 



# ENGINE DRESS-UP COMPONENTS

## **EFI VALVE COVERS**

You can choose from a unique selection of Ford Racing valve covers, specially designed to provide clearance for EFI intake manifolds. None of the other valve covers can be used with roller rockers without modifications. M-6582-D302 for 5.0L/302 EFI engines consists of a pair of valve covers only, featuring a lustrous chrome finish. The valve covers are available in either black satin or polished aluminum, and include a pair of valve covers and an oil filler cap.

You can equip your 5.0L/302 EFI engine with three different styles ("Cobra," "Mustang" or "Ford Racing"). Only one style ("Ford Motorsport") is available for the 5.0L/302 EFI and 5.8L/351 EFI truck engine.

You can purchase EFI manifold covers for production and Ford Racing EFI manifolds. The chrome valve cover hold-downs provide more uniform clamping loads, and can be used with either EFI or non-EFI valve covers.





### **BLACK SATIN VALVE COVERS** M-6582-A341R\*\*

For 302 BOSS/351C/351M/400



#### **POLISHED ALUMINUM VALVE COVERS** M-6582-A342R\*\*

For 302 BOSS/351C/351M/400



#### **CHROME STAMPED STEEL VALVE COVERS** M-6582-C351R\*\*

For 302 BOSS/351C/351M/400



## CHROME STAMPED STEEL **VALVE COVERS**

M-6582-A390R\*\* For 352/360/390/427/428



POLISHED ALUMINUM **VALVE COVERS** M-6582-A427\*\*

For 352/360/390/427/428



**CHROME STAMPED STEEL VALVE COVERS** M-6582-A429R\*\*

For 429/460



#### POLISHED ALUMINUM VALVE COVERS

M-6582-Z351\* 4" Tall For 302 BOSS/351C/351M/400 with new logo (Will clear stud girdle and roller rocker arms)

#### **CHROME ALUMINUM** VALVE COVERS

M-6582-R351\* 4" Tall For 302 BOSS/351C/351M/400 with new logo (Will clear stud girdle and roller rocker arms)



## **POLISHED ALUMINUM** VALVE COVERS

M-6582-C460\* 4.5" Tall For 429/460 with new logo (Will clear stud girdle and roller rocker arm)

#### **CHROME ALUMINUM** VALVE COVERS

M-6582-R460\* 4.5" Tall For 429/460 with new logo (Will clear stud girdle and roller rocker arm)



#### ENGINE DRESS-UP KIT M-6000-A302R\*\*

For 289/302/352W Windsor carbureted engines only with Ford Racing logo

#### **BLACK SATIN** VALVE COVERS

M-6582-B\*\* For 352/360/390/427/428



#### **OVAL TRACK VALVE COVERS** M-6582-G302\*

Low cost stamped steel valve covers with integral, tall baffled, breather tubes for Oval Track use. Breather tubes accept K&N breathers. Recommended for claimer series 302/351W engines with Windsor-style cylinder heads. Will not fit M-6049-Z304 heads.





## **ENGINE DRESS-UP COMPONENTS**





ENGINE COMPONENTS

Show off your engine compartment with this dazzling, head-turning collection of Ford Racing accessories. Many are unique items. All give your car a personal touch.





# SHELBY COBRA GT-500

## SVT SHELBY COBRA GT-500

The new SVT Shelby GT500 will be hitting showrooms mid-2006. As the most powerful Mustang ever, it proves to set new standards in performance. Of course, FRPP knows that enough is never really enough when it comes to horsepower. Expect to see performance parts for the GT500 that will turn your snake into a venomous King Cobra.

For owners of other 2005/2006 Mustangs, there will be plenty of parts from the GT500 to put a little SVT into your GT. Stay tuned to www.fordracingparts.com for updates and exciting new parts for all new Mustangs, including GT500!



THE ULTIMATE



EXCLUSIVE TFR MEMBER BENEFITS INCLUDE:

ERFORMANCE PART

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Inside Access to Events, Drivers & Crews

Embroidered Hat, ID Card, Certificate, Decals

122 Tech "Hot Line" (586) 468-1356

# ENGINE COMPONENTS



#### FORD RACING PERFORMANCE AIR FILTERS

- · Multi-layer high-performance air filter traps more dirt and has less restriction than traditional paper filter
- Filter is cleanable and reusable
- Same filters as used in Ford Racing cold air induction kits

PART NUMBER	DESCRIPTION			
M-9601-F04	2004-06 F-150 (not 2004 Heritage)			
M-9601-F730	1999-06 F-250/350 7.3L Diesel			
M-9601-F877	987-97 F-150 with 4.9/5.0/5.8/7.5L			
M-9601-G132	13" x 3" Round. Can be used with M-9600-A302/L302/M302 air cleaner assemblies			
M-9601-G142	14" x 2" Round Air Cleaner			
M-9601-L540	1999-00 F-150 Lightning			
M-9601-L541	2001-04 F-150 Lightning/Harley			
M-9601-M05	2005-06 Mustang			
M-9601-M302	1967-73 V8 Mustang 2/4 Barrel and 1968-87 F-150			
M-9601-M380	1994-04 3.8L Mustang and Lincoln Blackwood			
M-9601-M46	1996-04 4.6L Mustang, All F-Series with 4.2L V-6, & 4.6/5.4L V-8			
M-9601-M863	1987-93 Mustang 5.0L			
M-9601-R885	1988-95 Ranger, All Engines			
M-9601-R984	1998-04 Ranger, All Engines			
M-9601-Z200	Escort ZX2, All 1995-97 Ranger			

Round M-9601-G132



## WINDSTOP

#### M-16602-A

- Helps reduce wind noise for the driver and front seat passenger
- Aids the efficiency of the heating and A/C systems
- Constructed of lightweight materials
- Will not interfere with the operation of the convertible top
- Fits 1999-04 Mustang convertible
- Folds to fit in trunk (case included)
- Prevents your hair from being windblown



ENGINE

## ENGINE DRESS-UP COMPONENTS



## SHIFTERS



## **B&M "RIPPER" SHIFTER**

- M-7210-L 1979-02 Mustang
- Fits T-5 and T-45 transmission. Does not fit Tremec 3650 transmission found in 2001-02 Cobras, Bullitts and some GT Mustangs (3650 transmission has the drain plug in the bottom of the case)
- Billet aluminum turret housing
- Short throws, quick shifts
- Positive stops to prevent over-travel Investment cast 17-4 stainless steel
- bolt-on stick for maximum strength · Adjustable gate springs
- Supplied with new lower boot ٠
- Uses stock knob (not included)

#### 1979-02 MUSTANG HURST T5/T45 SHIFTER M-7210-M

- Fits T-5 and T-45 transmission. Does not fit Tremec 3650 transmission, 2001 and newer Mustang Cobra, Mustang Bullitt, and Mustang GT (3650 transmission has the drain plug in the bottom of the case)
- One piece 6061-T6 aluminum CNC machined base
- Positive stops to prevent over-travel
- Super short throw
- Chrome handle and white Hurst knob
- Fits 1979-95 V-8 Mustang with T-5 transmission
- Fits 1994-02 V-6 Mustang with T-5 transmission
- Fits 1996-01 V-8 Mustang with T-45 transmission

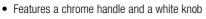


#### M-7210-N

- Fits 1983-01 Mustang with T-5 or T-45 transmission Adjustable positive stops prevent over shifting
- and damaging the transmission
- Two-position adjustable height
- Compact tower is CNC machined from billet 6061 T-6 aluminum
- Accepts stock and most aftermarket shift knobs

#### **T-56 CHROME SHIFTER** M-7210-T56

- Fits all Ford T-56 variants



## **T-5 LEATHER SHIFT BOOT** M-7277-A

This upgraded leather shift boot fits all 1983-96 Mustang vehicles equipped with T-5 transmissions, and can be adapted to others. Similar to leather boot in 1984-86 Mustang SVO.

#### **10TH ANNIVERSARY MUSTANG COBRA SHIFT BOOT** M-7277-B

- · Embossed leather, simulated carbon fiber shift boot
- Fits 1994-04 Mustangs with manual transmission
- Attaching glue not included

- Fits 1979-95 V-8 Mustang with T-5 transmission
- Fits 1994-02 V-6 Mustang with T-5 transmission
- Fits 1996-01 V-8 Mustang with T-45 transmission

#### **T-5 LEATHER SHIFT KNOB** M-7213-A

A leather shift knob similar to the unit found in the Mustang SVO, except has M12 x 1.75 thread, which is compatible with all Mustang/Capri vehicles with screw-on T-5 shift handles. NOTE: This knob will NOT fit M-7210-J/K Hurst T-5 shifter.

#### **T-56 SHIFT KNOB** M-7213-B

- Black leather shift knob with brushed aluminum insert on top. inscribed with 6-speed pattern
- Fits 2003-04 Mustang Cobra and all FRPP T-56 transmissions

#### **10TH ANNIVERSARY MUSTANG COBRA SHIFT KNOB** M-7213-C

- · Embossed leather, simulated carbon fiber shift knob with brushed aluminum insert on top, inscribed with 6-speed pattern
- · Fits 2003 Mustang Cobra and all FRPP T-56 transmissions

#### SHIFT KNOB 5-SPEED M-7213-D

- · Embossed leather, simulated carbon fiber with brushed aluminum insert on the top, inscribed with 5-speed pattern
- Fits 1983-04 Mustang with 5-speed transmissions

#### SHIFT KNOB M-7213-E

- · Embossed leather, simulated carbon fiber shift knob, no shift pattern logo
- Fits 1983-04 manual transmission Mustang with 5- or 6-speed

#### **LEATHER COBRA "R"** SHIFT KNOB M-7213-F

- · Leather shift knob used on the 2000
  - Mustang Cobra "R"
- Fits T-56 6-speed Tremec transmissions

#### SHIFT KNOB 5-SPEED M-7213-G

- Black leather shift knob with brushed aluminum insert on the top, inscribed with 5-speed pattern
- Fits 1983-04 Mustang with 5-speed transmission

#### SHIFT KNOB 5-SPEED M-7213-H

- 2003 Mustang Mach 1 production manual transmission shift knob Aluminum finish inscribed with
- 5-speed pattern Fits 1983-04 Mustang with 5-speed
- transmission















# TRANSMISSION COMPONENTS

### **UPGRADED SUPER-DUTY T-5 TRANSMISSION**

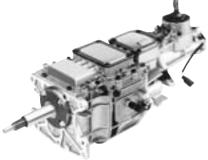
- M-7003-Z\* 1979-93 V-8 only Heavy-duty "World Class" T-5 5-speed manual transmission with short-throw shifter
- Gear ratios: 1st 2.95; 2nd 1.94; 3rd 1.34; 4th 1.00; 5th 0.63
- 330 ft./lbs. torque capacity
- Shaft length: 7.18"
- Input pilot diameter: 0.668"
- · Double-moly 2nd speed, 3rd speed and countershaft cluster gears
- Carbon-fiber 3-4 blocker rings
- Improved synchronizers and bearings
- 1.0625" diameter 10-tooth input spline
- · 28-tooth output spline
- 7-tooth speedometer drive gear
- Cobra-style pocket bearing
- Steel input bearing retainer



## **TREMEC 5-SPEED HD** TRANSMISSION

M-7003-R58W\* (Wide Batio)

- Replaces M-7003-R58
- Gear ratios: 1st 3.27; 2nd 1.98; 3rd 1.34; 4th 1.00; 5th 0.68
- · Features improved shift forks, one-piece counter shaft, gears made of 4615 steel which increases the torgue capacity over that of the M-7003-R58 model
- Input shaft is 10 spline 1.0625 and the output shaft is 31 spline
- Requires a unique bellhousing M-6392-R58 to install in a 1979-95 Mustang
- To fit in a 1979-93 Mustang use M-5059-A crossmember
- To fit in 1994-95 Mustang, modify vehicle crossmember, lengthen driveshaft .625" and use clutch fork E6ZZ-7515-A
- 31 spline driveshaft yoke required
- · Can be used in 4.6L applications with bellhousing M-6392-M46



## SERVICE REPLACEMENT PARTS

## **T-5 BEARING RETAINER**

- M-7050-A Fits 1983-93 V-8 applications
- **M-7050-B** Fits 1994-95 V-8 applications
- Replacement T-5 bearing retainer with steel throw-out bearing sleeve
- Fits production and Ford Racing T-5 transmissions

## FORD GT TRANSAXLE

#### M-7003-GT\*

- · Original equipment in the Ford GT supercar
- +600 ft./lbs. torque capacity
- Gear ratios: 1st 2.611; 2nd 1.708; 3rd 1.233; 4th .943; 5th .767; 6th .625 •
- 3.36 final drive ratio
- 200 lbs. dry weight
- 15.5" (H) x 18" (W) x 31" (L) .
- Perfect for a custom build mid engine car or kit car •
- Bolts to any V-8 modular engine
- Unique flywheel required



## **T-5 REBUILD KIT**

## M-7000-A\*

This 94-piece world class T-5 transmission rebuild kit can be used on all of the following T-5 applications:

- M-7003-A/X/Z
- 1985-95 5.0L Mustang
- 1985-93 ① 2.3L Mustang
  - 1985-86 2.3L SVO Mustang
- 2.3L Thunderbird Turbo Coupe 1985-88 ①
- 3.8L Mustang • 1994-00

#### NOTE:

① 1987-93 models will require additional input bearing and race. See your Ford Lincoln-Mercury dealer.









#### TREMEC 5-SPEED EXTRA HD TRANSMISSION M-7003-R58C\* (Close Ratio)

- 600 ft./lbs. torque capacity
- Gear ratios: 1st 2.87; 2nd 1.90; 3rd 1.34; 4th 1.00; 5th 0.82
- Features improved shift forks, one-piece counter shaft, gears made of 4615 steel which increases the torque capacity over that of the M-7003-R58 model
- Input shaft is 26 spline and output shaft is 31 spline
- Requires a unique bellhousing M-6392-R58 to install in a 1979-95 Mustang
- To fit in a 1979-93 Mustang use M-5059-A crossmember
- To fit in a 1994-95 Mustang, modify vehicle crossmember, lengthen driveshaft .625" and use clutch fork E6ZZ-7515-A
- 31 spline driveshaft yoke required
- Unique clutch disc designed for 26 spline input must be used
- Can be used in 4.6L applications with bellhousing M-6392-M46



#### TREMEC 5-SPEED EXTRA HD TRANSMISSION M-7003-R58H\*

- Close ratio 1st through 4th
- 600 lbs./ft. torque capacity
- Gear ratios: 1st 2.87; 2nd 1.90; 3rd 1.34; 4th 1.00; 5th 0.68
- Features improved shift forks, one-piece counter shaft, gears made of 4615 steel which increases the torque capacity over that of the M-7003-R58 model
- Input shaft is 26 spline; Output shaft is 31 spline
- Requires bellhousing M-6392-R58 to install in a 1979-95 Mustang
- For 1979-93 Mustang applications, use M-5059-A crossmember (79-81 will require modification)
- For 1994-95 Mustang applications, modify vehicle crossmember, lengthen driveshaft .625" and use clutch fork E6ZZ-7515-A
- 31 spline driveshaft yoke required, M-4841-A recommended
- Requires unique clutch disc M-7550-T302 (10.5") designed for use with 26 spline input
- Can be used in 4.6L applications with bellhousing M-6392-M46 and Clutch Kit M-7560-T46 (11")



## ADJUSTABLE #3 CROSSMEMBER (TRANSMISSION MOUNT)





This crossmember is a "double hump" design that simplifies installation of dual exhaust systems on "Fox" vehicles. The outer tubes are not welded to the center support, and thus can be adjusted to fit most engine/transmission combinations. It directly fits all "Fox" vehicles with a 4.5" dimension between the crossmember mounting brackets. It can be used on "Fox" vehicles with a 2.75" mounting dimension by relocating the brackets. It does not fit 1982 and later Continental or 1984 and later Mark VII, because they have a unique crossmember.

4.5" MOUN	ITING DIMENSION	2.75" M	OUNTING DIMENSION
YEAR "FOX" VEHICLE		YEAR	<b>"FOX" VEHICLE</b>
1980-88	T-Bird/Cougar	1978-81	Fairmont/Zephyr
1982-93	Mustang/Capri	1979-81	Mustang/Capri
1982	Fairmont/Zephyr	1981-82	Granada/Monarch
1983 and later	LTD/Marquis		

## TREMEC 6-SPEED HD TRASMISSIONS T-56 TRANSMISSION WITH

## ELECTRONIC SPEEDOMETER

#### M-7003-F\*

- This is the same Tremec HD 6-speed manual transmission used in the 2000 Cobra "R" and the Ford Racing FR500 Mustang
- Fits 4.6L SOHC/DOHC engines
- Can be used in 1999-04 Mustangs and Cobras
- May require shorter driveshaft, modified crossmember/transmission mount and other minor modifications
- 440 lbs./ft. torque capacity
- Gear ratios: 2.97/1st, 2.07/2nd, 1.43/3rd, 1.00/4th, .80/5th, .62/6th
- Does not have mechanical speedometer connection needed for use in earlier Mustangs
- 10 spline input, 31 spline output

#### T-56 TRANSMISSION WITH MECHANICAL SPEEDOMETER M-7003-G\*

- Has mechanical speedometer drive for 1998 and older modular engine applications
- Fits 4.6L SOHC/DOHC engines
- 440 lbs./ft. torque capacity
- Gear ratios: 2.97/1st, 2.07/2nd, 1.43/3rd, 1.00/4th, .80/5th, .62/6th
- 7-tooth speedometer gear
- 10 spline input, 31 spline output

## T-56 TRANSMISSION 5.0L

#### M-7003-H\*

- For 5.0L/5.8L engine applications
- 440 lbs./ft. torque capacity
- Gear ratios: 2.97/1st, 2.07/2nd, 1.43/3rd, 1.00/4th, .80/5th, .62/6th
- 7-tooth speedometer gear
- 10 spline input, 31 spline output

#### T-56 CROSSMEMBER M-5059-B\*

- Production crossmember from the 2003-04 Cobra Mustang
- Fits 1999-04 Mustang when changing to a T-56 6-speed transmission
- Includes transmission mount



M-7003-F shown

CHASSIS COMPONENTS

\*Not legal for sale or use on pollution-controlled motor vehicles. \*\*Direct replacement part.

## TRANSMISSION COMPONENTS



М-6375-Н46



M-6375-B460





M-6375-H302



M-6375-J302

## **AUTOMATIC TRANSMISSION FLYWHEEL**

PART NUMBER	MATERIAL	<b>RING GEAR</b>	UNBALANCE	APPLICATION
M-6375-A50	Stamped Steel	164-Tooth	50 ozin.	Fits 1981-01 5.0L engine with AOD or C-4 trans. with large bellhousing. Will not Fit C-6.
M-6375-B460	Stamped Steel	164-Tooth	24.2 ozin.	Fits 1979-97 460/514 engines with C-6 trans. With external balance.
M-6375-G302	Stamped Steel	164-Tooth	28 ozin.	Fits 289/302/351W,C,M with large bellhousing C-4 trans. and AOD.
M-6375-H302	Stamped Steel	164-Tooth	28 ozin.	Fits 289/302/351W,C,M with C-6 trans.
M-6375-J302	Stamped Steel	164-Tooth	50 ozin.	Fits 1981-01 5.0L with C-6 trans.
M-6375-H46	Stamped Steel	164-Tooth	0 Balance	Fits 4.6L/5.4L 8-bolt crankshaft with HP 11.25" 4R70W torque converter.
M-6375-E302	Stamped Steel	157-Tooth	50 ozin.	Fits 1981-01 5.0L with small bellhousing C-4 trans. 13-1/4" diameter/ 10-1/2" bolt circle.

M-6375-G302





## MANUAL TRANSMISSION FLYWHEEL

PART NUMBER	MATERIAL	<b>RING GEAR</b>	UNBALANCE	APPLICATION
M-6375-A302 13	Billet Steel	157-Tooth	28.2 ozin.	Pre-1981 302 engines and 351 engines using 157T flywheels. Meets SFI 1.1.
<b>M-6375-A302A</b> ①③	Aluminum	157-Tooth	28.2 ozin.	Pre-1981 302 engines and 351 engines using 157T flywheels. Reduced rotating mass for faster engine acceleration in race applications. Meets SFI 1.1.
<b>M-6375-B302</b> ①	Cast Iron	157-Tooth	50.0 ozin.	1981 and later 302 engines. Exact replacement for 1986-95 Mustang stock unit.
M-6375-C302	Billet Steel	157-Tooth	50.0 ozin.	1981 and later 302 engines. Meets SFI 1.1.
M-6375-C302A 13	Aluminum	157-Tooth	50.0 ozin.	1981 and later 5.0L/302 engines. Reduced rotating mass for faster engine acceleration in race applications. Meets SFI 1.1.
<b>M-6375-D302</b>	Billet Steel	157-Tooth	0 ozin.	All small blocks with 0 unbalance rotating assemblies. Meets SFI 1.1.
<b>M-6375-D302A</b> ①	Aluminum	157-Tooth	0 ozin.	302 engine and 351 engine using 157T flywheel with 0 unbalance rotating assemblies. Reduced rotating mass for faster engine acceleration in race applications. Meets SFI 1.1.
M-6375-D46 (6 bolt) ①②	Cast Iron	164-Tooth	0 ozin.	4.6L SOHC Mustang. Has increased RPM capability over stock cast iron flywheel.
M-6375-F46 (6-bolt) ①②	Billet Steel	164-Tooth	0 ozin.	4.6L SOHC Mustang. Has increased RPM capability over stock cast iron or M-6475-D46 nodular iron flywheel. Meets SFI 1.1.
M-6375-G46 (8-bolt) ①②	Billet Steel	164-Tooth	0 ozin.	4.6L SOHC Mustang GT/DOHC Cobra Mustang. Has increased RPM capability over stock Cobra flywheel. Fits 10.5" and 11" clutch. Meets SFI 1.1.
M-6375-Z460	Billet Steel	176-Tooth	24.2 ozin.	Fits 1979-97 460 including M-6007-C460/D460/A514. For external balance only. Long style clutch. Meets SFI 1.1.
<b>M-6375-R00</b> 1@	Aluminum	164-Tooth	0 ozin.	Used on the 2000 Cobra "R" Mustang. Fits Cobra 4.6L/5.4L DOHC 4-valve engines and other Mustangs with 8-bolt crank. Reduced rotating mass for faster engine acceleration in race applications. Fits 10.5" and 11" clutch. Meets SFI 1.1.
M-6375-J46	Nodular Iron	164-Tooth	0 ozin.	Used in M-7060-C46. Works with an 11" clutch.

#### NOTES:

① Diaphragm clutch uses metric bolts and dowel pins. Requires metric pressure plate bolts N602549-S51M and alignment dowel pins D1FZ-6397-B. Ford Racing kit M-6397-A302, see below.

② 4.6L engines may have 6- or 8-bolts to attach to the crankshaft. Check the engine code before ordering. Romeo built engines have 6-bolts and Windsor built engines have 8-bolts. All Cobra engines have 8-bolts.

③ Has bolt-on counter weight 4" long for A302, 7.2" long for C302.

## 11" CLUTCH BOLT KIT

- M-6397-A46
- Use with Ford Racing flywheels to align and attach the 11" diaphram-style

clutch and pressure plate to the flywheelThis kit includes 3 dowel pins that are

- necessary to align and stiffen the pressure plate shell. NOTE: If the dowels are not used the clutch may chatter and the engine vibrate
- Includes pressure plate bolts and dowel pins for use with 11" modular flywheel



#### PRESSURE PLATE BOLT AND DOWEL KIT M-6397-A302

- Use with Ford Racing flywheels to align and attach the 10.5" diaphragm-style clutch pressure plate to the flywheel
- This kit includes 3 dowel pins that are necessary to align and stiffen the pressure plate shell.
   NOTE: If these dowels are not used the clutch may chatter
- This kit includes 6 bolts (8mm) with integral lock washers. NOTE: Ford Racing and production flywheels have metric bolt holes for diaphragm style clutches. Ford Racing billet steel flywheels

also have 5/16"-18 SAE bolt holes for "long" style clutches.

#### MANUAL TRANSMISSION FLYWHEEL BOLTS

M-6375-A302 shown

 M-4216-A200
 Sold in pkg. of 100

 M-4216-A210
 Sold in pkg. of 10

 • 7.16"-20 x .9375" bolt



#### 4.6L MANUAL FLYWHEEL BOLTS M-6379-B

- Fits 4.6L modular engines with manual transmission flywheels
- M10x1x26.5 bolt
- Package of 8

# **BELLHOUSINGS AND CLUTCHES**

## BELLHOUSINGS

- M-6392-E 1979-93 5.0L T-5 Bellhousing
  Can be used as a replacement part or
- Can be used as a replacement pa for building a kit car or street rod
- Cast aluminum, produced from the original production tooling

M-6392-M46

4.6L/5.4L Tremec 3550 Cobra "R" Bellhousing

- Use to mate the Tremec 3550 transmission to the 4.6L/5.4L modular engines
- Minor modification is required for transmission clearance and mounting in some applications
- Cast aluminum production style bellhousing



## UNIVERSAL SAFETY BELLHOUSING

- M-6392-C
- Steel safety bellhousing with block plateFits 1979-93 Mustangs with T-5
- or Tremec 5-speeds and cable operated clutch linkage
- Will not work with long-style pressure plate
   May interfere with
- May interfere with long tube headers

# rith T-5 cable

#### BELLHOUSING M-6392-R58

- Unique clutch housing required for Tremec 5-speed transmission used in the 1995 Mustang Cobra "R" models with 351W
- Will also fit 289/302/351C engines
- Requires diaphragm type clutch



## **TECH TIPS**

#### CLUTCH/TRANSMISSION INSTALLATION TIPS 1986 and newer V-8 Mustangs

The flywheel to crankshaft bolts must be hand-torqued to 75-85 ft./lb. (302/351W) and 54-64 ft./lb. (4.6L)

The 10.5" pressure plate bolts must be torqued to 12-24 ft./lbs. and 11" pressure plate bolts to 33 ft./lbs. + 1/4 turn.

Be sure to use the alignment dowels in the flywheels.

Pressure plate bolts and alignment dowels for the 10.5" clutch can be purchased using PN M-6397-A302. Pressure plate bolts N808969-S100 and alignment dowels PN D1FZ-6397-B are for the 11" pressure plate.

Evenly tighten bolts in a circular direction one turn at a time.

Bellhousing alignment is crucial for proper clutch and transmission function.

Due to production tolerances of engine blocks and bellhousings, it is possible for the transmission centerline and crankshaft centerline to be misaligned. Misalignment can cause transmission gear wear, transmission jumping out of gear, driveline vibration, clutch pedal vibration, pilot bearing noise, release bearing noise or excessive clutch spin time. It may also damage the pilot bearing, transmission mainshaft bearing and clutch hub. It will also cause harsh shifting.

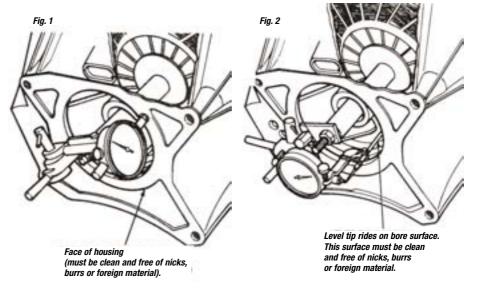
Before installing the bellhousing, check the block mounting surface and bellhousing surfaces for nicks, dents, paint debris, etc. These are some things that could affect the accuracy of your measurements.

## HOW TO CHECK BELLHOUSING ALIGNMENT

The first step is to check bellhousing face runout. You are checking for parallelism of the back of the bellhousing to the back of the block. Install the dial indicator (as shown in Fig.1). Rotate the crankshaft and mark down the reading. Be sure to push the crankshaft against the thrust bearing for an accurate reading. Maximum runout is .010. The next step is checking bellhousing bore runout. You are checking to see if the bellhousing bore centerline is aligned with crankshaft centerline. Reposition the dial indicator in the bellhousing bore (as shown in Fig. 2). Rotate the crankshaft and mark down the readings. Maximum out of concentricity is .015. If the bore runout is out of spec. install appropriate offset dowels.

Offset alignment dowels can be purchased from Lakewood.

.007 PN 15950 .014 PN 15960 .021 PN 15970





## **CLUTCHES**

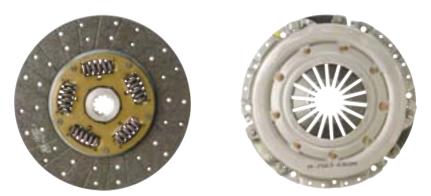
PART NUMBER	DESCRIPTION	ENGINE	DIAMETER	TECHNICAL INFORMATION
M-7550-A302N 1@3	Disc	V-8	10.5"	HD organic lining. Component of M-7560-A302/C302 kits.
<b>M-7550-X302</b> 123	Disc	V-8	10.5"	HD disc with carbon/copper lining on flywheel side and carbon lining on pressure plate side.
<b>M-7550-T302</b> ①	Disc	V-8	10.5"	HD disc with carbon/copper lining on flywheel side and carbon lining on pressure plate side. Designed for 26 spline shaft on M-7003-R58C, M-7003-R58W and M-7003-R58H transmissions. Will work with M-7563-A/B/C/D302 pressure plates.
M-7563-A302N	Pressure Plate	V-8	10.5"	HD diaphragm type with approx. 40% more capacity than stock Mustang unit. Nodular iron plate.
M-7563-B302 134	Pressure Plate	V-8	10.5"	HD diaphragm type with centrifugal assist. Has approx. 25% more capacity than stock Mustang unit. Cast iron plate.
M-7563-C302N 134	Pressure Plate	V-8	10.5"	HD "King Cobra" diaphragm type. Same capacity a M-7563-A302N above, but stronger cover and revised internal geometry reduce clutch pedal effort by 10%. Nodular iron plate.
M-7563-D302N	Pressure Plate Mustang	V-8	10.5"	Same as M-7563-C302N "King Cobra" unit above but has been lightened for reduced inertia. This is the hot ticket for road racers as it increases acceleration off the corners.
M-7560-A302N 1234	Mustang HD Clutch Kit	V-8	10.5"	Consists of M-7550-A302N disc, M-7563-A302N pressure plate and D9ZZ-7548-A throwout bearing.
M-7560-C302N 1234	Mustang HD "King Cobra" Clutch Kit	V-8	10.5"	Consists of M-7550-A302N disc, M-7563-C302N pressure plate and D9ZZ-7548-A throwout bearing.
<b>M-7560-T46</b> ①	11" Clutch Kit	4.6L	11"	Kit contains 11" clutch disc with 26 spline hub and pressure plate. Clutch disc with carbon/copper lining on flywheel side and carbon lining on pressure plate side. Centrifugal assist design pressure plate with 25% more torque capacity then production Cobra. Used when installing M-7003-R58C, M-7003-R58H and M-7003-R58W transmissions into 1996-04 4.6L Mustangs with production 11" flywheel or Ford Racing flywheels M-6375-F46, M-6375-G46 or M-6375-R00.
<b>M-7060-C46</b> ①②	11" Clutch Upgrade Kit	4.6L DOHC	11"	This kit increases clutch capacity by 10% on 1996-98 Cobra 4V vehicles. It consists of the production 1999 Cobra 4V flywheel, 11" clutch/pressure plate assembly and attaching bolts/dowel pins to replace the 10.5" clutch assembly in the 1996-98 Cobra 4V vehicles.
M-7060-D46	11" Clutch Kit	V-8	11"	Kit increases clutch capacity of the 1996-98 Mustang Cobra 4.6L DOHC 4V by 10% and increases clutch disc burst speed 10% over 1999-01 Cobra. Kit contains 2003 Cobra match balanced aluminum flywheel and 11" pressure plate, 11" clutch disc and alignment dowels.

**NOTES:** ① Clutches have NO warranty!

2 All clutch discs have 1.0625"-10 spline hub.

③ Fits all 1986-01 Mustang GT, 1993-98 Cobra with T-5 or T45 Transmissions. 2001-04 Mustang GT with 3650 transmission and 1999-03 Cobra use an 11" clutch. OK to mix and match Ford Racing clutch discs and pressure plates, but do NOT install a FRPP pressure plate with a stock disc or vice-versa as disengagement problems may occur. Installation of 10.5" clutch assemblies on 1979-85 vehicles equipped with 10" clutch requires new flywheel (see page 129). Metric fasteners and dowel pins must be used with 10.5" clutches.

Requires metric pressure plate bolts N602549-S51M and alignment dowel pins D1FZ-6397-B. Ford Racing kit M-6397-A302 (see page 129).



# CLUTCH COMPONENTS

## V-8 MUSTANG CLUTCH LINKAGE UPGRADE KIT

M-7553-A302

This kit consists of a beefed-up clutch release fork and heavy-duty, selfadjusting Teflon-lined clutch cable. Fits 1979-93 Mustang. **NOTES:** 

- ① 1984 and later cars have heavy duty cable as original equipment.
- Isoa and later cars have heavy duty cable as original equipment.
   1986 and later cars have beefed-up clutch release fork as original
- equipment.
   To install this kit in 1979-81 vehicles with manual adjustment clutch mechanisms, the 1982 and later self-adjusting quadrant mechanism must be purchased from Ford and Lincoln-Mercury dealers.



## V-8 MUSTANG ADJUSTABLE CLUTCH LINKAGE KITS

 M-7553-B302
 Cable and Quadrant 1982-95

 M-7553-C302
 Service Cable 1982-95

 M-7553-D302
 Cable and Quadrant 1996-04

 M-7553-E302
 Service Cable 1996-04

- Includes all parts required to convert stock
   non-adjustable clutch cable to fully adjustable type
- Now you can adjust clutch pedal travel to your driving habits



## TOPSIDE CLUTCH ADJUSTER

#### M-7554-A

- Allows you to adjust clutch engagement without going under the car
- Eliminates the rubber bushing at the engine compartment bulkhead for more precise clutch action



#### DOUBLE-HOOK CLUTCH QUADRANT M-7583-A

- Fits 1982-04 V-8 Mustang
- Double-hook design lets you use an adjustable clutch cable or Topside Clutch Adjuster and stock cable
- CNC machined from billet aluminum



## MUSTANG SN95 CLUTCH LEVER

M-7515-A

- Stock replacement clutch lever
- Fits 1996-04 V-8 Mustang



## HD THROW OUT BEARING M-7548-A

- Fits 1979-2004 Mustangs with manual transmission and V-8 engine
- Self centering bearing design
- Heavy-duty design lasts longer than most aftermarket bearings



## ROLLER PILOT BEARING M-7600-A

- Production roller pilot bearing fits 289, 302, 351C and 351W crankshafts
- Designed for .669" diameter input shaft NOTE: Pre-greased—do not add extra grease. Clutch and bearing damage may occur.



#### ROLLER PILOT BEARING M-7600-B

 Production roller pilot bearing fits 4.6L modular engines
 NOTE: Pre-greased—do not add extra grease. Clutch and bearing damage may occur.



## TRANSMISSION COMPONENTS



## CHROME AUTOMATIC TRANSMISSION PANS

## M-7194-C6 C-6 A.T. (All)

M-7194-C4 C-4 A.T. (Case Fill)

- M-7194-AD AOD A.T. (Case Fill)
- Standard sump
- · Kits include drain plug for easier oil changes
- · Filters and pan gaskets not included



M-7194-C6 shown



M-7194-C4 shown



M-7194-AD shown

#### **ALUMINUM TRANSMISSION** PANS C-6 Deep Sump

M-7195-C6 M-7195-T

E40D/4R100 Deep Sump Aluminum Transmission Pan

- Cast aluminum transmission pans with cooling fins and Ford Racing logo cast in the bottom
- · Pans hold approximately 2 quarts additional ATF
- Kits include mounting hardware
- · Filters and pan gaskets not included





M-7195-T shown

## ALUMINUM **TRANSMISSION PAN**

- M-7195-C4D\* C-4 Extra Deep Sump
- Cast aluminum transmission pan with cooling fins and Ford Racing logo cast in the bottom
- Pan holds approximately 3 guarts additional ATF (case fill only)
- Kit includes mounting hardware
- · Filter and pan gasket not included



## ALUMINUM TRANSMISSION PANS

M-7195-4R Fits 4R70W Trans

- M-7195-AOD Fits AOD/AODE Trans • Cast aluminum transmission pans
- with cooling fins and Ford Racing logo • Pans hold approximately 2 quarts
- additional ATF • Kits include mounting hardware
- · Filters and pan gaskets not included





CHASSIS COMPONENTS

# TRANSMISSION COMPONENTS

## **AOD WIDE RATIO/UPGRADE KIT**

## M-7398-D\*

- Provides drag racers with more acceleration and tow vehicles with more pulling power without changing axle ratios
- Increased torque capacity!

### **FEATURES - FEATURES - FEATURES**

- HD wide ratio gearset
  - 1st gear ratio increased from 2.40 to 2.84
  - 2nd gear ratio increased from 1.47 to 1.55
- High RPM caged needle pinion bearings
- HD low inertia 6-plate high clutch assembly
- Low inertia reverse clutch assembly
- HD "wide" OD band
- 6000 RPM intermediate one-way clutch
- HD 4-plate intermediate clutch
- Improved lube forward clutch hub •
- #2 thru #9 needle bearing thrust washers (improved #5, #9 and #7 support washer)



#### **AOD VALVE BODY** M-7111-C

- · Increased transmission durability, control and performance
- Revised pressure control, modified lubrication, firm part throttle shifts, hard wide open throttle shifts, and 1, 2, D, OD pattern
- Requires 3000+ rpm hi-stall non-lock up converter
- Electric solenoid overdrive lockout



### IF YOU LIVE, EAT AND **BREATHE RACING. THEN TEAM** FORD RACING IS FOR YOU

Team Ford Racing, the first inner circle of fans ever assembled by an auto manufacturer, provides what you can't get anywhere else.

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- Exclusive Team Ford Racing merchandise
- Exclusive access to team events
- Crew member offers
- · Much, much more

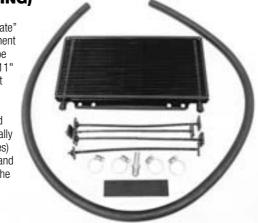
For more information on ioining, see the



Team Ford Racing ad on page 122 of this catalog

#### **HD TRANSMISSION OIL COOLER KIT** (SELF-REGULATING) M-7095-SR

Unique patented "stacked-plate" design offers 35% improvement in efficiency over fin-and-tube coolers. The .75" x 7.25" x 11" unit weighs only 2.5 lbs., but has a full 18,000 lbs. GVW rating. The self-regulating design feature bypasses cold transmission fluid automatically (without thermostats or valves) until its viscosity decreases and allows fluid to flow through the main body of the cooler. SAE thread fittings.



#### C-6 HD 6-PINION WIDE RATIO GEAR SET KIT (ALL PARTS BRAND NEW!) WIDE RATIO (PLANETARY NEEDLE BEARING) M-7398-F\*

This kit adapts gear train components from the new 4R100 transmission to all C-6 transmissions. The 6-pinion planet assemblies provide 2.72:1 low and 1.54:1 intermediate ratios as the discontinued M-7398-C gear set, while increasing torque capacity by 43%. Kit includes the HD #5, #7, #8, and #9 needle bearing components. Provides drag racers with more acceleration, and tow vehicles or motor homes with more pulling power-without changing axle ratios.

NOTE: No machining is required on M-7398-F kits!



#### **UNIQUE SERVICE PARTS FOR C-6 HD 4-PINION GEAR SETS** AND NEEDLE BEARING KITS

The remainder of the parts in the gear sets and needle bearing kits can be serviced through your Ford and Lincoln-Mercury dealers. M-7166-A and -B kits use current production 7.5L (460 CID) C-6 components. M-7398-B and -C kits use current production 7.5L (460 CID) E40D transmission components. If you must replace the one-way clutch inner race on ANY of these kits, Ford Racing recommends that you purchase an M-7166-A kit to obtain compatible No. 9 needle bearing/one way clutch inner race components.

The following unique parts are available only through Ford Racing to service the indicated gear sets and needle bearing kits.

PART NUMBER	DESCRIPTION	APPLICATION (KIT)
М-7240-В ①	No. 9 Needle Bearing Assembly (Double race design)	M-7166-A/B, M-7398-B/C (After 8-1-89)
M-7240-F	No. 7/8 Needle Bearing Assembly	M-7398-B/C/F
NOTE: 1) Use with	one-way clutch inner race 1.015-1.00	)1" thick

134 Tech "Hot Line" (586) 468-1356



### HEAVY DUTY LOW STALL TORQUE CONVERTERS

- M-7902-D1/D2\*
- These converters are designed to increase towing power, improve fuel economy, reduce heat due to less slippage and improve transmission performance



## HEAVY DUTY VERY LOW STALL TORQUE CONVERTERS

#### M-7902-D3/D4/D5\*

• These converters are designed to increase towing power, improve fuel economy, reduce heat due to less slippage and improve transmission performance



- The very low stall feature provides maximum torque multiplication at peak torque
- These converters will handle most extreme load carrying or towing jobs

#### DIESEL CONVERTERS

PART NUMBER	TRANSMISSION	APPLICATION	APPROXIMATE Stall speed
M-7902-D1*	E40D	1989-94 Diesel 7.3L	18-2200 RPM
M-7902-D2*	E40D	1995-97 Diesel 7.3L	18-2200 RPM
M-7902-D3*	E40D	1989-94 Diesel 7.3L	15-1800 RPM
M-7902-D4*	E40D	1995-97 Diesel 7.3L	15-1800 RPM
M-7902-D5*	C-6	All Diesel 7.3L	15-1800 RPM

#### AOD TRANSPAK KIT M-7101-F\*

This kit allows motorsport enthusiasts to tailor their AOD transmission for high performance street or heavy-duty/strip applications. Kit installs without removing transmission.



## E40D TRANSPAK KIT M-7101-H\*

This kit permits owners of trucks and SUVs equipped with the E40D transmission to tailor the shift quality for their driving needs. Kit installs without removing transmission.



#### HIGH STALL TORQUE CONVERTERS M-7902-G/H/J/K/L\*

- These torque converters feature furnace brazed pump and turbine. Steel spline, bearings on pump, turbine and cover
- Stall is approximately 400-600 RPM higher than stock. Results may vary
- depending on vehicle and modificationsRecommended for Street/Strip applications

PART NUMBER	APPLICATION	APPROXIMATE STALL SPEED
M-7902-G*	C-4 1966-69 289/302/351 24 Spline	2000-2200 RPM 11.437 Bolt Circle
M-7902-H*	C-4 1970-81 289/302/351 26 Spline	2000-2200 RPM 11.437 Bolt Circle
M-7902-J*	C-6 1966-76 390/428/429/460	2000-2200 RPM 1.850 Crank Pilot
M-7902-K*	C-6 1966-91 289/302/351/429/460	2000-2200 RPM 1.375 Crank Pilot
M-7902-L*	AOD 1981-93 289/302/351 Retains lock-up, works with stock input	2000-2200 RPM

#### HIGH STALL TORQUE CONVERTERS M-7902-M/N/P/Q/R/S/T/U\*

- These torque converters feature furnace brazed pump and turbine. Steel spline, bearings on pump, turbine and cover
- Anti-ballooning plates on pump and cover
- Stall is approximately 600-800 RPM higher than stock. Results may vary depending on vehicle and modifications
- Recommended for limited street and strip applications

PART NUMBER	APPLICATION	APPROXIMATE STALL SPEED
M-7902-M*	C-4 1966-69 289/302/351 24 Spline	2200-2800 RPM 10.5 Bolt Circle
M-7902-N*	C-4 1966-69 289/302/351 24 Spline	2200-2800 RPM 11.437 Bolt Circle
M-7902-P*	C-4 1970-81 289/302/351 26 Spline	2200-2800 RPM 10.5 Bolt Circle
M-7902-Q*	C-4 1970-81 289/302/351 26 Spline	2200-2800 RPM 11.437 Bolt Circle
M-7902-R*	C-6 1966-76 390/428/429/460	2200-2800 RPM 1.850 Crank Pilot
M-7902-S*	C-6 1966-91 289/302/351/429/460	2200-2800 RPM 1.375 Crank Pilot
M-7902-T*	AOD 1981-93 5.0L/5.8L Retains lock-up, works with stock input	2200-2800 RPM
M-7902-U*	AODE 1994-95 5.0L Retains lock-up, works with stock input	2200-2800 RPM



# AXLE COMPONENTS

## CARRIERS

Ford Racing offers a variety of nodular iron and aluminum carriers for the popular 9" axle.





	MATERIAL		APPROX.	BRG. CAP	ADJUSTER	DIFF.	DIFF.	AXLE SHAFT	
PART NUMBER	CARRIER	BRG. CAP	WEIGHT	I.D.	NUT	BRG.	RACE	COMPATIBILITY	NOTES
M-4141-B	Nodular	4130 Steel	26#	2.892" Steel	Stamped Steel	LM-102949	LM-102910	28/31/33T	Heavy Duty
M-4141-C	Nodular	4130 Steel	33#	3.250" Steel	Machined Steel	LM-104949	LM-104911	35/40T	Super Heavy Duty
M-4141-D	Aluminum	Aluminum	14#	3.0625"	Machined Steel	LM-603049	LM-603011	28/31/33T	Heavy Duty
М-4141-Е	Nodular	4130 Steel	26#	3.0625" Steel	Machined Steel	LM-603049	LM-603011	28/31/33T	Heavy Duty
М-4141-Н ①	Nodular Iron	4130 Steel	26#	3.250"	Machined Steel	LM-104949	LM-104911	31/35/40T	Heavy Duty Lightweight
M-4141-J	Nodular Iron	4130 Steel	26#	2.9528"	Machined Steel	2MM9109W1 Ball Bearings	—	31T	Heavy Duty
M-4141-L	Nodular Iron	Nodular Iron	30#	3.0625"	Machined Steel	LM-603049	LM-603011	28/31/33T	Low Cost

NOTE: 1 Used with Detroit Locker M-4204-L31 with 31-tooth spline road racing applications.

#### 9" DIFFERENTIAL CARRIER M-4141-HS

Developed using Finite Element Analysis (FEA) to withstand the demands of NASCAR racing. FEA is a method for predicting the response of a geometric structure due to the environment it is being designed to function in. The process starts by creating a geometric model. The model is then subdivided, or meshed into many small geometric pieces, or elements of basic geometric shape. These basic shapes can easily give results for stress and strain where the larger geometric structure cannot.

- Steel casting has nearly double the tensile and yield strength and elongation VS cast iron
- Investment cast from 8620 steel
- 4130 steel bearing caps
- ARP bolts
- 3.250" differential bearing diameter
- Approximate weight: 21 lbs.





## BRAKE BACKING PLATE T-BOLTS

- M-4002-A
- T-Bolts used on 9" axle housing to attach the brake backing plate
- 3/8-24 x 1.35"
- Sold in bulk box of 100



## BRAKE BACKING PLATE T-BOLT AND NUT KIT

#### M-4002-B

- Use to attach brake backing plates to 9" axle housings
- 3/8-24 x 1.3" T-bolts and locking nuts
- Sold in axle sets of 8 bolts and nuts



#### DIFFERENTIAL BEARING ADJUSTING NUT



 M-4067-A nut services M-4141-B nodular carrier



#### DIFFERENTIAL BEARING ADJUSTING NUT M-4067-B

- Machined steel 9" differential bearing
- Machined steel 9" differential bearing adjuster nut (Sold separately)
   Outside diameters 2.0002"
- Outside diameter: 2.9687"
- Dimensionally same as M-4067-A but has improved strength for applications requiring an upgrade



## DIFFERENTIAL BEARING ADJUSTER LOCK AND BOLT KIT

M-4144-B

Kit includes 2 locks and 2 bolts to secure differential bearing adjusting nuts on 9" nodular carriers produced after November 1989.



## SHOULDER BOLT

**M-4216-A100** Sold in pkg. of 10 1/2" dia. shoulder and 7/16" threads. Allows use of ring gear with 7/16" dia. threaded holes on differential carrier designed for ring gear with 1/2" diameter holes. (Direct replacement for discontinued shoulder bolt C3AZ-4216-A.) **NOTE:** Will NOT fit traction-lock differentials.

# ¢ ¢ ¢ ¢

### BOLT - RING GEAR TO DIFFERENTIAL CASE

M-4216-A200 Sold in pkg. of 100 M-4216-A210 Sold in pkg. of 10 The most popular 9" ring gear bolt, for use on open differentials, Detroit Lockers and spools. NOTE: Will NOT fit Traction-lock differentials. Same as flywheel bolts, see page 129.



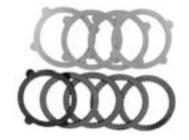
#### 8" AND 9" FORD DIFFERENTIAL BOLT KIT

- M-4216-B Sold in pkg. of 10 • Fits 8" and 9" Ford
- Traction-Lok differentialsAttaches ring gear
- to differential



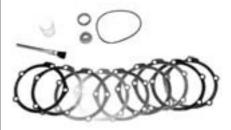
#### 9" TRACTION-LOCK REBUILD KIT M-4700-A

- Kit includes:
   4 plates with friction material
  - on both sides - 1 plate with friction material on 1 side
- 4 steel plates This kit will renew the torque bias
- characteristics of all 9" Ford Traction-Lok differentials



### SMALL PARTS KIT M-4663-A100

- Kit includes:
- Pinion nut
- 0-ring
- Collapsible spacer
- Gear marking compound
- Brush
- Shims to set pinion gear depth



## 9" SHIM KIT M-4663-A201

Kit includes the same shims used in the M-4663-A100 small parts kit. The shims are 0.010" to 0.020" thick in .002" increments.



## AXLE COMPONENTS

## **RING GEAR AND PINION SETS 9"**

#### SHORT TRACK AND ROAD COURSE

PART NUMBER	RATIO	PART NUMBER	RATIO
M-4209-N511	5.11	M-4209-N557	5.57
M-4209-N514	5.14	M-4209-N567	5.67
M-4209-N525	5.25	M-4209-P614	6.14
M-4209-N533	5.33	M-4209-P620	6.20
M-4209-N543	5.43	M-4209-P633	6.33
M-4209-N550	5.50	M-4209-P643	6.43

Ford Racing's famous, race-proven 9" Ring Gear and Pinion sets are engineered, developed, manufactured and tested for maximum performance. They are CNC lapped and developed with an optimal racing pattern. Their premium quality features make them the first choice on the NASCAR circuit. Ring gears upgraded to SAE 8620 steel and factory back-cut for up to 2 lbs. weight savings.

**SHIM NOTE:** Ford Racing 9" ring gear and pinion sets do not come with pinion depth shims. Order M-4663-A201 Shim Kit or M-4663-A100 Small Parts Kit as necessary.

**9" AXLE HOUSING KIT** M-4330-B

- Engineered with the latest CAD/CAM technology
- Precision manufactured using laser cutting, CNC machining and robotic fabrication for accuracy never before possible
- Constructed from High Form 50 (A-715-50) material for 38% greater strength over 1010
- 4 internal gussets provide added support for axle tubes and cross bracing to eliminate deflection
- 1" wide .25" thick continuous ring flange adds to structural stability
- 7" deep tube sockets assure precise positioning and critical alignment for popular 3" axle tubes
- · Approved by NASCAR
- These 8-piece kits are only sold in sets of 50



## **"DAYTONA" PINION BEARING RETAINER**

M-4614-A High strength aluminum (206T6) M-4614-B Nodular Iron

Both pinion bearing retainers are a direct fit and functional replacement for the C3AZ-4614-B unit, which is no longer serviced by Ford Customer Service Division. Each comes complete with large rear cup (TBAA-4616-A) or (HM89410) and small front cup (B7A-4614-A) or (M88010).

NOTE: Use large rear bearing TBAA-4621-A (HM-89443) and small front bearing B7A-4621-A (M-88048) with these retainers.



#### **NASCAR BEARING** SUPPORT M-4614-BR

Race prepared "Davtona" pinion bearing retainer. Deburred and prepped for build up of your 9" carrier assembly.







**9" CARRIER** GASKET

M-4035-A Paper Gasket (Sold in pkg. of 20)



#### **9" CARRIER** GASKETS M-4211-B

Reusable Rubber Gasket (Sold separately)

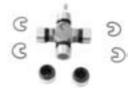
- Replace paper gaskets and messy silicone with this reusable gasket. No more scraping!
- Use for changing ring and pinion gear or differential



## SPECIAL U-JOINT KIT

M-4635-A • Kit consists of a hybrid 1310/ 1330 series cross, plus 4

- 1.0625" OD and 2 1.125" OD caps and locking clips Allows small and large Ford
- drivetrain components to be interchanged



#### **"BENDA" PINION** SEAL (9" AXLE) M-4676-A111

This premium Viton oil seal was developed for high speed, high temperature applications by Dave Benda, Materials Control Supervisor, Ford Sterling Plant.



UNIVERSAL PINION NUT M-4213-A Sold in pkg. of 100

U.S.C.M.

 Universal-design 3/4-20 hex flange pinion lock nut

• Fits 6.75", 7.5", 8.8" and 9" axle assemblies

They are described on page 137.

**COMPANION FLANGE** M-4851-A

- Heavy-duty "short" 1330 Series companion flange
- Accepts 1.0625" U-joint bearing caps
- Balanced to 0.25 oz.-in.
- Replaces C3SZ-4851-A, which is no longer serviced

**NOTE:** The front counter-bore must be machined 0.25" deeper if used with M-4614-A or -B pinion bearing retainers.



#### 8.8" RING & PINION INSTALLATION KIT M-4210-A

- Kit includes: pinion and carrier shims, crush sleeve, pinion seal, pinion nut, ring gear bolts and cover gasket
- Use for changing ring and pinion gear or differential
- Fits IRS



#### 8.8" RING & PINION INSTALLATION KIT M-4210-B

- Includes everything that M-4210-A has and pinion gear and carrier bearings
- Use for changing ring and pinion gear or differential
- Fits IRS



#### 8.8" RING & PINION INSTALLATION KIT M-4210-C

- Includes everything that M-4210-B has and axle shaft bearings and axle shaft seals
- Use for changing ring and pinion gear or differential
- Fits 1986-04 Mustang for non-IRS axles



#### 8.8" REUSABLE CASE GASKET M-4211-A

- Replace messy silicone with this reusable gasket. No more scraping!
- Use for changing ring and pinion gear or differential



## 8.8" RING GEAR BOLT SET

- M-4216-A300 • 7/16"-20 x .875" bolts
- Set of 10 bolts
- Can also be used for automatic transmission flywheels



## 8.8" AXLE BEARING & SEAL KIT

- M-1225-B
- 8.8" axle shaft bearing and seal kit for non-IRS axles
- Kit contains 2 outer axle shaft bearings and seals
- 2.256" O.D. bearing
- Fits 1986-04 Mustang



#### 8.8" SOLID PINION SPACER M-4662-A

- Eliminates the crush sleeve for extreme conditions
- Kit includes solid pinion spacer and shims



#### 8.8" HEAVY DUTY PINION SHIM KIT M-4663-A

 Relocates pinion shim from between the pinion gear head and the bearing to between the bearing race and the housing



## CHROME DIFFERENTIAL

- M-4033-A301 8.8" Axle
- Look good when you pass the others by
- Fits most 4.0L Rangers, vans and trucks



#### 8.8" IRS BEARING AND SEAL KIT M-4413-A

- For use in rebuild 8.8" IRS differentials
- Kit includes 2 stub shaft pilot bearings and 2 stub shaft pilot bearing housing seals



# AXLE COMPONENTS

#### 7.5" TRACTION-LOK LIMITED SLIP DIFFERENTIAL M-4204-C75

- 7.5" differential
- · Fits 28 spline axles
- Features plate-type
- clutches
- Will accept anti-lock exciter ring
- Requires 4-ounces of CM-19546-A1 friction modifier with initial fill

#### 8.8" TRACTION-LOK LIMITED SLIP DIFFERENTIALS

M-4204-F288 28 Spline

M-4204-F318 31 Spline

- 8.8" differential
- Features plate-type clutches
- Will accept anti-lock exciter ring •
- Requires 4-ounces of CM-19546 A1 friction modifier with initial fill

#### 8.8" TRACTION-LOK LIMITED SLIP DIFFERENTIAL M-4204-F318C

- 8.8" differential
- Fits 31 spline axles
- Fits solid or independent rear suspension
- Carbon fiber clutch plates for increased durability
- · Will accept anti-lock exciter ring
- Requires 4-ounces of CM-19546-A1 friction modifier with initial fill
- Original equipment in 2003-04 Mustang Cobra

#### **9" TRAC-LOK LIMITED SLIP DIFFERENTIAL** M-4204-F28A

- 4 spring aggressive torque bias
- 28 spline
- Street/strip application
- 1536 steel billet case cap
- Cast high-strength nodular iron case
- OEM profile gears made of high • manganese, high chromium alloy steel
- Rebuildable

#### **9" TRAC-LOK LIMITED** SLIP DIFFERENTIAL M-4204-F28S

- 2 spring street torque bias • 28 spline

140

- Street application • 1536 steel billet case cap
- · Cast high-strength nodular
- iron case OEM profile gears made of high •
- manganese, high chromium alloy steel Rebuildable •

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## 8.8" AUBURN HD LIMITED SLIP DIFFERENTIALS

#### M-4204-A28 28 spline M-4204-A31 31 spline

- 8.8" differential
- · Features cone-type clutches
- Will accept anti-lock exciter ring
- Requires 4-ounces of CM-19546-A1 friction modifier with initial fill
- · Recommended for street use only

## 8.8" DIFFERENTIAL

#### M-4204-F3180

- 8.8" differential
- Fits 31 spline axles
- Open type differential
- · Will accept anti-lock exciter ring



1

### FRICTION MODIFIER FOR **CLUTCH-TYPE LIMITED-**SLIP DIFFERENTIALS

M-19546-A12

Case of 12 (Single bottles CM-19546-A1 sold in cases of 12 only) Specially formulated additive to provide smooth

operation of clutch-type limited-slip differentials.



## 8.8" AUBURN PRO LIMITED SLIP DIFFERENTIAL

## M-4204-P31

- 8.8" differential
- Fits 31 spline axles • Features cone-type clutches with approximately 50%
  - more torque bias than standard Auburn differentials
- Will accept anti-lock exciter ring
- Requires 4-ounces of CM-19546-A1 friction modifier with initial fill
- · Recommended for street use only

#### **9" TRAC-LOK LIMITED SLIP DIFFERENTIAL** M-4204-F31A

- 4 spring aggressive torque bias
- 31 spline
- Street/strip application
- 1536 steel billet case cap
- Cast high-strength nodular
- iron case • OEM profile gears made of high
- manganese, high chromium alloy steel Rebuildable

#### **9" TRAC-LOK LIMITED SLIP DIFFERENTIAL** M-4204-F31S

- 2 spring street torque bias
- 31 spline
- Street application
- 1536 steel billet case cap

#### Cast high-strength nodular iron case

- OEM profile gears made of high manganese, high chromium alloy steel
- Rebuildable

#### 8.8" T-2 TORSEN DIFFERENTIALS

## M-4204-T28 28 spline

- M-4204-T31 31 spline 8.8" differential
- Torsen T-2 type differential
- Features full-time torque-sensing, torque-biasin
  - M-4204-T28 fits 1999 Cobra/Thunderbird/ Mark VII with IRS (2000-04 Cobra has 31 spline)

#### 9.75" "TRUE TRAC LIMITED SLIP DIFFERENTIAL M-4204-TT31

- Torque sensing differential applies torgue to wheel with best traction
- · Refined enough for street use, stout enough for rigorous off-road duty
- 34 spline count fits all 9.75" axles to 2006

#### **STERLING AXLE "TRUE** TRAC" LIMITED SLIP DIFFERENTIAL M-4204-TT312

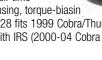
- Torque sensing differential applies torgue to wheel with best traction
- Refined enough for street use, stout enough for rigorous off-road duty

\*Not legal for sale or use on pollution-controlled motor vehicles.

35 spline fits all Sterling axle 10.25" and 10.5" gears



\*\*Direct replacement part.





#### 28-TOOTH 8.8" TRACTION-LOK REAR AXLE ASSEMBLIES (LESS BRAKES AND SHAFTS)

#### FEATURES...

- Approximately 35% stronger than the production 7.5" axle
- Units are fully assembled with housing (including all applicable brackets), gearset and 28-tooth traction-lok differential
- Bolts into the "Fox" vehicles listed with each part number that were originally equipped with 7.5" axle
- Axle assembly uses vehicle's 28-tooth axle shafts and rear drum brakes



	RATIO	VEHICLE APPLICATION			
<b>M-4006-B355*</b> 3.55:1		1979-98 Mustang ①	1981-82 Granada/Monarch		
M-4006-B373*	3.73:1	1979-86 Capri 1978-82 Fairmont/Zephyr	1983-85 LTD/Marquis		

**NOTE:** ① 1986-95 Mustang 5.0L vehicles are factory-equipped with 28-tooth 8.8" axle assembly.

## C-CLIP ELIMINATOR (8.8" AXLES)

#### M-4220-A

- · Retains axle externally
- Eliminates need for C-Clips at differential
- · Mandatory for spools and wherever required by sanctioning bodies
- Fits axle shafts with 1.400" dia. bearing journal
- Not recommended for road racing applications or rear disc brakes



## **AXLE GIRDLE**

- M-4033-G1 8.8" Ford
- Lightweight 356T6 aluminum casting replaces rear cover on 8.8"
- Load bolts provide additional support for differential bearing caps
- Increase ring and pinion gear life
- Stud kit M-4034-Å recommended for 8.8" and Dana 60
   NOTES: Check exterior clearance to chassis/suspension. Will not fit 2005 Mustang



#### 8.8" AXLE INSTALLATION KIT M-4050-B

This kit consists of 2 bushings, 2 C-locks and 1 4-oz. bottle of friction modifier. These parts are included with every Ford Racing 8.8" axle assembly. Now available separately in this kit, in response to requests from racers and fabricators.



#### 2003-04 COBRA PINION FLANGE M-4851-B • Original equipment on

- Original equipment on 2003-04 Mustang Cobra
- Designed for use with 1350 U-joint flange
- 4.25" bolt circle
- Fits all 8.8" rear drive pinions

## 8.8" TRACTION-LOCK REBUILD KIT M-4700-B

- Kit includes clutch pack, shims, friction modifier and instruction sheet
- Fits all 8.8" Traction-Lok differentials



#### 8.8" FORD/DANA 60 BEARING CAP STUD KIT M-4034-A

This kit provides studs for increased retention of the differential caps on 8.8" Ford and Dana 60 axles. They were designed for use with the M-4033-G girdles but can be used with the stock covers.



## AXLE COMPONENTS

## 9.75"/8.8"/7.5" RING GEAR AND PINION SETS

PART NUMBER	RATIO	AXLE						
MUSTANG/RANGER/F-1	MUSTANG/RANGER/F-150 8.8"							
M-4209-F308*	3.08:1	- 1						
M-4209-F327*	3.27:1	-						
M-4209-G355M* 🗱	3.55:1	_						
M-4209-F373N*	3.73:1	3 -						
M-4209-G410A*	4.10:1	_						
M-4209-G430M*	4.30:1	_						
M-4209-G456*	4.56:1	_						
M-4209-G488*	4.88:1	_						
M-4209-G513*	5.13:1	1 -						
MUSTANG/RANGER 7.5"								
M-4209-L345*	3.45:1	-						
M-4209-L373M* 🗱	3.73:1	_						
M-4209-L410N* 🗱	4.10:1	_						



PART NUMBER	RATIO	AXLE						
5.4L F-150, EXPEDITION, NAVIGATOR, F-250/350 ②								
M-4209-H373*	3.73:1	9.75" (rear)						
M-3410-L373*	3.73:1	8.8" (front)						
M-4209-J410M* 🛪	4.10:1	9.75" (rear)						
M-4209-J456M* 🛪	4.56:1	9.75" (rear)						
M-4209-K410M* 🛪	4.10:1	10.25" (rear)						
M-4209-K456M* 🛪	4.56:1	10.25" (rear)						

#### NOTES:

- ① May require rear cover modifications.
- <sup>(2)</sup> These ring and pinions have been developed to increase towing capability of 5.4L Expeditions.
- ③ Replaces our popular M-4209-F373. New manufacturing technology utilizing a Face Hob Process which features a single pass pinion tooth machining operation compared to a conventional three pass process for machining. CNC cut and lapped gear teeth. Higher strength and better quality gears are produced with the Face Hob Process. NOTE: These new gears look a little different, the gear teeth are cut on a different angle and the ring gear has a bevel on the back of the gear.

## RECALIBRATOR

- M-9731-T01\* 2001-04 (except P221 truck)
- · Fits most Ford vehicles with square connector on speed sensor
- Corrects speedometer, odometer, ABS, cruise control systems and other calibration errors related to any changes in axle ratio or tire size

## RECALIBRATOR

speed sensor

M-9731-T99\* 1999-00

• Fits most Ford vehicles that come factory equipped with D-shaped connector on



• Corrects speedometer, odometer, ABS, cruise control systems and other calibration errors related to any changes in axle ratio or tire size



## SPEEDOMETER GEAR USAGE CHART - 7.5" AND 8.8" AXLE

The chart specifies the driven gear recommended to obtain approximately correct MPH readings when the listed Ford Racing ring and pinion gear sets are used in conjunction with the indicated speedometer drive gear and Mustang original equipment. 15"/16"/17" tires (800-815 revolutions/ mile). A dash in the chart indicates that particular combination cannot be obtained. If you are using oversize/undersize tires, obtain the revolutions/mile information from the tire manufacturer and plug it into the formula below. The part numbers of the various speedometer drive and driven gears are shown in the charts. The gears can be obtained from any Ford/Lincoln-Mercury dealer. They are not available from Ford Racing. The drive gears on T-5/T-45/SROD/ Tremec manual transmissions can be changed. The drive gear on Ford rear wheel automatic transmissions is machined into the output shaft. Changing the drive gear is impractical since it requires a new output shaft and transmission teardown. Most have 7 or 8 teeth.

SPEEDOMETER DRIVEN GEAR TEETH								
	DRIVE GEAR TEETH							
AXLE RATIO	6T	<b>7T</b> ①	<b>8T</b> ②					
3.08	-	18	20					
3.27	16	19	21					
3.45/3.55	17	20	-					
3.73	18	21	I					
4.10	20	-	-					
4.30	21	-	_					

NOTES: ① Used in most vehicles with V-8 and T-5 transmissions from 1983-89 and 1996-98 Cobra with T-45 transmissions. 2 Used on 1990-95 Mustang V-8 with T-5 transmissions and 1996-98 Mustang GT with T-45 transmissions. Discontinued.

T-5 MANUAL TRANS. DRIVE GEARS (17285)			MANUAL TRANS. DRIVEN GEARS (17271)			AUTO TRANS. DRIVEN GEARS (17271)		
NUMBER OF TEETH	COLOR	SERVICE Part Number	NUMBER OF TEETH	COLOR	Service Part Number	NUMBER OF TEETH	COLOR	SERVICE Part Number
6	Black	E3ZZ-B	16	Wine	CODZ-A	16	Blue	DOAZ-A 3
7	Yellow	E3ZZ-A	17	White	C3DZ-C	17	Green	C7SZ-A
8	Green	F0ZZ-A	18	Yellow	CODD-B	18	Gray	C7SZ-B ③
T-45 MANUAL TRANS. DRIVE GEARS		19	Pink	CODZ-B	19	Tan	C7VY-A	
(17285)		20	Black	C1DZ-A	20	Orange	C8SZ-B	
7		F6ZZ-AA	21	Red	C40Z-A	21	Purple	D00Z-B
8		F6ZZ-BA						

### SPECIAL APPLICATIONS DRIVEN GEAR CALCULATION EXAMPLE **STEP 2**

#### STEP 1

If your axle/tire combination is not in the above charts, you can calculate the number of teeth required on the driven gear by using this formula:

- T-5 Trans.
- Drive Gear Teeth = 7•
- Axle Ratio = 3.73
- Tire Rev. Per Mile = 815 (225/60 VR15)

## STEP 3

You would select driven gear with closest whole number of teeth, which would be the 21-tooth C40Z-17271-A part.

Driven Gear Teeth = Drive Gear Teeth x Axle Ratio x Tire Rev. Per Mile = 7 x 3.73 x 815 = 21.3 (driven gear teeth) 1000 1000



# CHASSIS COMPONENTS





# CHASSIS COMPONENTS

#### FRONT LOWER CONTROL ARM KIT M-3075-A

This kit enables owners of 1979-93 Mustang/Capri vehicles to upgrade them to 1996 levels with low-friction ball joints and improved inner bushings. Dramatically improves impact harshness qualities of vehicle and is recommended when heavy-duty suspension components are added.

**NOTE:** The ball joint in the kit has been upgraded. They have an improved nylon bearing to further reduce impact harshness. (Since no measurable wear could be detected after 250,000-miles of fleet testing, the wear detectors were eliminated). Kit includes LH and RH lower control arm assemblies.



#### FRONT LOWER CONTROL ARM KIT M-3075-D

This kit enables owners of 1994-04 Mustangs to upgrade to 2003 Cobra Mustang control arms. The kit features 2 front lower control arm assemblies with 50% stiffer front bushings and low friction ball joints. This control arm has a redesigned stamping to improve the turning circle approximately 10% on 1994-98 Mustangs.



### FRONT CONTROL ARM BUSHING KIT

M-3070-G1 1985-93 Mustang M-3070-G2 1994-04 Mustang

These performance bushings provide immediate chassis response allowing the enthusiast to maximize their suspension tuning, whether it be for Drag, Road Racing or Circle Track use.

- Low coefficient of drag assures quick suspension reaction
- Easy-maintenance lubrication via grease fitting for quiet operation
- Moves lower control arm forward for increased positive caster without frame modifications. Ideal for all performance applications
- Bushing design provides unique inner floating sleeve with separate thrust washers for smooth control arm movement without deflection

#### HD REAR UPPER CONTROL ARM KIT M-5500-A

Kit contains 2 upper control arms with bushings that are approximately twice as stiff as current production bushings. Significantly improves traction and handling when fitted to 1979-98 Mustang and 1993-98 Cobra V-8 models.



# **RACK AND PINION BUSHINGS**

M-3716-G1 1986-04 Mustang

- Offset rack bushings are desirable when lowering the vehicle's ride height. These offset bushings provide a more preferable steering geometry at the new ride height
- Special indexing feature on bushing prohibits rotation in the rack housing, eliminating the possibility of rack slippage in the vehicle



#### HD FRONT TIE ROD END M-3130-R00

- HD front tie rod end with high temperature boot that will withstand the temperatures experienced at open track events
- Original equipment on 2000 Cobra "R"
- Fits 1994-04 Mustangs



#### HD REAR TIE ROD END M-5848-R00

- HD rear tie rod end with high temperature boot that will withstand the temperatures experienced at open track events
- Original equipment on 2000 Cobra "R"
- Fits 1999-04 Cobras









#### **1979-04 MUSTANG FRONT/REAR SPRING KITS**

These spring kits have been designed to lower your Mustang and improve its handling. There will be some deterioration in ride quality. NOTE: The height on some cars will vary.

		AMOUNT LO	OWERED (V-8)	SPRING RAT	res (lb./in.)
PART NUMBER	MODEL YEAR	FRONT	REAR	FRONT	REAR
М-5300-В ©	1979-04 ⑤	.875" ①	.5" @	425/530	200/300
M-5300-C 6	1979-04 ⑤	.875" ①	.5" @	650	200/300
M-5300-F 36	1979-04 ⑤	1.2"	1.0"	460/570	170/310
M-5300-G @6	1979-04 ⑤	1.2"	1.2"	500/570	170/310

#### NOTES:

- ① 1994-04 models 1-1/8"
- 2 1994-04 models 3/4"
- ③ Coupe only
- ④ Convertible only
- ⑤ Will not fit 1999-04 Cobra
- <sup>(6)</sup> Due to vehicle assembly tolerances these specifications may vary.



#### **1999-03 MUSTANG COBRA** LOWERING SPRINGS M-5300-J

These springs are designed to lower your Mustang Cobra with independent rear suspension (IRS) approximately 1.5". Improves handling. Many have some deterioration in ride quality. Due to vehicle assembly tolerances these specifications may vary. Spring rates: front 650 lb.-in, rear 570 lb.-in.



#### 2000 COBRA "R" SPRINGS

M-5560-R00 Rear 700 lb.-in. Original equipment 2000 Mustang Cobra "R"



YEAR	<b>MUSTANG V-8</b>	COBRA	COBRA "R'
1979	F395	UUDIIA	
1979	F395 R160		
1980-81	F370		
1300-01	R160		
1982	F395		
	R160		
1983-84	F410		
	R160		
19841/2-93	F425/525		
	R200/300		
1993	F425/525	F425/525	F750/850
	R200/300	R160	R240/260
1994	F400/500	F400	
	R165/265	R160	
1995	F400/500	F400	F700/850
	R165/265	R160	R200/260
1996-98	F400/500	F400	
	R165/265	R160	
1999	F450	F500	
	R210	R470	
2000	F450		F800
	R210		R750
2001-02	F450	F500	
	R210	R470	
2003	F450	F600*	
	R210	R600*	
2004	F450		
	R210		
*Convertible	F500		
	R470		

#### **DRAG RACE SUSPENSION** M-3000-D

This kit consists of specific rate front and rear coil springs to improve the launch characteristics of your 1979-04 Mustang (except 1999-04 Cobra). An airbag is also included for installation inside the right rear coil spring. Fine tuning of the air pressure in the airbag will neutralize the axle torque reaction, which tends to lift the right rear of your car. Recommended for serious Drag Racers.

Spring rates F-300/465, LH 180. RR 180/350.



#### MUSTANG BUMP STEER KIT

M-3130-H	1979-93
M-3130-H1	1994-04

- This kit will correct bump steer on lowered vehicles
- · Allows for increased directional stability, eliminates tire scrub, provides for easy toe adjustment and easily replaceable wear parts
- Recommended for track use only



M-3130-H shown

#### **EXTENDED BALL JOINT** KIT

**M-3050-S** Fits 1994-04 Mustang

- Ball joint kit improves suspension geometry on lowered Mustangs
- It improves geometry by raising the spindle relative to the ball joint pivot point
- Kit contains 2 ball joints and spring spacers
- Can be used on Mustangs with M-2300-K SHD Brake Kit



# CHASSIS COMPONENTS

## **CASTER CAMBER ADJUSTMENT PLATES**

M-18183-S1 Fits 1979-89 Mustang

- M-18183-S2 Fits 1990-93 Mustang M-18183-S3 Fits 1994-04 Mustang
- Independent adjustment of caster and camber for better alignment (caster is not adjustable from the factory)
- · Street or race. One set does it all
- Finally, you can correct camber settings to eliminate excessive tire wear
- Dial in more negative camber for better cornering or reduce camber for less rolling resistance on your drag car

· Add two more degrees positive caster More caster gives you:

- Straighter tracking and better high-speed stability
- Better steering response, quicker turn-in
- Less nose dive under braking
- High precision spherical bearing with stainless steel race replaces soft factory bushing
  - Holds precise alignment under all driving conditions
  - Teflon-lined bearing never needs lubrication
  - Bearing is replaceable
- Less friction than stock bushings · Offset bushings al low custom strut
- height adjustment - Increase suspension travel on
- lowered vehicles - No interference with hoods or
- strut tower braces
- TIG welded and zinc plated for strength and durability









#### **BRAKE PROPORTIONING** VALVE M-2328-C\*

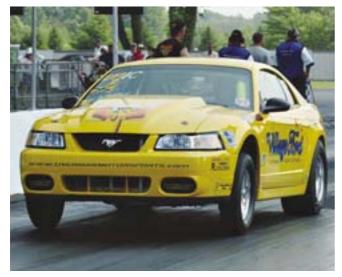
Compact, lightweight (.5 lb.) billet aluminum brake proportioning valve. "Kneepoint" is adjustable from 100 to 1000 psi. Inlet and outlet ports have 1/8-27 NPT threads for maximum installation flexibility.



#### **FRONT STRUT ROD** ADJUSTING SLEEVE M-3310-A

This RH and LH threaded sleeve is used to adjust front suspension caster angle on Oval Track racecars with a "strut rod" front suspension system. Replaces Ford part number AG-3310-A, which is no longer serviced.





Roxanne Shepard's 2004 Mustang 4.6L SOHC Supercharged Engine 9.82 ET @ 141 MPH NSCA EFI Eliminator and NMRA Modular Motor



Barry Shepard's 1997 Cobra 4.6L DOHC Supercharged Cobra Engine 10.97 ET @ 126 MPH NSCA EFI Eliminator and NMRA Modular Motor



## STRUT TOWER BRACES

#### M-20201-A50 ① 1979-93 Mustang

These high quality steel strut tower braces stiffen 1979-1993 "Fox" Mustangs and are designed to clear all production and many aftermarket components and accessories. These braces come complete with all necessary fasteners and instructions. Braces are "E" coated and painted for corrosion resistance. These kits are extremely competitively priced.

#### M-20201-A51 1994-95 Mustang

This brace kit is designed to work with the 1994-95 5.0L/302 Mustang only. It replaces the production brace and allows installation of GT-40 induction system components. They have the same features as the M-20201-A50 kit above.

 M-20201-D46
 Fits 1996-98 Mustang GT 4.6L SOHC

 M-20201-E46
 Fits 1996-98 Cobra 4.6L DOHC

 M-20201-M46
 Fits 1999-02 Mustang GT 4.6L SOHC

Easily bolts into original holes. Designed to clear superchargers and Ford Racing intake manifold M-9424-D46/E46.

#### NOTE:

 Will not fit 1979-85 Mustang with dual snorkel air cleaner. Must use Ford Racing M-9600-A302 air cleaner, or equivalent.

M-20201-A50 shown

#### 2005-06 MUSTANG STRUT TOWER BRACE M-20201-S197

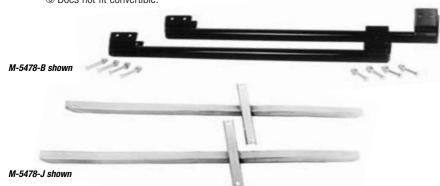
- Fits 2005-06 Mustang GT
- Parallel beam design for added rigidity
- Black powder coated
- Stainless steel Ford Racing emblem
- Does not fit V-6

#### SUBFRAME CONNECTORS M-5478-B 1 S Fits 1979-93 Mustang (Bolt-on Design)

M-5478-B 16 M-5478-D 2

Fits 1994-04 Mustang (Weld-on Design)

- M-5478-J 234 Fits 1979-04 Mustang (Weld-on Design)
- Strengthens chassis for extra traction
- Improves handling
- NOTES: 1) Nuts and bolts included (M-5478-B).
  - 2 Will not fit 1996-98 Cobra without modification.
  - ③ M-5478-J HD "Double-Cross" design distributes loads over more of the body structure.
  - ④ To use on convertible, must remove 3" from the front.
  - 5 Does not fit convertible.



#### 460 FOX ENGINE SWAP MOUNTS M-6038-A460\*

Use in 1979-95 Mustang and other Fox-chassis cars to mount 429/460 engines. Our rubber insulated mount kit is designed to work with M-6675-A460 rear sump oil pan kit and custom headers.

**NOTE:** Does not fit I-6 cylinder front crossmember.



#### HEAVY DUTY #4 CROSSMEMBER M-5030-F

- Developed on the Ford Racing 500 Mustang to control movement of the pinion nose during severe acceleration, deceleration and cornering
- Fits 1999-01 Cobra Mustangs



#### SUBFRAME CONNECTOR CROSS BRACE KIT M-5480-A

- Distributes the load across more area by doubling the mounting locations of the
- subframe connectors
  Fits 1979-04 Mustangs when used with subframe connector kits M-5478-B/D/K



Did you know... The 2005 Mustang GT axles are 31 spline.

\*Not legal for sale or use on pollution-controlled motor vehicles. \*\*Direct replacement part.

# CHASSIS COMPONENTS

#### REAR BRAKE BRACKET KIT M-2300-M\*

- Used to install Mustang Cobra, Mach 1, or Special Edition rear calipers on a 1994-04 Mustang GT
- Kit includes production 11.65" rotors, caliper mounting brackets, moan braces, dust shields and dust shield bolts



#### COBRA CALIPER SET M-2320-C

- Replacement front calipers and brake pads for 1994-04 Mustang Cobra with 13" rotors
- Same calipers and pads used in the M-2300-K SHD brake kit for 1987-93 Mustangs



#### SPECIAL EDITION MUSTANG FRONT CALIPERS M-2320-F

- Same calipers as used on the 2001 Special Edition Mustang Bullitt. Similar to 2001 Mustang Cobra except painted red with running horse in place of Cobra logo
- Fits 1994-04 Mustang with M-2300-Q/R upgrade kit and 1987-93 Mustangs with M-2300-K brake kit
- Kit includes left and right front calipers and brake pads



#### 10TH ANNIVERSARY COBRA CALIPER SET M-2320-AF

- Replacement front calipers with brake pads
- Fits 1994-04 Mustang Cobra, Special
- Edition, and Mach 1 Mustangs
  Can be used on M-2300-K SHD brake kit
- Can be used on M-2300-K SHD brake kit with the use of M-2321-A hardware kit



#### 10TH ANNIVERSARY COBRA CALIPER KIT M-2320-A

- Replacement front and rear calipers with brake pads
- Fits 1994-04 Mustang Cobra, Special Edition, and Mach 1 Mustangs
- Original equipment on 10th Anniversary Mustang Cobra
- Can be used on M-2300-K SHD Brake kit with the use of M-2321-A hardware kit



#### COBRA REAR CALIPER M-2320-CR

- Replacement rear calipers and brake pads for 1994-04 Mustang Cobra with 11.65" rotors
- Same calipers and pads used in the M-2300-K SHD brake kit for 1987-93 Mustang GT



#### BRAKE MASTER CYLINDER COVER M-2162-A301 Most passenger cars

M-2162-B301

Most passenger cars 2.5" x 5.5" Vans and trucks 3.125" x 6"



#### SPECIAL EDITION MUSTANG REAR CALIPERS M-2320-R

- Same calipers as used on the 2001 Special Edition Mustang Bullitt. Similar to 2001 Mustang Cobra except calipers are painted red
- Fits 1994-04 Mustang Cobra and 1987-93 Mustangs with M-2300-K brake kit
- Kit includes left and right rear calipers and Special Edition Mustang brake pads
- Use M-2300-M bracket kit to install caliper on 1994-04 Mustang GT



#### CALIPER HARDWARE KIT M-2321-A

- Includes 2 coarse thread banjo bolts and 4 washers
- Used to install front calipers M-2320-A and M-2320-AF





### 11", 5-LUG FRONT BRAKE **ROTOR KIT**

M-1102-C Mustang/Thunderbird • 1987-93 Mustang GT/5.0L LX Allows 5-hole, 4.5" diameter bolt circle wheels to be installed on the above vehicles. The kit comes complete with 2 rotors, 2 grease seals and 2 cotter pins. NOTE: Can be used on 1979-86 if spindle, struts, and brake hardware are changed to 1987-93 Mustang GT/ 5.0L LX.



#### **COBRA TRACK PAD** M-2001-A\*

- Front pads for the production 1994-04 Cobra calipers
- · Developed for track use with Hawk Performance Products
- This is an aggressive pad that improves stopping distance and pad fade characteristics
- Recommend for racing only



#### SEVERE DUTY BRAKE KIT M-2400-C

Designed as an upgrade for M-2300-K brake kits. This kit includes 2 improved strength brake hoses and 2 Cobra 13" brake rotors. Can also be used to upgrade the braking performance of 1994-98 Mustang Cobras. Highly recommended for the above vehicles used in open track events.



**Need Ford technical** information on **Performance Parts?** 

**Call the Tech "Hot Line"** (586) 468-1356 or visit our website at www.fordracingparts.com



### **COBRA BRAKE KIT**

**M-2300-Q** Fits 1994-95 Mustang GT ①

M-2300-R Fits 1996-04 Mustang GT

- · This kit will upgrade the front brakes to 1994-98 Cobra 13" rotors and calipers
- · Use with stock rear disk brakes
- · Includes hoses and attaching parts
- Requires 17" wheels such as M-1007-C58, M-1007-C178, M-1007-R58 or equivalent



M-2300-Q shown

NOTE: ① Includes master cylinder.

#### **UNIQUE SERVICE PARTS** FOR M-2300-C, M-2300-F AND M-2300-K

The following components from the M-2300-C, -F, -K kits are not serviced through Ford and Lincoln-Mercury dealer parts department. These parts are only available from Ford Racing to service M-2300-C. -F. -K kits when replacement parts are required.

PART NUMBER	DESCRIPTION	SERVICE KIT
M-2450-A*	Plug, Fixed Proportioning Valve	C/F/K
M-2809-A*	Parking Brake Cable	C/F/K
M-2810-A*	Parking Brake Cable (Front)	F/K

#### **COBRA "R" FRONT BRAKE KIT** M-2300-X\*

- Original equipment on 2000 Cobra "R"
- Kit includes Brembo<sup>®</sup> 4-piston calipers, brake lines, hardware and "upgraded" slotted rotors
- This kit can be used to upgrade the front brakes on 1994-04 GT and 1994-04 Cobra
- May require larger wheels like M-1007-R189/R189C/F500/F500C
- Replacement brake pads M-2001-X

#### 2000 COBRA "R" FRONT BRAKE PADS M-2001-X\*

- Original equipment on 2000 Mustang Cobra "R"
- Replacement pads for M-2300-X Cobra "R"
- Front Brake Kit

### FRONT AND REAR BRAKE ROTORS **1994-04 MUSTANG**

# **FRONT BRAKE ROTORS** M-1125-A\*

- · Get the high-performance brake look with these left and right directional slotted and drilled brake rotors
- Increased cooling
- surface area 11" rotors
  - NOTE: Not recommended for track use.

#### **1994-04 MUSTANG COBRA FRONT BRAKE ROTORS** M-1125-C\*

- · Get the high-performance brake look with these left and right directional slotted and drilled brake rotors
- Increased cooling surface area
- 13" rotors
- Also fits 1987-93 Mustangs with M-2300-K brake kit NOTE: Not recommended for track use.

#### **1994-04 MUSTANG REAR BRAKE ROTORS** M-2026-A\*

- · Get the high-performance brake look with these left and right directional slotted and drilled brake rotors
- Increased cooling surface area
- 10.5" rotors NOTE: Not recommended for track use.

#### 1994-04 COBRA **REAR BRAKE ROTORS** M-2026-C\*

- · Get the high-performance brake look with these left and right directional slotted and drilled brake rotors
- Increased cooling surface area
- 11.65" rotors • Also fits 1987-1993 Mustangs with M-2300-K brake kit NOTE: Not recommended for track use.



# CHASSIS COMPONENTS

#### 5-LUG LOW COST REAR DISC BRAKE KIT LATE FORD 9" AND 8.8" TRUCK AXLE HOUSING

**NOTE:** Does not fit Mustang 8.8" axle.

#### M-2300-G

This rear disc brake kit may be low buck, but it really works! Kit includes 11" rotors, calipers, mounting brackets and attaching hardware. The rotors have the popular 5-hole, 4.5" diameter passenger car bolt pattern. Caliper mounting brackets fit the popular 8.8" Truck/9" Late Ford axle housings with 2" x 3.56" pattern and big 3.15" diameter bearing. This kit is designed for vehicle installations with a 2.5" brake gap (housing flange-to-axle shaft flange).

**NOTE:** Hoses, tubes, parking brake cables and wheels are NOT included in this kit. Additional parts and machining may be required. For more information, call the Tech "Hot Line" at (586) 468-1356.

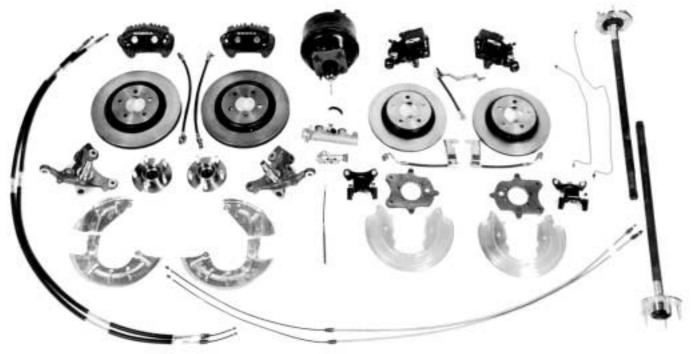


#### 5-LUG FRONT/REAR SUPER HEAVY-DUTY "COBRA" DISC BRAKE CONVERSION KIT 1987-93 MUSTANG

#### M-2300-K\*

This kit permits owners of 1987-93 Mustang GTs and LXs with V-8 to upgrade their vehicle braking system to 1993 Cobra "R"/1994 Cobra specs. The kit features massive 13.0" front and 11.65" rear rotors, plus spindles, axle shafts, hubs, calipers, mounting brackets, Cobra brake booster and master cylinder, adjustable proportioning valve, hoses, tubes, attaching hardware, instructions and more.

Installation is a virtual bolt-on, requiring only one flared connection. Requires use of 17" x 8" wheels (not included in kit) with 5-hole, 4.5" diameter mounting pattern and 5.75" backspacing. Rear inner fender lips should be "rolled" for tire clearance. Some vehicles may also require front fender wheel well modifications, depending on tire size and ride height.





#### 5-LUG REAR BRAKE DRUM/AXLE SHAFT KITS 1979-93 MUSTANG/CAPRI

#### M-1126-A\* 28T Differential

This kit includes 1 pair of 9" x 1-3/4" brake drums with 5 mounting holes on a 4.5" diameter circle, and 1 pair of 28T axle shafts with mating 5-lug bolt pattern. Permits owners of 1979-93 Mustang/Capri vehicles with 9" rear brakes and 8.8" rear axle with 28T differential to fit 5-hole, 4.5" diameter bolt circle wheels to them.



# HEAVY-DUTY 8.8" 4-LUG 31 SPLINE MUSTANG AXLE SHAFT

- M-4235-B\* 1979-93 Mustang
- 1979-93 Mustang with 8.8" axle
- Heavy-duty 31 spline axle shaft (29.16" long)for applications using 31T differentials
- 4-lug, 4.25" bolt circle



M-4235-E\* 1999-04 Mustang M-4235-D\* 1994-98 Mustang M-4235-F\* 1979-93 Mustang

- Heavy duty SAE 1550 steel
- Studs and O-rings included
- 31 spline
- 5-lug, 4.5" bolt circle



For information on all Ford Racing Performance Parts, product specs, installation tips and much more, visit the Ford Racing website at www.fordracingparts.com.



#### DRUM BRAKE BACKING PLATE KIT

- M-2209-B\*
- Fits Brake Drum M-1126-B
- 11" x 2.25" brakes for late model 9" axle housing
- 3.150" center pilot hole
- .381 attaching bolt holes
- 3.56" x 2" attaching bolt pattern
- Kit includes 2 new assembled backing plates with brake shoes, wheel cylinder, self adjuster, parking brake and springs
- Sold in pairs



#### 5-LUG BRAKE DRUM M-1126-D\*

- Service brake drum for M-1126-A 5-lug, 4.5" bolt circle, axle conversion kit
- 9" x 1.75"
- Also fits some Ranger pickups



#### 11" X 2.25" BRAKE DRUM M-1126-B\*

- Brake drum for backing plate kit M-2209-B
- 5 on 4.5" bolt circle
- Axle center pilot hole 2.780"
- Sold individually



# CHASSIS COMPONENTS

#### LIGHTNING LOWERING KIT M-3000-L

This kit lowers all 1999-04 F-150 Lightning/ Harley-Davidson models 30mm (1.181") in all four corners. A simple front coil/jounce bumper replacement and rear shackle replacement are the only items necessary to enhance positive control. Both vehicles retain very good ride/ launch characteristics.



#### LOWERING KIT, 1997-04 F-150, 2WD (EXCEPT P221) M-3000-T1

This kit lowers 1997-04 F-150 standard cab, SuperCab and SuperCrew with V-6 or V-8, approx. 2" front and 4" rear. Includes new front coil springs, rear shackles and hangers and 4 specially tuned high-pressure gas shocks. Fits vehicles with V-6 or V-8 engines in standard cab (long and short bed) and SuperCab (short bed). Improves appearance and handling with very acceptable ride characteristics.

**NOTE:** Not recommended for 1999-04 SVT F-150 Lightning. When used on 2001 SuperCab with 6' box and 5" dia. driveshaft, the driveshaft may hit the crossmember on hard bumps. 2WD only.



### LOWERING KIT, 2001-05 ESCAPE M-3000-E

- Fits 2001-05 Escape 2WD and 4WD
  Linear springs lower the front 1.3" and
- Linear springs lower the front 1.3" and progressive springs lower the rear 1.5" on V-6 models. 4-cylinder models will be lowered less
- This kit reduces the vehicles rear squat tendencies and lowers the center of gravity improving overall handling while maintaining good ride quality
- Kit includes 4 springs and 2 bump stops



#### LOWERING KIT FOR 2WD 1998-02 EXPEDITION/LINCOLN NAVIGATOR WITH REAR AIR

M-3000-EN2 2WD These kits lower 1998-02 Lincoln



Navigator models approximately 2" front and 2" rear. The kit consists of front-coil springs, rear and new air brackets. Kits include 2 rear high-pressure gas shocks for positive suspension control. Gain improved ride, handling and cosmetic improvements.



#### LOWERING KIT FOR 2WD AND 4WD 2002-05 EXPLORER

- M-3000-F • Fits 2002-05 2WD and 4WD
- 4 door



- Lowers 1.6" front and rear
- Includes front and rear springs
- Lowers center of gravity, improves handling
- Increased spring rates for firmer than stock ride



### LOWERING KIT FOR 4WD 1998-02 LINCOLN NAVIGATOR FULL AIR

M-3000-N4 4WD These kits lower 1998-02 Lincoln Navigator and Eddie Bauer Expedition



models approximately 1.5" front and 1.5" rear. The model consists of front, new air brackets and torsion bar keys. Kit also includes 2 rear high-pressure gas shocks for positive suspension control. Both have improved ride, handling and cosmetic improvements. Model retains stock capabilities. Exclusive feature, lowers additional 2" when parked.



# **2003-04 MUSTANG COBRA PARTS**



#### **10TH ANNIVERSARY MUSTANG COBRA WHEEL** M-1007-A179\*

- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 17" x 9" wide
- Charcoal metallic finish
- · Includes center cap



#### **2003 SILVER MUSTANG COBRA WHEEL**

- M-1007-S179\*
- Fits 1994-04
- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 17" x 9" wide
- · Includes center cap



#### 2003 MUSTANG COBRA SUPERCHARGER **PULLEY COVER**

#### M-2301-J

- Dress up your 2003-04 Mustang Cobra with this brushed stainless steel pullev cover
- Features a laser-cut Cobra snake for a striking appearance!
- · Easy to install, direct replacement for production pulley cover



#### 2003-04 MUSTANG COBRA UPGRADED SUPERCHARGER KIT M-6066-CT46\*

- · Kit includes supercharger, supercharger inlet, manifold adapter plate and hardware kit
- Designed for use with factory twin bore throttle body!
- Does not require fuel pump or MAF meter upgrades
- Simple bolt on increase at the rear wheels
- of 85 horsepower and 50 ft./lbs. of torque
- · Installation of this kit will void your new vehicle engine warranty
- Designed by Ford Racing and Whipple engineers

#### 2003-04 MUSTANG COBRA UPGRADED POLISHED SUPERCHARGER KIT M-6066-CT46P\*

- Same as M-6066-CT46, but polished
- · Designed for use with factory twin bore throttle body!
- · Kit includes polished supercharger and supercharger inlet, manifold adapter plate and hardware kit
- Does not require fuel pump or MAF meter upgrades
- Simple bolt on increase at the rear wheels of 85 horsepower and 50 ft./lbs. of torque
- Installation of this kit will void your new vehicle engine warranty ٠
- Designed by Ford Racing and Whipple engineers

#### 2003-04 MUSTANG COBRA REAR BUMPER COVER M-17835-SC46\*\*

- · Original equipment on the
- 2003 Mustang Cobra
- Molded durable urethane plastic
- Fits 1999-04 Mustang GT and Mustang V-6 with custom dual exhaust
- Must be painted to match color of car

#### 2003-04 MUSTANG COBRA FRONT BUMPER COVER M-17957-SC46\*\*

- Original equipment on the 2003 Mustang Cobra
- Molded durable urethane plastic
- Fits 1999-04 Mustang GT, 1999-01 Mustang Cobra with Mustang Cobra hood kit M-16612-SC46
- Includes driving lights
- Must be painted to match color of car





# 2003-04 MUSTANG COBRA PARTS

## 2003 MUSTANG COBRA WIPERS

- M-17528-SC46
- Fits 2000-04 Mustangs and Cobras
- These wiper blades have a no-lift airfoil on the blade designed to keep the wiper blades against your windshield at high speeds
- Kit includes 2 .50" longer airfoil wiper blades and 2 .75" longer wiper blade arms



#### 10TH ANNIVERSARY MUSTANG COBRA SHIFT KNOB M-7213-C

- Embossed leather, simulated carbon fiber shift knob with brushed aluminum insert on top, inscribed with 6-speed pattern
- Fits 2003 Mustang Cobra and all FRPP T-56 transmissions



# 2003 MUSTANG COBRA FOLD AWAY MIRRORS

- M-17682-SC46\*\*
- Color keyed, fold away mirrors
- Fits 1999-04 Mustangs and Cobras with power mirrors
- Must be painted to match color of carSold in pairs



#### 10TH ANNIVERSARY MUSTANG COBRA SHIFT BOOT

### M-7277-B

- Embossed leather, simulated carbon fiber shift boot
- Fits 1994-04 Mustangs with manual transmission
- Attaching glue
   not included



#### 2003 MUSTANG COBRA QUARTER SCOOP KIT M-6327936-SC46

- Original equipment quarter scoops from 2003 Mustang Cobra
- Use with Mustang Cobra Quarter Scoop Inserts M-6327938-SC46
- Fits 1999-04 Mustangs and Cobras
- Must be painted to match color of car
- Sold in pairs, includes fasteners



#### 2003 MUSTANG COBRA QUARTER SCOOP INSERTS M-6327938-SC46

- Fits 2002-04 Mustang and Cobra
- and Cobra Can be used on 1999-04 Mustang and Cobra if used with Quarter Scoop Kit M-6327936-SC46
- Replaces honeycomb style insert with clean, horizontal fins that match the fins in the 2003 Mustang Cobra hood vent grills
- No painting required,
- snap in designSold in pairs
- Sold in p

#### ALUMINUM MUSTANG COBRA RADIATOR M-8005-C03\*\*

- Original equipment on the 2003 Mustang Cobra
- · Easy bolt-in installation
- Fits 1997-03 V-8 Mustangs with manual transmission NOTE: Will fit 1996 Cobra that has factory cooling system update



#### 2003 MUSTANG COBRA ROCKER MOLDING KIT M-6310176-SC46\*\*

- Original equipment on 2003 Mustang Cobra
- Fits 1999-04 Mustang GT. Can be used on V-6 cars but mounting holes must be drilled
- These rocker panels have simple, clean vertical surfaces
- Must be painted to match color of car
- Sold in pairs, includes fasteners



# **MUSTANG COBRA "R" PARTS**



#### **2000 SILVER MUSTANG COBRA "R" WHEEL**

- M-1007-R189\* Fits 1994-04
- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 18" x 9.5" wide
- Includes center cap



#### 2000 CHROME MUSTANG **COBRA "R" WHEEL**

M-1007-R189C\* Fits 1994-04

- 5-lug, 4.50" bolt circle
- 6.12" backspacing
- 18" x 9.5" wide
- Includes center cap

#### **1995 SILVER MUSTANG COBRA "R" WHEEL** M-1007-R58\* Fits 1994-04

• 5-lug. 4.50" bolt circle

- 5.98" backspacing
- 17" x 9" wide
- Includes center cap
- Will clear M-2300-K disc brakes
- · Same wheel used on 1995

SVT Mustang Cobra "R"

#### CHROME MUSTANG **COBRA "R" WHEEL**

#### M-1007-C58\* Fits 1994-04

- 5-lug, 4.50" bolt circle
- 5.98" backspacing
- 17" x 9" wide
- Includes center cap
- · Will clear M-2300-K disc brakes





# 2000 MUSTANG COBRA "R" REAR WING

- M-16600-R00\*
- Original equipment on the 2000 Mustang Cobra "R"
- Must be painted to match color of car
- Fits 1999-04 Mustang and Cobra
- Must drill new holes in deck lid to mount
- Original spoiler holes must be filled



- Original equipment on the 2000 Mustang Cobra "R"
- Injection molded in the production mold in thick, durable urethane plastic by the original manufacturer. This is not a reproduction
- Must be painted to match color of car
- Fits 1999-01 Cobra
- Fits 1999-04 Mustang GT if used with Cobra bumper cover kit M-17957-A50
- Includes special panel fasteners, support bracket and instructions ٠
- Must drill holes in bumper cover to mount
- **CAUTION:** reduces ground clearance

#### **AIR DAM "C" BRACKET KIT** M-16601-B\*

- Service kit for M-16601-R00
- Includes 1 "C" bracket and 2 rubber mounts
  - and pop rivets

#### 2000 MUSTANG COBRA "R" HOOD M-16612-R00

- · Similar to the original 2000 Cobra "R" hood except manufactured from steel reinforced fiberglass
- Top guality hand-laminated fiberglass
- Bolts to stock hood hinges and uses stock hood latch
- Fits 1999-04 Mustang and 1999-01 Cobra
- 12 lbs. lighter than production Cobra "R" model hood
- Must be fitted and painted to match color of car

# **MUSTANG COBRA "R" PRODUCTION NUMBERS**

- 1993 107 units
- 1995 250 units
- 2000 300 units

### **AIR DAM HARDWARE KIT** M-16601-F\*

- Service kit M-16601-R00 Air Dam Kit
- Kit includes guarter turn fasteners

**COBRA** PARTS

# **MUSTANG COBRA "R" PARTS**

# **1995 MUSTANG COBRA "R" UNIQUE SERVICE PARTS**

#### **COBRA "R" HOOD** M-16612-R58

- Fits 1994-98 Mustang
- Fiberglass, steel reinforced
- · Bolt to stock hinges and hood latch
- Top quality hand laminated
- Must be fitted and painted to match color of car



#### 2000 MUSTANG **COBRA "R" SEATS** M-16620-C<sup>3</sup>

- Replacement for original equipment seats on 2000 Mustang Cobra "R"
- Black cloth with Mustang Cobra "R" logo •
- Includes driver and passenger seats
- Seat tracks included
- Seat features manual lumbar support and ٠ manual seat cushion length adjustment



#### BELLHOUSING M-6392-R58

- Unique clutch housing required for Tremec 5-speed transmission used in the 1995 Mustang Cobra "R" models with 351W
- Will also fit 289/302/351C engines
- Requires diaphragm type clutch

#### FRONT SPRINGS M-5310-R58

# · Same springs as used on 1995 Mustang

- Cobra "R" Fits 1994-04
- Mustang Make your Mustang handle
- like an "R" model • 700-850 lb./in. variable rate
- · Sold in pairs only

# **REAR SPRINGS**

#### M-5560-R58

- · Same springs as used on 1995 Mustang Cobra "R"
- Fits 1994-04 Mustang ①
- Make your Mustang handle like an "R" model
- 200-260 lb./in. variable rate
- Sold in pairs only
- NOTE: 1 Except 1999-04 Cobra

#### **ENGINE OIL COOLER** M-6642-R58\*

Replacement cooler for 1995 Mustang Cobra "R". NOTE: Cooler only, NO hoses or hardware included.

#### **HD REAR TIE ROD END** M-5848-R00

- HD rear tie rod end with high temperature boot that will withstand the temperatures experienced at open track events
- Original equipment on 2000 Cobra "R"
- Fits 1999-04 Cobras

#### ALUMINUM RADIATOR M-8005-R58\*\*

- Exact replacement for the 1995 Mustang Cobra "R"
- Installation in other 1994-95 Mustangs requires extensive modifications
- Also required to fill the radiator M-8080-R58 "DE-GAS" Bottle. See page 157.



#### **COBRA "R" FRONT BRAKE KIT** M-2300-X\*

- Original equipment on 2000 Cobra "R"
- Kit includes Brembo<sup>®</sup> 4-piston calipers, brake lines, hardware and "upgraded" slotted rotors
- This kit can be used to upgrade the front brakes on 1994-04 GT and 1994-04 Cobra
- · May require larger wheels like M-1007-R189/R189C/F500/F500C
- Replacement brake pads M-2001-X







# COOLING SYSTEMS



#### HIGH TEMPERATURE BLUE SILICONE RADIATOR HOSE KIT

**M-6052-B** Fits 1986-93 5.0L Mustang Six high-quality molded hoses for upper and lower radiator, thermostat bypass, three heater core hoses for A/C equipped Mustangs. Original equipment on police package Mustangs. Fits better than the other kits with unmolded hoses. Includes 12 special hose clamps with inner band for silicone hoses.



#### "DE-GAS" BOTTLE M-8080-R58\*\*

- Exact replacement for 1995 Cobra "R" Mustang. This is an integral part of the "R" models high-performance cooling system
- Separates air from the cooling system and has the coolant fill cap



Protect that beautiful paint job from scratches, chemicals and oil with this strong, sturdy and slip-resistant "Ford Racing" fender cover. Measures 27'' x 36'' and is acid and grease resistant. Features handy "ridged" area in which to place small tools and parts.



# FORD GT COOLANT OVERFLOW CAP

- Ford GT coolant overflow
   cap with billet cover
   "OPT"
- "GT" logo machined in cap surface
- Fits both coolant overflow and intercooler reservoir



### **ALUMINUM RADIATOR**

#### **M-8005-C** 1979-93 Mustang

- Fits 1979-93 V-8
- Mustang applicationsImproves cooling,
- better than a 3-core copper/brass radiator
- Saves weight on the front end
- Has cooler for auto transmission or power steering
- Easily installed, modification required

Call the Tech "Hot Line" for a fax copy of the instruction sheet.

G

# ALUMINUM MUSTANG COBRA RADIATOR

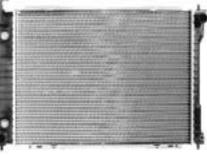
- M-8005-C03\*\*
- Original equipment on the 2003 Mustang Cobra
- Easy bolt-in installationFits 1997-04 V-8

Mustangs with manual transmission **NOTE:** Will fit 1996 Cobra that has factory cooling system update



#### ALUMINUM RADIATOR M-8005-R58\*\*

- Exact replacement for the
- 1995 Mustang Cobra "R"Installation in other
- 1994-95 Mustangs requires extensive modifications
- Also required to fill the radiator M-8080-R58 "DE-GAS" Bottle. See page 157.



#### 2005 MUSTANG HIGH-PERFORMANCE RADIATOR M-8005-S197\*

- Fits 2005-06 Mustang GT
- Thermally efficient up to 700 horsepower
- Uses OEM fan and mounting points
- 2.25" core thickness
- All aluminum construction



COBRA PARTS

# GAUGES

# MASTERPIECE GAUGE COLLECTION

## M-19017-A961 GOLD BEZEL SERIES (KIT) ①



Nil

Pressure

Gauge



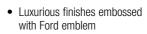


Speedometer





Battery Voltage Gauge



- · Gold design with cream background, beige sweep zone, dark brown graphics and needle-style pointer
- · Chrome design with white background, gray sweep zone, black graphics and needle-style pointer
- · Chrome design with black background, white graphics and needle-style pointer
- · Includes all components necessary to install
- Electronic operation, except • Speedometer, which is mechanical. Case diameter is 3-1/8" (speedometer) and 2-1/16" (water, oil, fuel and battery)
- Fuel-level sender compatibility is 240 OHM empty 33 OHM full - 12 volt
- · Fuel-level sender is adjustable from 6" to 23"
- Speedometer, oil pressure gauge and sender, water temperature gauge and sender, fuel level gauge and sender and battery voltage gauge

#### NOTES:

- ① 5-gauge kits include: speedometer, oil pressure gauge and sender, water temperature gauge and sender, fuel level gauge and sender and battery voltage gauge.
- ② Tachometer is not included in 5-gauge kits. Only available individually.
- ③ Needles do not zero.



Water

Water

Temperature

Gauge



M-19017-B961 CHROME BEZEL SERIES (KIT) ①





Fuel Level Gauge

Fuel

Level Gauge

Fuel

Level Gauge

Batterv Voltage

Pressure Gauge

Temperature Gauge

Speedometer



# M-19017-C961 BLACK FACE SERIES (KIT) ①



Oil

Pressure

Gauge



Water

Temperature

Gauge



Batterv Voltage Gaude

Gauge



# **MASTERPIECE CLOCKS\***

Speedometer

M-15000-A961 Gold M-15000-B961 Chrome M-15000-C961 Black \*Not included in this kit, but individual units are available. Case diameter is 2-1/16".



#### **TACHOMETERS**

M-17360-A961 Gold 23 M-17360-B961 Chrome 23 M-17360-C961 Black 23 \*Not included in above kits, but individual units are available. Case diameter is 3-1/8".

- The following replacement parts are available:
  - Light bulbs
  - · Sending units
  - Adapters

Please call the Tech "Hot Line" at (586) 468-1356.

# GAUGES AND TACH DRIVER



M-9278-A200

oil pressure

0-100 PSI

gauge

2-1/16" mechanical

#### FORD RACING COMPETITION GAUGES

Ford Racing is proud to introduce our new line of competition style gauges, gauge cages, and gauge pods. These new, high quality gauges, available in 2-1/16" and 2-5/8" diameters along with our new 5" tachometer with shift light, all sport the new red and blue Ford Racing logo on a white background with black numerals. The gauge cages are made of aluminum with a matte black finish to complement the gauge bezels and are assembled with Allen bolts. The gauge pods are made of a tough plastic that resists warping and cracking and are custom fit to each application making them easy to install and a perfect fit.



M-10835-A200 2-1/16" electrical voltmeter gauge 8-18 volts



M-10835-A258 2-5/8" electrical voltmeter gauge 8-18 volts M-9275-A200 2-1/16" mechanical fuel pressure gauge 10-100 PSI



M-9275-A258 2-5/8" mechanical fuel pressure gauge 10-100 PSI M-10883-A258 2-5/8" mechanical water temperature gauge 140°-220°F

M-10883-A200

2-1/16" mechanical

water temperature

gauge

140°-220°F

M-11622-A258 2-5/8" mechanical boost pressure gauge 30" HG-20 PSI

M-11622-A200

2-1/16" mechanical

boost pressure gauge

30" HG-30 PSI



2-5/8" mechanical oil pressure gauge 0-100 PSI

### FORD RACING COMPETITION SHIFT LIGHT TACHOMETER

Our Ford Racing 10,000 RPM tachometers are designed and built for professional competition. They are fully electronic and do not require a tach-drive distributor for hook-up. They can be adapted to 4-, 6- and 8-cylinder engines and used with Ford, MSD, and most other electronic ignition systems. Ties into dash lights for night driving.

#### CHECK THESE OUTSTANDING FEATURES:

- Accurate, dependable readings up to 10,000 RPM
- Quick response, without pointer flutter
- · Bold 5" diameter dial with bright red pointer
- Easy-to-read black numbers and graduations on white background with red needle and Ford Racing or Ford SVO logo
- Bright lighting for night racing
- Comes with all hardware, including shockresistant mounting and bracket
- Driver adjustable shift point
- "Dial-in" shift point accuracy
- Push-button recall for verification
- High intensity light for no-look shifting NOTE: 1999 and newer vehicles will require additional components, sold separately.





M-17360-A200 SVO logo M-17360-A201 Ford Racing logo

> CHASSIS COMPONENTS

#### **TACH DRIVER** M-17361-A200

Due to the sophisticated engine electronics found on many of today's popular automobiles (including the Ford Mustang and the Ford Focus), performance-oriented owners have discovered that their favorite aftermarket tachometer may not function properly. Discover the Ford Racing Tach Driver.

The Ford Racing Tach Driver is a compact, state-of-the-art electronic device designed to provide a compatible signal required for the proper operation of Ford Racing Tachometers as well as other popular aftermarket tachometers. The Tach Driver is required for installing an aftermarket tachometer in most 1999 and newer 4,6,8 or 10-cylinder Ford-powered vehicles with a crankshaft position sensor and coil on plug (COP) or distributorless (DIS) ignition systems.

The Ford Racing Tach Driver is:

- Recommended for use with either of the Ford Racing Competition Shift Light Tachometers, part numbers M-17360-A200 or M-17360-A201 or any of the Ford Racing Masterpiece Gauge Set tachometers, part numbers M-17360-A961, M-17360-B961 or M-17360-C961
- Engineered to withstand the harsh vibrations and severe environmental conditions of under-hood installation
- Packaged with easy-to-follow instructions for quick installation
- Compatible for use with RPM activated switches

# TEMPERATURE ACTUATED

#### M-1884-A249\*

- Switch is set to make contact at 249° F and above
- It can be adjusted by turning the conductor post up or down
- Rated at 250mV
- Intended to trigger a relay



# GAUGES

#### FORD RACING DUAL GAUGE CAGE

(DOES NOT INCLUDE GAUGES) M-17550-C200 1987-93 Mustang 2-5/8"



#### FORD RACING GAUGE POD (DOES NOT INCLUDE GAUGES) M-17550-C300 1987-93 Mustang 2-5/8" triple gauge cage



#### FORD RACING GAUGE POD (DOES NOT INCLUDE GAUGES) M-17655-M200

1994-03 Mustang 2-1/16" dual-gauge dash pod



FORD RACING GAUGE POD (DOES NOT INCLUDE GAUGES) M-17655-M300



# FOCUS GAUGE POD

- M-17556-FR202
- 2 1/16 dual gauge full length pillar pod
- Fits 2000-04 Focus
- · Gauges sold separately

#### M-17556-FR203

- 2-1/16 triple gauge full length pillar pod
- Fits 2000-04 Focus · Gauges sold
- separately

## FORD RACING MUSTANG STEERING WHEEL

M-3601-B Fits 1994-04 Mustang V-6, GT and Cobra.

Features thicker, racing-style rim section, covered in perforated and smooth black leather. Uses OE airbag and cruise control switches (not included). Direct replacement for OE steering wheel.

### 2-1/16" DUAL GAUGE POD PILLAR MOUNT

(DOES NOT INCLUDE GAUGES) M-17550-FR2 Focus 2000-04 M-17555-M200 1979-93 Mustang

M-17555-M201 1994-02 Mustang M-17555-T200 1987-96 F-Series Truck







FORD RACING

M-17556-M200

for hard top only.

**DUAL GAUGE POD** 

dual gauge pod, full length cover

(DOES NOT INCLUDE GAUGES)

1987-93 Mustang 2-1/16"

**FORD RACING** 

(DOES NOT INCLUDE GAUGES)

dual gauge pod, full length cover

GAUGE POD

M-17556-M201 1994-02 Mustang 2 1/16"



#### HARLEY BOOST GAUGE M-11620-H200

- Designed for 2002-03 Limited Edition Supercharged Harlev-Davidson F-150
- 30" HG-Vac./20 psi boost
- Includes all necessary installation hardware and instructions •
- Gauge face similar to Harley gauge faces with Ford Racing logo ٠
- Mounts on steering column



1987-93 Mustang 2-5/8" dual gauge and 5" tach dash pod

# **ACCESSORIES**





INC

# FORD RACING APPAREL AND ACCESSORIES

Show your Ford Racing pride with AUTHENTIC Ford Racing apparel and accessories. Made from the highest quality materials, Ford Racing shirts and hats give you years of comfort and durability. Available in sizes medium through XXL.

FORD RACING T-SHIRT WHITE 100% COTTON M-77100-M M-77100-XL M-77100-XXL M-77100-L

FORD RACING T-SHIRT NAVY 100% COTTON M-77101-M M-77101-XL M-77101-L M-77101-XXL

FORD RACING T-SHIRT GRAY 90%/10% COTTON/POLYESTER M-77102-M M-77102-XL M-77102-L M-77102-XXL

OPERTY OF



FORD RACING POLO **RED** 100% COTTON M-77121-M M-77121-XL M-77121-L M-77121-XXL

FORD RACING POLO NAVY 100% COTTON M-77122-XL M-77122-M M-77122-L M-77122-XXL

FORD RACING POLO GRAY 87%/13% COTTON/POLYESTER M-77120-M M-77120-XL M-77120-L M-77120-XXL





FORD RACING CHECKERED CAP M-77502

CAP - NAVY M-77503







# **ACCESSORIES**

### FORD RACING MUSTANG FLOOR MATS

M-13086-B 1994-04 M-13086-C 2005-06

- Constructed with 18 oz. nylon with PVC backing
- Factory-style anti-slide hook hole and bottom grip knobs
  Black mats with 3-color
- Black mats with 3-color Ford Racing logo
- Kit contains 1 pair front floor mats



### E-Z UP® INSTANT SHELTERS®

Ford Racing E-Z UP® Instant Shelter® includes: top, frame and cover bag.

M-1827-T10         10' x 10'         Blue         White Ford Racing           M-1827-T15         10' x 15'         Blue         White Ford Racing           M-1827-T20         10' x 20'         Blue         White Ford Racing	PART NUMBER	SIZE	COLOR	LOGO
	M-1827-T10	10' x 10'	Blue	White Ford Racing
M_1827_T20 10' x 20' Plue White Ford Paping	M-1827-T15	10' x 15'	Blue	White Ford Racing
M-1027-120 TO X 20 Dide While Fold Racing	M-1827-T20	10' x 20'	Blue	White Ford Racing

#### ACCESSORIES

Ford Racing E-Z UP® Instant Shelter® Sidewall with large Ford logo.

PART NUMBER	SIZE	COLOR	LOGO
M-1827-W10	10' Sidewall	Blue	White Ford Racing
M-1827-W15	15' Sidewall	Blue	White Ford Racing
M-1827-W10	(2) 10' Sidewalls*	Blue	White Ford Racing

\*Two 10' sidewalls are required to cover a 20' section.

#### ORDER THESE PRODUCTS FROM ANY FORD RACING DEALER. NO RETURN ON SPECIAL ORDERS.



## **"FORD RACING" BANNER**

**M-1827-A1** "Ford Racing" (68" x 28")

- Illustrated Strut your stuff with these
- multi-purpose banners
- Ideal for races, car shows, car clubs, promotions, garage, or den
- White with blue lettering on heavy gauge plastic
- Has 5 brass grommets and tie straps



#### "FORD RACING" 50-FT. PENNANT STRING M-1827-P1

- Ideal for races, car shows, car clubs,
- promotions, garage, or den
- White with blue lettering on heavy gauge plastic



#### **"FORD" OVAL DECALS**

Pressure-sensitive OEM quality, hi-gloss, cast vinyl material. Available in five sizes. Blue background with white "Ford" script.

PART NUMBER	OVAL LENGTH	QTY. PKG.
M-20000-D100	3.5"	12
M-20000-D101	5.5"	12
M-20000-D102	8.5"	12
M-20000-D103	13.5"	8
M-20000-D104	21.5"	4



### **"FORD RACING" DECALS**

Pkg. of 10 **M-1820-A2** Medium 7" x 3-3/4" **M-1820-A3** Large 9-3/8" x 5-3/8" "Ford Racing" decals with adhesive backing that easily peels off for fast application. Available in two sizes.



#### "FORD RACING" MINI-DECALS Pkg. of 25

M-1820-B1

Single sheet of "peel-off" vinyl decals. Includes 4 small, 1 medium and 1 large decal. Overall size of group—approximately 6" x 1-3/4". White with blue "Ford" and red "Racing."







# ACCESSORIES AND BOOKS



#### THE OFFICIAL FORD MUSTANG 5.0L 1979-93 TECHNICAL REFERENCE & PERFORMANCE HANDBOOK

M-1832-Z4 440 pages, 272 photos

- Complete door tag and VIN translations, plus V-8 engine, transmission and rear end codes.
- A year-by-year (1979-93) review of what Ford built, with a breakdown of powertrain and driveline specs for V-8 Ford Mustang and Mercury Capri models. Restorers! Read this reference guide before you turn a wrench.
- Critical specs and detailed data on all production 5.0L HO and GT-40 engine hardware including blocks, cranks, pistons, rods, heads, cams, intake, ignition, exhaust and cooling systems, as well as all factory-fitted transmissions and rear ends, plus suggested upgrades.
- Complete specifications on original equipment suspension, braking and steering systems, as well as popular improvement paths and equipment.
- Comprehensive coverage of the limited-production 1993 Mustang Cobra and the already rare 1993 Cobra "R" model.
- A complete review of "Fox"-body Mustang police cars, with detailed discussions of their Special Service systems and equipment.
- Parts and systems replacements include interchangeability, conversions and swaps. Handson tips and tricks reveal low-cost horsepower sources. Analysis of the most effective approaches to improving a 5.0L Mustang's output: supercharging, nitrous-oxide, turbocharging and increased displacement.
- Owners of 5.0L 1994-95 V-8 Mustangs and 1996 and later Explorers and Mountaineers will find applicable cross-over data in the coverage of Ford's fuel-injected small block V-8.
- Technical service bulletins.

# STAINLESS STEEL HOOD LATCH & PIN KIT

- M-16700-A
- That "competition look" you've always wanted is now available from Ford Racing
- This is the original hood latch kit used on early Mustang and Fairlanes
- This is the finest kit made. All parts are stainless steel (will not rust) and includes heavy-duty lanyards
- Can be used on original, or all aftermarket fiberglass hoods

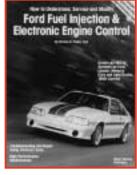
#### HIGHWAY SAFETY KIT M-19515-A

- Remember safety is always first at Ford Racing!
- Remember safety is always first at Ford Racin
   Silkscreened with Ford Racing logo
- Includes flares, first aid kit and emergency triangle reflectors



#### FORD FUEL INJECTION AND ELECTRONIC ENGINE CONTROL: BOOK 1988-93 M-1832-Z1

- Get the most from your Ford EFI system.
- Written with assistance of Ford Racing engineers.
- Special chapter filled with definitive recommendations and "inside tips" for high performance tuning of the



Ford EEC-IV system.

- Most up-to-date information available. Covers everything from theory of operation to diagnostics and service.
- More than 400 pages and 500 photos and illustrations. Includes EEC-IV diagrams and hundreds of specifications.

### FORD RACING MECHANICS GLOVES

M-1824-A Medium

- M-1824-B Large
- M-1824-C X-Large
- Ford Racing mechanics gloves are manufactured to high-quality standards by Pit Crew Gear<sup>®</sup> for professional mechanics
- Lined Spandex<sup>®</sup> top for flexibility and comfort
- Durable synthetic leather palm with reinforced protection in vulnerable areas of the hand
- Added top vinyl shields protects the top of hands with elastic hook and loop cuff tabs for easy adjustable fit
- Ergonomically designed double padded synthetic leather palm with sewn in soft neoprene pads for insulated protection



# TOOLS

#### 4WD LOCKNUT SOCKET SET M-1197-T4543

- For removal and installation of axle locknuts on Ford Trucks
- Kit contains 5 sockets with 1/2" square drive and FWD front spindle puller
- Spindle puller fits spindle thread sizes 2"-16, 1-5/8"-16, and 38mm-1.5
- Fits high-shear rotating nuts on 1985–newer F-250 and F-350 truck rear axles, and Dana 80 rear axles of Ford Super Duty trucks
- Fits front axle locknuts on 1986-newer F-Series 1/2-ton trucks, full-size Bronco with Dana 44 axle, 1984-92 Ranger, and Bronco II with manual hubs.
- Fits front axle locknuts on 1978-84 F-Series 4WD heavy-duty 3/4and 1-ton trucks
- Fits front axle locknuts on 1993-newer Ranger, Bronco II, and Explorer with manual hubs. 1995-newer F-Series 1/2-, 3/4- and 1-ton trucks and full-size Bronco with manual hubs. 1959-85 F-Series 1/2- and 3/4-ton trucks and full-size Bronco with manual hubs

#### BRAKE CALIPER PIN REMOVAL TOOL M-2300-T7299

 This tool is the damage-free way to remove caliper pins from 1986-88 E- and F-Series, 1983-88 Ranger and 1984-88 Bronco II



# REAR DISC CALIPER RETRACTION TOOL

#### M-2588-T7317

- Use to properly retract the caliper piston when changing brake pads in vehicles with rear disc brakes equipped with internal parking brake mechanism
- Universal kit fits most Fords, some GMs and others



#### PINION AND DIFFERENTIAL BEARING PULLER

#### M-4209-T7794

- Enables you to remove pinion bearings and carrier bearings on RWD and 4WD differentials
- Allows damage free removal of bearings
- For use on Ford 6.75", 8.5", 8.7", 9" and Dana 28, 30, 35, 44, 50, 60, 70, 70HD and 80 differentials
- Also fits many other applications



 Kit includes slide nammer and attachments for removing rear axles



# DIFFERENTIAL HOUSING SPREADER TOOL

#### M-4010-T7071

- Simplifies the removal and installation of ring and pinion gears and differential assemblies
- Spreads the differential housing on 7.5", 8.8" and Dana 30 through 70 axle housings
- Highly recommended on Cobra aluminum 8.8" IRS housings
- Helps prevent component damage that often results from using "homemade" devices



#### EXHAUST HANGER REMOVAL TOOL M-5230-T7677

- Unique pliers for removing push-through exhaust hangers from rubber isolating blocks
- Makes it easy to change factory and Ford Racing exhaust systems







#### **1,000-LB. CAPACITY ENGINE STAND** M-6001-T1726

- Capable of supporting engines up to 1,000 lbs. • Engine can be rotated a full 360° with a turn of the handle
- Locking pin secures the work in any of eight positions •
- Easy one-bolt disassembly for transport of stand ٠
- Meets ANSI PALD for safety and quality •
- Made in USA. Covered by Lifetime Marathon Warranty®
- · Weighs 96 lbs.



## 4,000-LB. CAPACITY FOLDING **ENGINE HOIST**

#### M-6001-T2004

- 4,000-lb. capacity engine hoist with a reach of 25" to 46"
- Maximum capacity, boom retracted: 4,000 lbs.
- Maximum capacity, boom extended: 1,000 lbs.
- · Maximum height, boom extended: 104"
- Folds up for compact storage, 16" x 18" floor space



# **TORQUE ANGLE GAUGE**

#### M-6015-T4554

- · Measures angle of rotation after pre-torque in torque-angle applications A must when tightening
- torque-to-yield fasteners 360° scale marked in
- 2° increments

M-6256-T6486

Has 1/2" male and female square drives



#### **MODULAR ENGINE CAM TIMING** TOOL KIT

#### M-6256-T6487

- Includes 3 cam positioning tools and 1 cam holding tool
- For use on all modular 4.6L and 5.4L V-8 and 6.8L V-10 engines
- Includes molded
- storage case

# **CRANKSHAFT POSITIONING TOOL**

M-6303-T6024

- For use on 1993 and newer modular 4.6L 2V and 4-V. 5.4L 2V and 4V. and 6.8L V-10 engines
- Should be used in conjunction with cam alignment tool M-6303-T6024
- Necessary to eliminate valve to piston interference during disassembly and assembly

### **ENGINE PRE-OILEF**

#### M-6600-T6492

- · Required to prime engines with crank-driven oil pumps
- Prime your engine through the oil pressure sending unit port
- Perfect for modular engines that have crank-driven oil pumps
- Prevents engine damaged caused by only using starter motor to prime oiling system



# TOOLS

# **REAR MAIN SEAL INSTALLATION TOOL**

#### M-6701-T7786

- · Accurately ensures correct depth on crankshaft seal Attaches to crankshaft to press seal in evenly
- 4-cylinder applications: 2.0, 2.3, 2.3 OHC, 2.5, 2.5 OHC
- V-6 applications: 3.0, 3.4 SOHC, 3.8
- V-8 applications: 4.6, 5.0, 5.8



# CLUTCH COUPLING TOOL FOR 1988 AND NEWER TRUCKS M-7553-T7646

## • Disconnects hydraulic clutch line from hydraulic slave cylinder

- Works on 1988-present F-series, Bronco, Bronco II, Ranger and Explorer
- · Works on 1989-97 Thunderbird and Cougar



# PILOT BEARING PULLER TOOL

M-7600-T7318

- Designed to pull pilot bearings in areas a slide hammer will not fit
- Fits 1/2" to 1-1/2" ID



#### **TRANSMISSION LINE DISCONNEC TOOL KIT** M-9500-T7798

- Kit contains 2 tools
- Disconnect tools for transmission quick-connect fittings on most late model Fords
- Releases the finger on the transmission to radiator oil cooler line without damaging the hose or connector
- · Works on some oil cooler lines also





# **POWER STEERING PULLEY REMOVER/INSTALLER**

#### M-10300-T7830

- Kit contains necessary tools for removal and installation of power steering pump pulleys on most Ford vehicles Also works on many
- non-Ford vehicles

## FUEL PRESSURE GAUGE TOOL WITH HOSES

### M-9593-T7211

- Includes 30" pressure hose and 6' bleed hose
- Includes fittings and 0-100 PSI easy to read 3-1/2" diameter pressure gauge
- Professional quality

#### FUEL INJECTOR CLEANER M-9593-T7448

- The most effective method of cleaning fouled injectors
- · Connects to your shop's pressurized air supply
- Includes gauge, 72" hose, underhood hanger and instruction manual





# **FUEL PRESSURE GAUGE TOOL**

- M-9593-T6551
- Includes adapter for Schrader
- valve and -4 fittings · Allows you to check fuel pressure and fuel volume
- Professional quality



### **FUEL LINE DISCONNECT TOOL**

M-9280-T7337



- **3-TON STINGER JACK STANDS**
- M-17080-T1772 • 3-ton (6,000 lb.) capacity
- Stands conform to ANSI PALD-4 load rating standard; factory tested before shipment
- Height range: 11" to 17-5/8"
- Sold in pairs

- · Easily disconnects spring lock fuel line fittings
- · Spring loaded and durable
- The design encloses the line to help deflect spray during disassembly



### **3-TON CAPACITY RATCHETING JACK STANDS**



- M-17080-T1733
- Manufactured by OTC for Ford Racing
- 3-ton (6,000 lb.) capacity
- These jack stands feature a formed-steel frame for strength and long life, and rolled-base edges that resist sinking into asphalt
- · Recessed column saddle for acceptance of vehicle panel rail (pinch weld)
- Made in USA, covered by Lifetime Marathon Warranty®
- · Stands conform to ANSI PALD-4 load rating standard
- Height range: 12-1/2" to 18-1/2
- Sold in pairs

#### **3-TON QUICK LIFT JACK** M-17080-T1739

- 3-ton (6,000 lb.) lift capacity
- · Unsurpassed speed to load-extends to maximum height in 3 strokes
- · Fastest fully loaded rise available-provides more than 1" lift per stroke under maximum loading

Die

- Lifting range from 4" to 24-1/2"
- · Padded jack handle
- · Blue with "Ford Racing" logo
- Low handle angle ensures full jack performance while viewing the load from the ground
- · Strongest frame and largest power unit in its class
- Weighs 125 lbs.
- · Meets ANSI PALD Part 10, for safety and quality
- Made in USA. Backed by OTC's Lifetime Marathon Warranty







These tools release the retaining clips of the radio faceplate allowing you to pull the radio from the instrument panel



## **AIR CONDITIONING DISCONNECT TOOLS**

#### M-19623-T7238

- Quickly separates spring lock refrigerant lines and some spring lock fuel rail couplings
- Set of four: white, red, blue and black





# FOCUS

# A MESSAGE FROM THE TEAM AT FORD RACING PERFORMANCE PARTS

It's time to drive. Time to hit the street or track in your own style. On your own terms. You choose the parts and accessories that define your ride. And say something powerful about the road you take through life. Forget traditional. This is a revolt. It's an announcement that you're not afraid to stand up to anyone. It's more than an engine revving. It's the sound that you know what you're all about. And you like it.

Okay. Sometimes we get a little carried away. But we will build something important here. A new way to think about the cars we love. We're taking things beyond "sport compact" to a new level of enthusiasm and performance.

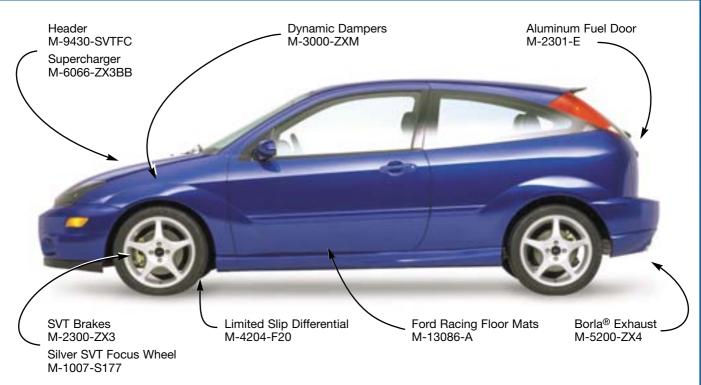
Look, the people who work at Ford Racing Performance Parts are a lot like you. We understand that this is not just a hobby. It's an obsession. A lifestyle. And a chance to rise above the competition. Install Ford Racing Performance Parts and you'll get all the benefits of more than a century of road-tested, expert experience. Perfect fits, every time. Higher quality. The confidence of knowing that the people who built your car also built your parts.

So go fast. Look good. And never settle for second.









The sport compact market is driven by the idea of go-fast parts. Unfortunately, to many aftermarket players, going fast and looking fast are the same thing. Ford Racing Performance Parts is your one stop for performance parts that work! Our updated supercharger kits, camshafts/valvetrain, headers and intake all add up to horsepower. Add excellent handling and braking kits to that newfound power and you've got the total package. If you need "the show," look elsewhere...but when you want "the go" it's FRPP!



# ENGINE COMPONENTS

#### **ICEMAN COOL AIR SYSTEMS**

M-9659-Z20\* M-9659-Z3\*

M-9659-Z28\* Escort ZX2 1998-99 Escort ZX2 2000-01

Focus ZX3 Manual and Auto Transmission Deliver cooler, denser air more efficiently with an Iceman Cool Air System from Ford Racing. Smooth bore air inlet tubes made from a durable cross link polyethylene reduce heat transfer from the engine bay to the inlet charge while reducing air flow restrictions and bottlenecks. Air flow to the

air filter, mass air sensor and throttle body is thereby significantly improved. Kits include all necessary inlet tubes, attachment tubes, clamps and instructions. Easy to install and easy to keep clean.



#### **9MM SPARK PLUG WIRE SETS -"FORD RACING"**

Wire-wound Custom Ignition Wire Sets feature low resistance for minimum spark loss. Silicone insulation and boots withstand high temperatures and voltage loss for minimum crossfire and are highly resistant to fuels, oils and solvents. Long-life, tough stainless steel terminals for "post" type distributor caps. Includes coil wire for socket-type coil and "Ford Racing" identification. Cylinder number appears on each wire.

#### NEW AND IMPROVED

Spark plug wires feature high-quality 9mm wire available in three colors: blue, yellow and red.

PART NUMBER	APPLICATION	WIRE Color	END Config.	WIRE DIA.
M-12259-FR2**	2.0L Focus ZX3/Escape	Blue Long Boo	45° ot	9mm
M-12259-RF2**	2.0L Focus ZX3/Escape	Red	45° Long Boot	9mm
M-12259-YF2**	2.0L Focus ZX3/Escape	Yellow	45° Long Boot	9mm



#### **COATED LONG TUBE SVT FOCUS** HEADER M-9430-SVTFC\*

- · Original equipment header, ceramic coated for heat resistance and durability
- 4-2-1 design is engineered to correctly collect the exhaust pulses resulting in minimum turbulence and maximum horsepower
- T-409 stainless steel construction •
- Fits 2002-2004 2.0L SVT Focus ZX3/5

# ZETEC HIGH PERFORMANCE AIR FILTER

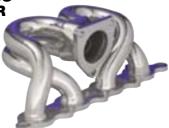
M-9601-FR2\*\* Focus ZX3/Escape 2.0L

Produced to Ford Racing Specifications, this direct replacement air filter element reduces restriction in the intake system. The filter is designed to be reusable when cleaned and re-oiled.



#### FORD RACING FOCUS 2.0L ZETEC HEADER M-9430-ZX3C\*

Designed by Ford Racing engineers for improved scavenging and exhaust flow, this header is an excellent choice as a direct replacement for the production 2000-04 exhaust manifold. Fits to stock catalytic converter. Manufactured with 409 stainless



steel mandrel bent tubes and laser cut flanges, then coated with Jet Hot® Sterling ceramic finish for long-lasting beauty and durability.

#### FOCUS LONG TUBE HEADER KIT M-9430-ZX3L\* M-9430-ZX3LC\* Coated



The 2000-04 Focus 2.0L Zetec long tube header kit ncludes a modified Focus SVT long tube 409 stainless steel header, modified SVT heat shields, revised EGR tube, SVT dipstick and tube. Use with production Focus SVT catalyst part number 2M5Z-5E212-AA and flex pipe part number 2M5Z-5G203-AA sold separately. For maximum performance use with aftermarket catback exhaust system.





#### ZETEC 4-CYLINDER DOHC 2.0L 16V STREET PERFORMANCE CAMSHAFTS



		VALVE LI	FT	DURATIO	)N @ .050"	ADVERT	ISED DURATION	LOBE	
PART NUMBER	DESCRIPTION	INT.	EXT.	INT.	EXT.	INT.	EXT.	SEPARATION	
M-6252-A201*	Good low-end power, strong midrange. Automatic or manual transmission. For maximum HP and RPM use low restriction aftermarket air intake and header with free-flow exhaust. Extract hidden HP and torque with Ford Racing adjustable cam sprockets. RPM range idle to 6,500.	9.5mm (.374")	9.3mm (.366")	210°	206°	232°	228°	110°	
M-6252-A202*	Stout Street/Track profile. Manual transmission with headers and free-flow exhaust. Extract hidden HP and torque with Ford Racing adjustable cam sprockets. RPM range: 2,000–7,000.	9.7mm (.382")	9.5mm (.374")	210°	210°	232°	232°	109°	
M-6252-A203*	Radical Street/Strip profile. Manual transmission with headers. CNC ported head with port matched intake. Increased compression recommended: 10.5:1–12.0:1. Excellent power naturally aspirated PLUS super nitrous cam or with supercharger. RPM range: 3,000–8,000.	9.9mm (.390")	9.9mm (.390")	218°	218°	240°	240°	110°	

#### 2.0L ZETEC ADJUSTABLE **CAMSHAFT GEAR**

M-6256-Z20\* Fits ZX2, ZX3 and

Escape (one per pack) 2.0L Zetec adjustable camshaft gear provides +/-10 degrees change in camshaft timing. Lightweight aluminum design. Hard anodized outer half for long life. Blue anodized inner half with Ford logo. Stainless steel bolts and washers included. Bolt on installation when used on intake and/or exhaust cam of Focus ZX3 and Escape 2.0L Zetec engine and intake cam

of Escort ZX2 2.0L Zetec engine. Requires use of cam gear adapter when used on exhaust cam of Escort ZX2 2.0L Zetec engine. A must for any 2.0L camshaft work.

#### PERFORMANCE ZETEC **INTAKE MANIFOLD** M-9424-ZX3R\*

- · Inspired by the intake on the FR200 show cal
- · Bolts in to stock location with all fittings and EGR
- Requires M-9926-ZX3R throttle body
- · Increased flow makes this the best manifold on the market for forced induction or high-revving Zetec engines
- Fits 2000-2004 2.0L Zetec equipped ZX3/4/5/W

### 2.0L ZETEC LIGHTWEIGHT **UNDERDRIVE CRANK PULLEY KITS**

M-8509-ZX2\* Escort ZX2 2.0L Zetec

M-8509-ZX3\* Focus ZX3, ZX5, and Escape Improves performance by reducing horsepower required to drive accessories. Pulley anodized Ford Racing blue with Ford logo. Kit contains new, lightweight aluminum crankshaft pulley and accessory belt. **NOTE:** May require minor modification to front cover.



**70MM THROTTLE BODY** FOR PERFORMANCE ZETEC **INTAKE MANIFOLD** M-9926-ZX3R\*

Designed to be used with performance manifold M-9424-ZX3R.





# ENGINE COMPONENTS

#### FOCUS ZX3 2.0L ZETEC CNC'D ALUMINUM HEAD

- M-6049-ZX3P\* Assembled Head
- Fits 2000-04 Focus ZX3 2.0L
- CNC'd for flow improvement and includes 3-angle valve job
- Cast from prime 319
   aluminum
- Assembled with 21-4N stainless steel intake and exhaust valves, production
- valve springs and retainers (tappets, cams and cam seals not included)
- Intake valve diameter: 33mm, Exhaust valve diameter: 30mm
- Chamber volume 47.7cc (nominal)
- Bare head weighs 28.3 lbs.
- · Production intake and exhaust manifolds bolt on

#### TYPICAL AIRFLOW (@ 28" OF H<sup>2</sup>0 DEPRESSION) AS DELIVERED

LIFT	INTAKE FLOW (SCFM)	EXHAUST FLOW (SCFM)
.050	38.0	32.8
.100	80.7	74.9
.150	119.1	109.1
.200	153.7	144.6
.250	181.0	167.9
.300	193.0	186.0
.350	204.8	188.5
.400	214.0	193.1
.550	220.3	195.2

#### 2.0L ZETEC INTAKE AND EXHAUST VALVES



#### Swirl polished, 21.4N premium stainless steel intake

and exhaust valves for high-performance cylinder head applications. Requires cylinder head to be modified to accept bigger valves; will not work in production heads.

- M-6505-ZX3\* Exhaust Valve
- Service replacement for the CNC'd Ford Racing Zetec cylinder head M-6049-ZX3P

# 30mm diameter

- M-6507-ZX3\* Intake Valve
- Service replacement for the CNC'd Ford Racing Zetec cylinder head M-6049-ZX3P
- 33mm diameter



# CNC PORTED DURATEC CYLINDER HEAD

#### M-6049-D23P\*

- High flow Duratec cylinder head casting from 2.3L Duratec engine
- · CNC porting increases flow 15% on intake and exhaus
- Accepts stock valve train
- Must have upgrade for forced induction or low flow 2.0L Duratec head



# ZX3 VALVETRAIN KIT

#### M-6090-ZX3\*

- Springs will work with most cams up to .410" lift
- Includes springs and retainers
- Designed for high RPM and performance usage
- Used on upgraded M-6049-ZX3P cylinder head



#### ZETEC HIGH LIFT VALVESPRING SET M-6513-ZX3E\*

- Springs will work with most cams up to .450" lift
- Works with most high lift aftermarket Zetec cams
- Can be changed on vehicle, NO MACHINING REQUIRED
- Includes valve springs and retainers





# BRAKES



# FOCUS RS BRAKE AND SUSPENSION KIT

#### M-2300-RS\*

- Derived from Focus RS, this kit fits 2000-04 ZX3/4/5 manual transmission only
- Requires factory ABS
- · Requires RS body kit or equivalent to provide adequate tire/wheel assembly clearance
- Kit requires calipers be purchased separately
- Caliper kit M-2300-B requires minimum 18" wheel, M-2320-F, M-2320-AF, and M-2320-C require minimum 17" wheel
- Kit includes springs, dampers, front knuckles, front hubs, rear spindles, half shaft assemblies, 12.75" front rotors, 11" rear rotors, rear calipers, mounting hardware and instructions
- Front hubs, front knuckles and rear spindles have increased stiffness and bearing size over production
- Kit increases stopping power approximately 10% with Cobra type calipers, 15% with RS/ Brembo<sup>®</sup> calipers

LIMITED







• Kit includes 2 Brembo<sup>®</sup> 4-piston front calipers and pads

M-2300-B\*

- Designed specifically for M-2300-RS brake/suspension kit
- See M-2300-RS for more details



#### SVT FOCUS BRAKE KIT M-2300-ZX3\*\*



- Complete kit to put SVT Focus brakes on 2000-2005 ZX3/4/5 Focus
- Includes 300mm front rotors and 280mm rear rotors
- Includes all calipers and mounting hardware
- Includes front and rear knuckles





# ENGINE COMPONENTS

#### FOCUS ZETEC SUPERCHARGER KIT M-6066-ZX3BB\*

- Designed in conjunction with Jackson Racing exclusively for Ford Racing Performance Parts
- Uses Ford calibration and electronics, no fuel or electronics add-ons
- Includes new air meter, injectors, air box, calibration, intake manifold, supercharger and belt
- All installation hardware included
- · Revised calibration and Roots style blower results in instant response and a flat torque curve
- Requires shipping of stock PCM for reflash



#### FOCUS PERFORMANCE AIR BOX AND SNORKEL M-9659-SVTF\*

- SVT Focus air box and snorkel kit
- · Fits any model year Focus equipped with 2.0L Zetec engine
- Increased airflow over stock non-SVT airbox
- · Insulates incoming air charge from under hood heat more efficiently than the open element design
- MAF sensor not included ٠



#### SVT BOOST UPGRADE FOR JACKSON **RACING SUPERCHARGER** M-9000-SVTF\*

- For use with M-6066-20SVT to increase boost
- · Kit includes processor reflash, airbox and snorkel,
- new pulley, serpentine belt and 42 lb. injectors
- Stock processor must be shipped for reflash
- Ford calibration ensures instant throttle response and a flatter torque curve •
- Produces approximately 10 psi of boost
- Works on all 2002-2004 SVT Focus models



### **BOOST UPGRADE FOR JACKSON RACING** SUPERCHARGER KIT

#### M-9000-ZX3\*

- · For use with M-6066-ZX3 to increase boost
- · Kit includes processor reflash, airbox and snorkel,
- new pulley, serpentine belt, and 30 lb. injectors
- Stock processor must be shipped for reflash
- · Ford calibration ensures instant throttle response and a flatter torque curve
- Produces approximately 10 psi of boost



# EXHAUST COMPONENTS



# low back pressure muffler M-5200-D234\* ٠ **BORLA FOCUS SVT MUFFLER** · Performance tuned, Center rear exit • Requires SVT rear fascia Fits 2002-04 SVT

### **BORLA FOCUS MUFFLER**

#### M-5200-ZX3\*

• Fits 2000-04 Focus ZX3 and ZX5 with 2.0L ZETEC Performance tuned,

- M-5200-ZX4\*
- Fits 2002-04 Focus SVT ZX3 and ZX5
- low back pressure muffler

#### **BORLA 2.0L FOCUS SVT CENTER EXIT EXHAUST**

M-5200-ZXC\*

- Stainless steel Borla catback exhaust system
- (M-17835-F) and separate center exit rear diffuser M-17835-F1
- Focus 3-door/5-door and 2000-04 Focus ZX3 and ZX5 with 2.0L Zetec engines

### **BORLA 2.3L FOCUS CENTER** EXIT EXHAUST

- M-5200-D23C\*
- Stainless steel Borla catback exhaust system
- ٠ Performance tuned, low back pressure
- Center rear exit • Fits 2003-04 Focus
- ZX3 and ZX5 with 2.3L and 2.3L PZEV engines
- Requires SVT rear fascia (M-17835-F) and separate center exit rear diffuser M-17835-F1

# BORLA 2.3L FOCUS CATBACK EXHAUST

- M-5200-D23\*
- Stainless steel Borla catback exhaust system
- Performance tuned, low back pressure
- Fits 2003-05 Focus ZX3 and ZX5 with 2.3L engine

# **BORLA 2.3L FOCUS CATBACK SYSTEM**

- · Stainless steel Borla catback exhaust system
- Performance tuned, low back pressure
- Fits 2003-05 Focus ZX4 with 2.3L engine



#### **ESCORT ZX2 S/R HIGH FLOW MUFFLER** M-5230-Z2\*\* Fits Escort ZX2 S/R Performance tuned, low back pressure OEM muffler, with 3" chrome tip (can easily be replaced with

aftermarket tips). Direct replacement for production ZX2 S/R muffler. Has a deeper, more aggressive note.



### SVT FOCUS CENTER EXHAUST **DIFFUSER INSERT**

#### M-17835-F1\*

- This center insert is required when installing M-5200-ZXC or M-5200-D23C center exhaust
- Insert fits SVT Focus rear fascia (M-17835-F) only



# DRIVELINE COMPONENTS

### **TORSEN T-2 TRACTION DIFFERENTIAL** M-4204-F20

Featured on the 304 HP Ford Racing FR200 Focus, the Torsen T-2 Traction Differential for the MTX-75 transaxle is ideally suited for front wheel drive applications. Unlike conventional or speed sensing limited slip differentials, the Torsen T-2 is a full time torque-sensing, torque-biasing differential. Immediately responds to variable driving conditions providing better traction, acceleration and handling. Fits the Focus, Contour and Cougar MTX-75 transaxle without modification.



#### **SVT FOCUS TORSEN T-2 DIFFERENTIAL** M-4204-SVTF

- Similar to M-4204-T2 but for the SVT Focus Getrag 6-speed transaxle
- Torque-sensing, torque-biasing differential · Responds immediately to variable driving conditions
- Provides better traction, acceleration and handling than the factory open differential



• Fits 2002-2004 SVT Focus

#### 4.06 FINAL DRIVE KIT M-7343-A\*

- Fits Focus 2.0L Zetec, built after October. 2000 with MTX-75 transmission
- Update your Focus final drive ratio from 3.82 to 4.06

- (- Maria

Professional installation may be required



#### FOCUS TORQUE CONVERTER AND INPUT SHAFT KIT M-7902-FR\*

- Fits 2000-05 Focus with 4F27E transmission
- · Kit consists of torque converter with HD lock-up clutch lining, billet 23 spline input shaft and front drum assembly



- · Professional installation may be required
- 35% stronger than stock

### FOCUS TORQUE CONVERTER M-7902-FD\*

- Fits 2000-05 Focus with 4F27E transmission
- Designed for 16 spline input shaft
- HD lock-up clutch lining, billet 23 spline input shaft and front drum assembly
- Professional installation may be required

# RECALIBRATOR

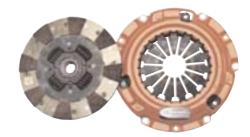
- M-9731-T01\* 2001-04 (Excpet P221) • Fits most Ford vehicles with
- square connector on speed sensor
- Corrects speedometer, odometer, ABS, cruise control systems and other calibration errors related to any changes in axle ratio or tire size



# **CENTERFORCE CLUTCH KIT**

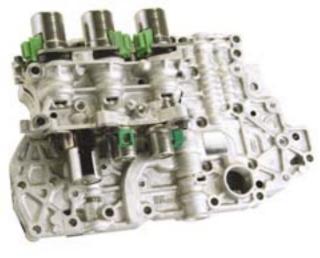
## M-7560-Z2 Escort ZX2

- M-7563-Z3 Focus ZX3 and ZX5
- Centerforce "Dual Friction" clutch system
- improves clamping force by more than 90%
- Improves clutch feel while maintaining easy pedal effort
- · Includes clutch disc and pressure plate
- Fits 2000-2004 2.0L Zetec Focus ZX3/4/5, not applicable to SVT



#### FOCUS RECALIBRATED VALVE BODY M-7100-FVB\*

- Fits 2000-05 Focus 4F27E automatic transmission
- "Performance oriented" shift feel
- Professional installation may be required
- Modified hydraulic pressure regulation to help compensate for quicker off idle torque curves







# SUSPENSION COMPONENTS |



#### FOCUS COILOVER SUSPENSION KIT FOCUS ZX3 ANTI-ROLL BAR KIT M-3000-Z3 M-5400-Z3 • Race Technology designed for the street · Complete your suspension update with a tuned anti-roll bar kit Lowers your Focus from 1.75" to 2.5" Add stability and cornering grip • Developed for the optimal balance of Red powdercoat finish • performance and comfort 22mm diameter front bar and 25mm diameter rear bar · New next generation construction for longlasting performance · Galvanized housings with true blue anodized hardware The ultimate suspension system for your Focus SVT FOCUS SUSPENSION KIT

#### M-3000-ZX3

- Fits 2000-04 ZX3, ZX4 and ZX5 Focus
- Original equipment on SVT Focus
- Upgrades your stock Focus suspension to SVT Focus
- Improved handling characteristics without ride degradation
- Reduced ride height approximately .5"

#### FOCUS STRUT KIT M-18120-Z3

Developed by the engineers at KW suspensions and Ford Racing, this Ford Racing Shock Kit is the ultimate suspension solution for your lowered Focus. Designed and valved for use with M-5350-Z3 Sport Lowering Springs. Tuned to tighten up the handling while maintaining ride comfort.



# ESCORT ZX2 TOKICO STRUT KIT

#### M-18000-Z2

Heavy duty Tokico struts performance tuned to match M-5560-Z2 Eibach® spring kit for ZX2 suspension. Provides improved body control with a firmer ride. Kit includes front and rear struts.



## FOCUS LOWERING SPRING KIT M-5350-Z3

Drop your Focus to a civilized level with KW Sport Lowering Springs from Ford Racing. Lower your Focus 1.6" and not only enhance the look, but improve the agility and handling of your daily drive.

# ESCORT ZX2 EIBACH® SPRING SET

M-5560-Z2 The Eibach® Pro-Kit spring set is a progressive rate spring set that lowers the ZX2 by approximately 1". The Pro-Kit will improve the vehicle's performance by controlling body roll, and provide a sportier appearance by reducing fender-well gap.





# CHASSIS



## FOCUS DYNAMIC DAMPER AND SPRING KIT



- Tuned for track and street use
- Dynamic brand dampers—same manufacturer as those on the Mustang FR500C race car
- Kit includes front struts, rear shocks, front and rear springs
- Lowers car approximately 1.5"
- Fits all years Focus, except wagon



# **ESCORT ZX2 ENERGY SUSPENSION® BUSHING KIT**

- Tuned urethane bushings with steel inserts for front lower control arms
- Improves suspension precision and control under racing loads



# **ACCESSORIES**



# TACH DRIVER

#### M-17360-A200

Due to the sophisticated engine electronics found on many of today's popular automobiles (including the Ford Mustang and the Ford Focus), performance-oriented owners have discovered that their favorite aftermarket tachometer may not function properly. Discover the Ford Racing Tach Driver.

The Ford Racing Tach Driver is a compact, state-of-the-art electronic device designed to provide a compatible signal required for the proper operation of Ford Racing Tachometers as well as other popular aftermarket tachometers. The Tach Driver is required for installing an aftermarket tachometer in most 1999 and newer 4,6,8 or 10-cylinder Ford-powered vehicles with a crankshaft position sensor and coil on plug (COP) or distributorless (DIS) ignition systems.

#### The Ford Racing Tach Driver is:

- Recommended for use with either of the Ford Racing Competition Shift Light Tachometers, part numbers M-17360-A200 or M-17360-A201 or any of the Ford Racing Masterpiece Gauge Set tachometers, part numbers M-17360-A961, M-17360-B961 or M-17360-C961
- Engineered to withstand the harsh vibrations and severe environmental conditions of under-hood installation
- · Packaged with easy-to-follow instructions for quick installation
- · Compatible for use with RPM activated switches





# FOCUS GAUGE POD

- M-17556-FR202
- 2-1/16" dual gauge full length pillar pod
  Eits 2000-04 Focus
- Fits 2000-04 Focus
- Gauges sold separately. See page 159

#### FOCUS GAUGE POD M-17556-FR203

- 2-1/16" triple gauge full length pillar pod
- Fits 2000-04 Focus
- Gauges sold separately. See page 159

# FOCUS DUAL 2-1/6" GAUGE POD PILLAR MOUNT

M-17550-FR2 Focus 2000-04

Ford Racing gauge pods are made of a tough plastic that resists warping and cracking and are custom fit to each application for easy installation and a perfect fit. Gauges are sold seperately. See page 159.



# CHASSIS COMPONENTS

#### FOCUS ZX3 STRUT TOWER BRACE M-20201-ZX3

- This high-quality strut tower brace is designed to stiffen Focus ZX3
- Installation instructions included
- Braces are "E" coated for corrosion resistance then painted black



# FOCUS BODY

# FOCUS HID HEADLAMP KIT

# M-13008-F201\*

- Fits 2000-04 Focus
- · Optional equipment on the SVT Focus
- · Kit includes left and right headlamp and custom installation harness
- FOR OFF ROAD USE ONLY



#### FOCUS PROJECTOR HEADLAMP KIT M-13008-F202

These cool headlamps are designed to directly replace the factory headlamps, and plug right into the factory wiring. Lamps are mounted in a rugged, black housing that can be painted for a custom look.



#### FOCUS RS FRONT FENDERS M-16015-RS

- Required for tire clearance when using
- Focus RS wheels on base model Focus All steel, original equipment on the Focus RS •
- Fits 2000-04 Focus ZX3
- · Will not work with stock front fascia. Check www.fordracingparts.com for RS fascia kits



#### FOCUS RS REAR QUARTER PANELS M-27846-RS

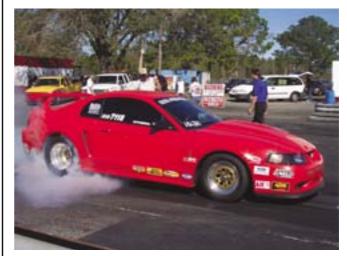
- Required for tire clearance when using
- Focus RS wheels on base model Focus • All steel, original equipment on the Focus RS
- · Extensive body work required to attach
- Fits 2000-04 ZX3
- Will not work with stock rear fascia. Check www.fordracingparts.com for RS fascia kits



#### FOCUS FOG LAMPS M-15200-F200

These foglights provide optimal vision and safety. They mount to the lower fascia of the front bumper and their original equipment design ensures a proper fit. Kit includes new lower grille for Focus.





Paul's High Performance 2000 Cobra "R" Mustang 5.0L DOHC "CAMMER" Engine 9.70 ET @ 137 MPH

# **ACCESSORIES**



#### FOCUS SVT PARKING BRAKE LEVER **AND HANDLE** M-2302-FSVT

- Fits all 2000-05 Focus
- Handle is unique perforated black leather and matches Focus SVT steering wheel

#### **ALUMINUM FUEL DOOR** M-2301-E

- Original equipment on 2001 Special Edition Mustang
- Fits 2000-05 Focus with modifications to the fuel filler neck plastic box
- Also fits 1999-04 Mustang and 1997-03 F-150 with round fuel door
- Manufactured by the OEM supplier, not a reproduction part

# **FOCUS RS SCUFF PLATES**

- M-13208-RS\*
- Original equipment on the Focus RS
- · Features RS logo
- Double sided tape for easy installation

FOCUS SCUFF PLATE

Made of high quality T304 stainless steel

• Fits 2000-04 ZX3

M-13208-F200 • Fits 2000-04 ZX3 Focus · Easy installation

Sold in pairs

•

•

· Sold in pairs

# ۲ B

LIMITED SUPPLY

## FOCUS RS STEERING WHEEL M-3601-RS

- Blue and black leather-wrapped steering wheel
- Original equipment on Focus RS
- Fits 2000-04 Focus
- Does not have provisions for cruise control •
- Retains use of original air bag



## FOCUS SVT STEERING WHEEL M-3600-F

- Black, thickset, leather-wrapped steering wheel
  Original equipment on 2003 Focus SVT
- Fits 2000-04 Focus •
- · Retains use of



# ACCESSORIES

# FOCUS SPEED CONTROLS

#### M-9818-F202 Tan M-9818-F203 Black

- · Micro-computer controlled system automatically adjusts the throttle to maintain your desired cruising speed
- Kit includes leather-wrapped steering wheel
- Fingertip controls conveniently located on the steering wheel
- Fits 2000-04 Focus with 2.0L ZETEC engine •
- Professional installation may be required ٠



#### FOCUS RS SHIFT KNOB M-7213-RS

- Fits Focus MTX-75 transmission only
- Stainless steel shift knob with RS logo



#### FOCUS RS PARKING BRAKE HANDLE M-2302-RS

- · Original equipment on Focus RS
- Fits all 2000-04 Focus
- Requires removal of original grip



# SVT FOCUS PEDAL KIT

#### M-2301-FSVT

- · Aluminum and urethane three-piece pedal cover set
- Original equipment on the SVT Focus
- Requires removal of accelerator pedal assembly •
- Fits 2000-04 Focus with manual transmission only



#### ESCORT ZX2 B&M<sup>®</sup> PRO EDGE SHIFTER M-7210-Z2

The B&M<sup>®</sup> Pro Edge Shifter is designed for short, precise gear changes. A billet 303 stainless steel stick with a counter

balanced bottom end and an aerospace polymer spherical bearing encased in billet aluminum.

#### **FOCUS SHIFTER** M-7210-Z3

• Fits 2000–April 2002 Focus with 2.0L Zetec and MTX-5 transaxle. Shift your 5-speed Focus faster and easier with a new short-throw shifter from Ford Racing. Designed with an improved pivot ratio to allow quicker shifts without having to reach as far as other shifters on the market. Manufactured with heavy-duty parts to withstand hard use. Can be installed with basic hand tools.

#### **FOCUS 5-SPEED SHIFTER** M-7210-Z3A

- Fits April 2002 and newer 5-speed Focus with 2.0L Zetec and MTX-75 transaxle
- · Designed with an improved pivot ratio to allow quicker shifts
- Short throw design for faster shifting
- · Manufactured with heavy-duty parts to withstand hard use
- Can be installed with basic hand tools

## SHORT THROW SVT FOCUS SHIFTER M-7210-S

- Fits 6 speed equipped SVT Focus
- Re-engineered shift mechanism with an improved pivot ratio for a shorter throw
- CNC machined steel shaft and billet aluminum reverse lock Accepts stock shift knob

and boot

184 Tech "Hot Line" (586) 468-1356





#### FORD RACING FOCUS FLOOR MATS M-13086-A

- Constructed with 18-oz. nylon with PVC backing
- Factory style anti-slide hook hole and bottom grip knobs
  Black mats with 3-color Ford Racing logo
- Kit contains 1 pair front floor mats



#### **"DE-GAS" TANK COVER** M-8080-FC

- Easy clip on installation
- Can be painted
- Fits 2000-04 Focus with Zetec engine
- Original equipment
   on Focus SVT



#### **ESCORT ZX2 SHIFTER BOOT** M-7277-Z2

• Leather shifter boot will fit stainless steel Pro Edge or stock shifter.



#### FOCUS INTERMITTENT WIPER SWITCH M-17553-ZX3

- Add 6-position intermittent windshield wipers to your Focus in less than 10 minutes!
- Easily installed with a small screwdriver. Simply replace your existing switch with ours.





# FOCUS BODY

## FOCUS ADJUSTABLE WING

M-16600-A\* Black anodized aluminum M-16600-B\* Polished stainless steel wing

- M-16600-C\* Aluminum, mill finish, for painting
- Fits 2000-04 Focus ZX3 and ZX5
- Three-piece multi-adjustable wing bracket is made from 6061-T6 aluminum wing body made of 5052-H32 aluminum
  168 possible positions
- Includes all necessary mounting hardware
- 48" x 7.5" wing
- Kit includes 2 sets of end plates
- Picture shown uses decorative end plates
- FOR OFF ROAD USE ONLY



#### FOCUS REAR WING M-16600-ZX3\*\*

- Low cost, easy way to add a sporty appearance to your Focus
- High-quality OEM part
- Original equipment on S2 Focus Sport
- Fits 2000-02 ZX3, 2002 ZX5 Focus
- Primed, must be painted to match your Focus
- Easy installation, includes mounting bolts, gaskets and instructions **NOTE:** Requires drilling four holes in vehicle to attach

#### UPPER GRILLE M-13200-RS\*

## • Fits 2000-04 Focus

- Optional equipment on the SVT Focus
- Kit includes left and right headlamp and custom installation harness
- FOR OFF ROAD USE ONLY



# FOCUS RS REAR WING

## M-17839-RS\*

- Fits 2000-04 Focus ZX3 and ZX5
- Requires drilling mounting holes
- Must be painted to match color of carOriginal equipment on the Focus RS
- LIMITED SUPPLY

#### 2.0L ENGINE COVER PLATE M-9434-F200

- Improve the appearance of your engine with this Ford Racing Engine Cover Plate
- Fits 2.0L Zetec engines
- Laser cut Ford Racing logo
- Made from high-quality T304 stainless steel
- Easy installation







# SVT FOCUS FRONT FASCIA

#### M-17831-F\*\*

- Fits all 2000-04 Focus ZX3 and ZX5
- · Complete with driving lights, lower grill insert, lower valance, side marker lights, and SVT horn
- Must be painted to match color of car •
- Original equipment on the 2003 SVT Focus



#### SVT FASCIA FOG LAMP HOOK-UP KIT M-15211-F\*

#### • Driving light connector with wires

- · Needs to be spliced into your wiring
- Original equipment on the 2003 SVT Focus
- FOR OFF-ROAD USE ONLY

## **SVT FOCUS UPPER GRILL**

#### M-13200-SVT\*\*

- · Honeycomb grill insert with turn signals from the 2003 Focus SVT
- Fits 2000-04 Focus ZX3 and ZX5
- Easy bolt-on
- Original equipment on the 2003 SVT Focus



#### SVT FOCUS REAR FASCIA M-17835-F\*\*

- Fits 2000-05 Focus ZX3 and ZX5 • Complete with honeycomb insert
- Must be painted to match color of car •
- Original equipment on the 2003 SVT Focus



#### SVT FOCUS REAR SPOILER M-17839-SVT\*\*

- Fits 2000-03 Focus ZX3 and ZX5
- Easy to install, no holes to drill, attaches with double-sided tape •
- ٠ Must be painted to match color of car
- Original equipment on the 2003 SVT Focus

#### SVT FOCUS BODYSIDE ROCKER KIT M-17833-F\*\*

- Fits 2000-05 Focus ZX3 and ZX5
- Must be painted to match color of car •
- Minor drilling required for installation •
- Original equipment on the 2003 SVT Focus





#### **BODY GRAPHICS**

M-1820-F2B	
M-1820-F2W	
M-1820-F5B M-1820-F5	

Ford Focus Flare Decal/Black Ford Focus Flare Decal/White Door Decal/Black Door Decal/White



## FOCUS V-8 CONVERSION KITS AVAILABLE FOR PUSH ROD ENGINES AND MODULAR ENGINES FROM:



ORDER FROM: KUGEL KOMPONENTS 451 PARK INDUSTRIAL DR. LA HABRA, CA 90931 (562) 691-7006 www.kugelkomponents.com





# PUT YOUR FOCUS ON PURE POWER WITH A V-8 CRATE ENGINE AND EASY INSTALLATION KIT

What happens when you take a Focus RS, the European street car inspired by the World Rally Car racing circuit, convert it to rear wheel drive and drop in a 4.6 liter or a 5.0 liter 4-valve crate engine? You blow the minds of sport compact-purists-with sizzling performance gains that come from this high horsepower, high torque, V-8 conversion. After this latest installation project from the team at Ford Racing Performance Parts, the streets will never be the same. From road courses to drag strips to drifting events, you'll be hearing a lot from this little pocket rocket.

What's more, Ford Racing's V-8 crate engines have been specially designed for easy installation. FRPP has taken the guesswork out of conversion by offering a wide range of components created to cover the most popular engine swap configurations. Components like 4.6L and 5.0L crate engines, upgraded Super Duty T-5 transmissions and Traction-Lok rear axle assemblies will make your V-8 conversion scream with power. You'll find everything you need for your project right here in this catalog.



#### 2.0L ZETEC ENGINE REBUILDER PARTS

M-6375-ZX3\*\* M-6584-ZX3\*\* M-6600-ZX3\*\* M-6710-ZX3A\*\* M-7563-ZX3\*\*

M-8501-ZX3\*\*

M-6710-ZX3

M-7550-ZX3

M-11000-ZX3\*\*

Flywheel Cam Cover Gasket Oil Pump Oil Pan Gasket **Clutch Pressure** Plate Water Pump Starter Oil Pan Gasket Clutch Disc



#### **USAC FOCUS MIDGET ENGINE** M-6007-USAC\*

- 2.0L Zetec race-ready engine
- Supplied with engine dress for power steering applications
- Available from select Ford Racing distributors: Beast Enterprises., Raceparts Distribution and SCREAM

# **USAC Ford Focus** Midget Series

So, you want to get started in racing? The USAC Ford Focus Midget Series ma be the avenue for you.

The USAC Ford Focus Midget Series was designed to address the growing need for affordable, reliable, entry-level racing opportunities. USAC Midget racing has long been recognized as a preferred venue for the aspiring racer, and the USAC Ford Focus Midget Car Series is designed to give the aspiring racer a costeffective avenue to pursue racing—and the proof is in the numbers. In 2005 alone, more than 140 Ford Focus Midgets will have competed nationwide in more than 100 USAC-sanctioned events.

The USAC Ford Focus Midget Series cars are based on a current USAC Midget car chassis and are powered by an internally production-stock, 2.0-liter Ford Focus Zetec engine. USAC competitors have enthusiastically received the Ford engine package f or its power, drivability and reliability.

For inquiries about he USAC Ford Focus Midget Series, contact: USAC (317) 247-5151.

To order a USAC Ford Focus Midget engine. contact one of the three authorized distributors:

Southeast Distributor	Raceparts Distributors, Inc.
	(704) 892-8688
Midwest Distributor	Beast Enterprises
	(317) 241-8236
West Coast Distributor	S.C.R.E.A.M.
	(805) 467-9351

	NG FUCUS PARIS I	FUKU KACING FUCUS PAKIS PERFUKMANCE CUMPAKISUN	KISUN								
CONFIG.	HP @ RPM ①	TORQUE @ RPM ①	CYLINDER Head	AIRBOX	air Filter	air Meter	CAMSHAFTS	HEADER	CRANK PULLEY	INTAKE Manifold	THROTTLE BODY
-	125.7 @ 6000	126 @ 4500	Prod	Prod	Prod	Prod	Prod	Prod	Prod	Prod	Prod
2	131.6 @ 6000	130.1 @ 4500	Prod	Prod	Prod	Prod	Prod	Prod	M-8509-ZX3	Prod	Prod
3	131.9 @ 6000	130.4 @ 4500	Prod	Prod	M-9601-FR2	Prod	Prod	Prod	M-8509-ZX3	Prod	Prod
4	132.5 @ 6000	132.7 @ 4500	Prod	Prod -Removed Res	M-9601-FR2	Prod	Prod	Prod	M-8509-ZX3	Prod	Prod
5	129.1 @ 6000	131.7 @ 4500	Prod	None	M-9601-FR2	Prod	Prod	Prod	M-8509-ZX3	Prod	Prod
9	131.9 @ 6000	133.3 @ 4500	Prod	None	None	Removed	Prod	Prod	M-8509-ZX3	Prod	Prod
7	138.1 @ 6000	137.1 @ 4500	Prod	None	None	Removed	Prod	M-9430-ZX3	M-8509-ZX3	Prod	Prod
8	148 @ 6500	130.9 @ 5000	Prod	Prod -Removed Res	M-9601-FR2	Prod	Prod	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
6	148.2 @ 6500	130.4 @ 5000	Prod	None	None	Prod	Prod	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
10	154.9 @ 6500	133.7 @ 5000	Prod	None	None	Prod	M-6252-A201	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
11	155.7 @ 6750	133.9 @ 5000	Prod	None	None	Prod	M-6252-A202	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
12	157.8 @ 6750	132 @ 4500	Prod	None	None	Prod	M-6252-A203	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
13	161.5 @ 7000	136.9 @ 5750	M-6049-ZX3P	None	None	Prod	Prod	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
14	168.7 @ 6750	141.7 @ 5750	M-6049-ZX3P	None	None	Prod	M-6252-A201	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
15	169.2 @ 6750	140.6 @ 5750	M-6049-ZX3P	None	None	Prod	M-6252-A202	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
16	175.9 @ 7000	141.7 @ 6000	M-6049-ZX3P	None	None	Prod	M-6252-A203	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
17	173.9 @ 7000	N/R @ N/R	M-6049-ZX3P	Prod	M-9601-FR2	Prod	M-6252-A203	M-9430-ZX3	M-8509-ZX3	M-9424-Z20	M-9926-D462
18	136.5 @ 5750	135.2 @ 4500	M-6049-ZX3P	Prod	M-9601-FR2	Prod	Prod	Prod	M-8509-ZX3	Prod	Prod
TES: ① En	NOTES: () Engine dyno data run using SAE J1349.	ng SAE J1349.					M.			I	
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# **SPORT COMPACT PERFORMANCE PARTS**

190 Tech "Hot Line" (586) 468-1356

# HIGH-SPEED HALFERS A MESSAGE FROM THE TEAM AT FORD RACING PERFORMANCE PARTS







Want a truck that isn't afraid of challenge? Ford Racing Performance Parts can help because "Built Ford Tough" is what we're all about.

Our goal is to help you personalize your truck in your own unique way. In the racing community, Ford trucks have a reputation for toughness... and winning. With the high proportion of Fords competing in racing events and used in support of racers, even our competitors note that pit areas look like Ford truck conventions.

Ford trucks continue to exhibit their winning ways in many off-road venues throughout the country. In Best In The Desert (BITD) sanctioned races in the deserts of the southwest, Ford trucks have generated a history of winning others can only dream about. Because of their success, Ford trucks enjoy "Official Truck of Best In The Desert" racing association status. In the first ten years of the SCORE Trophy Truck series (1994-2003), Ford trucks have been driven by the "All-Time Season Champions" an unprecedented eight times. Also, BigFoot Monster Trucks, the top winning fleet in Monster Truck racing, has maintained a close sponsorship association with Ford Motor Company and Ford trucks for more than 20 years.

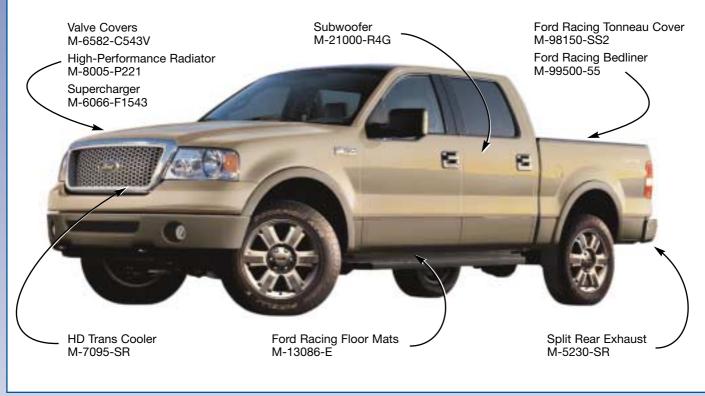
Working with Ford truck racers and vehicle professionals from coast to coast, Ford Racing Performance Parts has undertaken a rigorous search for parts that you can add to make your Ford truck even more special. We've added a variety of parts to enhance your trucks performance, handling and style.

Go beyond the statistics and race results. Prepare your truck for any challenge with performance parts from Ford Racing.





Ford Racing Performance Parts knows that race fans love trucks, and with the F-series it's easy to see why. Ford Racing and Ford trucks go hand-in-hand. Whether towing your drag strip terror or pulling into a NASCAR race, we know race fans are the most loyal F-series buyers out there. Show your Ford Racing spirit with these great looks and performance bolt-ons for your F-series pickup.

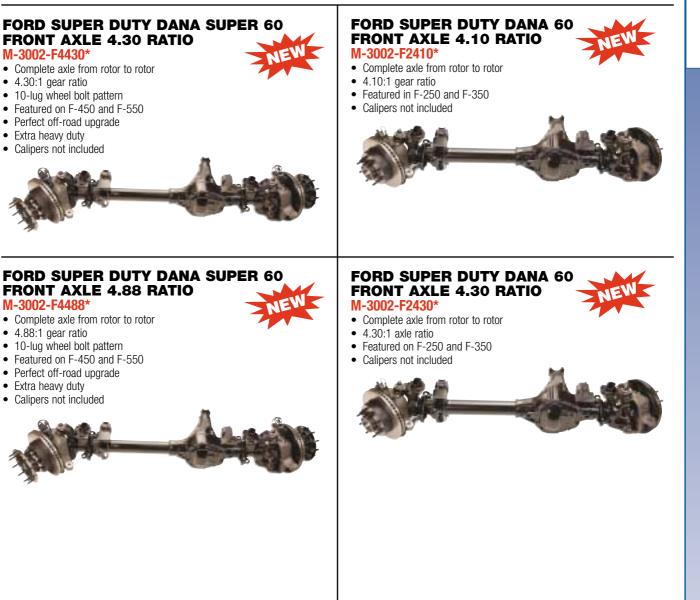




#### FORD RACING PERFORMANCE CRATE ENGINES

See pages 50-59 for a wide variety of performance crate engines or check out www.fordracingparts.com for the crate engine buyer's guide.





# TRUCK PERFORMANCE

#### FORD RACING SUPERCHARGER KITS FOR FORD TRUCKS AND SUVS



- Complete kits include all hardware
- Twin screw design creates less heat than other aftermarket "roots" superchargers
- Includes ECU with correct calibration
- Available in two finishes

#### **APPLICATIONS PLANNED FOR THE FOLLOWING:**

M-6066-E542
M-6066-E542P
M-6066-F1542
M-6066-F1542P
M-6066-F1543
M-6066-F1543P

2002-04 Expedition 5.4L 2V—all hardware included Polished 2002-04 Expedition 5.4L 2V—all hardware included 2002-03 F-150 5.4L 2V—all hardware included Polished 2002-03 F-150 5.4L 2V—all hardware included 2004-05 F-150/F-250/Expedition 5.4L 3V—all hardware included Polished 2004-04 F-150/F-250/Expedition 5.4L 2V—all hardware included

#### F-150 LIGHTNING TWIN SCREW SUPERCHARGER UPGRADE

- Bolts in place of factory supercharger
- · Twin screw design creates less heat than original stock "roots" supercharger
- Capable of higher boost levels than stock supercharger
- Uses stock hardware for installation
- Available in two finishes **M-6066-L542R M-6066-L542RP**

Black wrinkle finish Polished finish

#### FORD RACING TRUCK SUPERCHARGER KITS

- M-6066-T51
   1993-95
   5.8L Lightning (6psi only)

   M-6066-E50\*
   1996-97
   5.0L Explorer (6psi only)

   M-6066-E51\*
   1998
   5.0L Explorer (6psi only)
- M-6066-E52\* 1999-01 5.0L Explorer (6psi only)
- More power, up to 30% increase over production
- Internal belt drive, operates very quietly
- Aerospace ceramic bearings—requires no lubrication
- Bolt-on design, complete kit ready to install
- No oil lines to hook up
- Minimum 110 liters/hr. electric fuel pump recommended

#### SUPERCHARGING...THE EASY WAY TO MAKE MORE HORSEPOWER!

Ford's supercharger kits are highly refined units—the best overall design currently available. They are among the most efficient superchargers and offer many technical features not found in other centrifugal superchargers.

- NOTES: ① 50 states "Street Legal"E.O. #D-308-2
  - ② Fits manual trans., E40D. A0D requires shift M-7101-F not included. Will not work with A0DE
  - ③ With minor bracket modifications



Kit contents vary by application



RANGER 3.0L SUPERCHARGER KIT M-6066-R30P\*

- Fits 2002-04 3.0L Ranger auto or manual transmission
- Achieve excellent throttle response and mid-range torque by installing a Whipple Supercharger system
- A recalibration of the OEM computer by qualified calibration powertrain engineers means that the Whipple Supercharger is a fully integrated system
- This system incorporates an automatic transmission performance recalibration for quick, firm and precise shifting
- This is an easy-to-install system that bolts on in less than 2 hours. It fits under the hood with no permanent modifications to the vehicle and absolutely no wiring
- This kit achieves incredible horsepower, 230 HP @ 5400 RPM, up from the stock 154 HP and torque, 260 ft./lbs. Torque @ 3000 RPM, up from the stock 180 ft./lbs.
- This huge increase in usable low-end and mid-range power is due to the positive displacement design of the belt driven Whipple Supercharger





## EFI MASS AIR CONVERSION KIT

M-9000-T50\*

1987-95 F-Series 5.0L EFI Truck only (M.T.) (Will not fit SVT F-150 Lightning) 1987-93 F-Series 5.0L EFI Truck only (A.T. A0D only)

- M-9000-T51\* 1987-93 F-Series 5.0L EFI Truck (Will not fit SVT F-150 Lightning)
- Converts production "speed density" system to "mass airflow" system, which directly measures engine airflow, and supports engine modifications
- This kit is required before making ANY performance modifications to engine and powertrain of EFI trucks. Some California trucks have mass air systems



# LIGHTNING MASS AIR METER

- M-12579-L54\*\*
- Stock replacement 90mm 2001-04 F-150 Lightning Mass Air Meter
- Requires recalibration for use on other vehicles



## HORSEPOWER PULLEY KIT

- M-8509-A50\* 1987-96
  Steel pulleys for crankshaft,
- water pump, and alternatorFits 5.0L truck 1987-96,
- 5.8L truck 1988-1996
- · Significantly improves performance
- Uses stock serpentine belt
- Reduces accessory drive RPM
- Not recommended for heavy towing application

50





#### 9MM SPARK PLUG WIRE SETS - "FORD RACING"

Wire-wound Custom Ignition Wire Sets feature low resistance for minimum spark loss. Silicone insulation and boots withstand high temperatures and voltage loss for minimum cross-fire and are highly resistant to fuels, oils and solvents. Long-life, tough stainless steel terminals for "post" type distributor caps. Includes coil wire for socket-type coil and "Ford Racing" identification. Cylinder number appears on each wire.

#### **NEW AND IMPROVED**

Spark plug wires feature high-quality 9mm wire available in 4 colors: blue, black, yellow and red.

#### NOTE:

Universal sets can be cut to length with a crimping tool. Includes terminals for post and socket type coils, plus easy-to-follow instructions. Wire sets M-12259-C301/R301/M301/Y301/C302/ R302/M302 do not fit distributorless ignition system (DIS) 5.0L/302 Explorer engines. The universal 6- and 8-cylinder wire sets do not fit distributorless ignition system (DIS).

PART NUMBER	APPLICATION	WIRE Color	END Config.	WIRE DIA.
M-12259-C301**	5.0/5.8L V-8 Engine	Blue	45° Boot	9mm
M-12259-R301**	5.0/5.8L V-8 Engine	Red	45° Boot	9mm
M-12259-M301**	5.0/5.8L V-8 Engine	Black	45° Boot	9mm
M-12259-Y301**	5.0/5.8L V-8 Engine	Yellow	45° Boot	9mm
M-12259-C302**	V-6 and V-8 Universal	Blue	45° Boot	9mm
M-12259-R302**	V-6 and V-8 Universal	Red	45° Boot	9mm
M-12259-M302**	V-6 and V-8 Universal	Black	45° Boot	9mm
M-12259-T462**	4.6L 2V F-150 Truck	Blue	45° Long Boot	9mm
M-12259-FR2**	2.0L Escape	Blue	45° Long Boot	9mm
M-12259-RF2**	2.0L Escape	Red	45° Long Boot	9mm
M-12259-YF2**	2.0L Escape	Yellow	45° Long Boot	9mm



M-12259-T462 shown

M-12259-RF2 shown

# TRUCK PERFORMANCE

#### **STAINLESS STEEL "SHORTY" HEADERS**

PART NUMBER	ТҮРЕ	APPLICATION
M-9430-T50*	Stainless Steel	1990-95 F-Series Truck and E-Series Van with 5.0L engine <sup>®</sup>
M-9430-T58*	Stainless Steel	1990-96 F-Series Truck and E-Series Van with 5.8L engine @
M-9430-E52*	Stainless Steel	1996-98 5.0L Explorer
M-9430-F542*	Stainless Steel	1999-03 F-150 & 2000-04 F-250 5.4L 2V
M-9430-F542C*	Ceramic Coated	1999-03 F-150 & 2000-04 F-250 2v 🛈
M-9430-F543*	Stainless Steel	2004-05 F-150 & 2005 F-250 5.4L 3V
M-9430-F543C*	Ceramic Coated	2004-05 F-150 & 2005 F-250 5.4L 3V ①
M-9430-SD682*	Stainless Steel	2004 F-250 6.8L V10 2V
M-9430-SD682C*	Ceramic Coated	2004 F-250 6.8L V10 2V ①
M-9430-SD683*	Stainless Steel	2005 F-250 6.8L V10 3V
M-9430-SD683C*	Ceramic Coated	2005 F-250 6.8L V10 3V ①
NOTES		

#### NOTES:

 Jet-Hot<sup>®</sup> Lifetime Warranty

② Production and

all GT-40 heads

#### HEADER LIMITED WARRANTY

This limited warranty becomes void if the product shows evidence of bending or mutilating of parts or burnout resulting from improper tuning. Warranty covers rust through only and does not cover cosmetic rust or discoloration of material. This limited warranty shall be limited to the repair, adjustment or replacement of defective parts only. Does not cover any labor claims. Ask your dealer for a copy of this "Jet-Hot" limited warranty.

## F-250/350 DIESEL EXHAUST SYSTEMS

 M-5230-73L\*
 1998-04 F250/350 with 7.3L diesel, 2WD and 4WD

 M-5230-6L\*
 2003-05 F250/350 with 6.0L diesel, 2WD and 4WD

 • Made of high-quality T-304 stainless steel

- 4" diameter
- Additional lengths to fit all wheelbases included
- Unique tips

## F-150 LIGHTNING STYLE EXHAUST SYSTEM

#### M-5230-L\*

- Fits 2004 and up F-150 2WD
- SVT Lightning inspired styling
- Unique tips
- Made of high-quality T-304 stainless steel
- Additional lengths to fit all wheelbases included in the kit

# F-150 LIGHTNING EXHAUST SYSTEM

#### M-5230-L2\*

- Replacement for 1999-04 Lightning
- Side exit exhaust
- Made of high-quality T-304 stainless steel
- Unique tips

#### F-150 LIGHTNING STYLE EXHAUST SYSTEM M-5230-L3\*

- Fits 1998-03 F-150 and 2004 F-150 Heritage 2WD
- Side exit exhaust
- Unique tips
- Made of high-quality T-304 stainless steel
- SVT Lightning inspired styling
- Additional lengths included to fit all wheelbases



#### FEATURES: STAINLESS STEEL

409 stainless is a blend of stainless and mild steel. This type of stainless is used to make production catalytic converter assemblies that have a 100,000-mile durability requirement. 409 stainless has excellent forming characteristics and is rust through resistant. 409 stainless will develop a light surface rust.

- 409 stainless steel tubes
- 1.625" diameter tubes
- Machined flange
- Bolts to stock exhaust pipes
- Includes gaskets, bolts and studs
- Designed by Ford Racing engineers

#### **CERAMIC COATED STAINLESS STEEL**

- Identical to stainless steel header, but with Jet-Hot® ceramic finish
- Stain and rust resistant
- Super-premium quality
- Lifetime Warranty
- Finest short-tube headers you can buy

# F-150 SPLIT REAR EXHAUST SYSTEM

# M-5230-SR\*

- Fits 2004 and up F-150 2WD and 4WD
- Made of high-quality T-304 stainless steel
- 4.6L and 5.4L
- compatibleUnique tips
- Additional lengths included to fit all wheelbases
- to fit all wheelbases
  Will not fit 2004 F-150 Heritage



# F-150 SPLIT REAR EXHAUST SYSTEM

- M-5239-SR1\*
- Fits 1998-03 F-150 and 2004 F-150 Heritage 2WD and 4WD
- Made of high-quality T-304 stainless steel
- 4.6L and 5.4L compatible
- Additional lengths included to fit all wheelbases



# Unique tips

#### F-150 HARLEY-DAVIDSON SPLIT REAR EXHAUST SYSTEM M-5230-HDSR\*

- Fits 2001-03 F-150 Harley-Davidson
- pickupMade of high-quality
- T-304 stainless steel

Unique tips



50 2WD and 4WD -304 stainless steel



# COOLING SYSTEMS



# 2004 TO PRESENT F-150 HIGH-PERFORMANCE RADIATOR M-8005-P221\* All aluminum construction Recommended for high-performance applications Thermally efficient up to 700 horsepower Uses OEM fan and mounting points Will not fit 2004 F-150 Heritage

#### F-150 HARLEY-DAVIDSON RADIATOR M-8005-HD\*\*

Original equipment on 2002-03 Harley-Davidson pickup



#### F-150 LIGHTNING RADIATOR M-8005-L\*\*

Original equipment on 1999-04 SVT Lightning



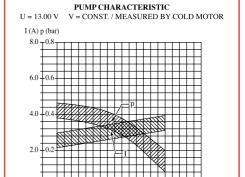
#### 1999-03 LIGHTNING/HARLEY-DAVIDSON INTERCOOLER ASSEMBLY M-8226-L\*\*

- Air to liquid intercooler core used in SVT Lightning and Harley-Davidson pickup
- · Great for replacement or custom applications



## ELECTRIC WATER PUMP

- M-8501-L54\*\*
- Production 2003 F-150 Lightning intercooler coolant circulation pump
- Inlet and outlet hose connection diameter is 19mm/3/4"
  Can be used in many coolant pumping applications



#### F-150 LIGHTNING DUAL FUEL PUMP KIT M-9407-L54

- Dual 130 liters per hour fuel pumps from the 1999-2004 Lightning
- Fits 1996-2004 F-150 models with PN96 body
- Kit includes jumper wire for non Lightning applications



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# TRUCK PERFORMANCE

## FORD RACING PERFORMANCE AIR FILTERS

- Multi-layer high-performance air filter traps more dirt and has less restriction Filter is cleanable and reusable
- · Same filters as used in Ford Racing cold air induction kits

PART NUMBER	DESCRIPTION
M-9601-F04	2004-06 F-150 (not 2004 Heritage)
M-9601-F730	1999-06 F-250/350 7.3L Diesel
M-9601-F877	1987-97 F-150 with 4.9/5.0/5.8/7.5L
M-9601-L540	1999-00 F-150 Lightning
M-9601-L541	2001-04 F-150 Lightning/Harley
M-9601-M302	1968-87 F-150
M-9601-M380	1994-04 3.8L Lincoln Blackwood
M-9601-M46	1996-04 All F-Series with 4.2L V-6 and 4.6/5.4L V-8
M-9601-R885	1988-95 Ranger, All Engines
M-9601-R984	1998-04 Ranger, All Engines
M-9601-Z200	Escort ZX2 All 1995-97 Ranger









## **ALUMINUM TRANSMISSION PAN**

M-7195-C6 C-6 Deep Sump

- Cast aluminum transmission pan with cooling fins and Ford Racing logo cast in the bottom
- · Pan holds approximately 2 quarts additional ATF
- Kit includes mounting hardware
- Filter and pan gasket not included



#### **ALUMINUM TRANSMISSION PANS**

M-7195-4R Fits 4R70W Trans

#### M-7195-AOD Fits AOD/AODE Trans

- Cast aluminum transmission pan with cooling fins and Ford Racing logo
- · Pan holds approximately 2 quarts additional ATF
- Kit includes mounting hardware
- Filter and pan gasket not included



#### **ALUMINUM TRANSMISSION PAN**

- M-7195-C4D\* C-4 Extra Deep Sump
- Cast aluminum transmission pan with cooling fins and Ford Racing logo cast in the bottom
- Pan holds approximately 3 quarts additional ATF (case fill only)
- Kit includes mounting hardware
- Filter and pan gasket not included



## ALUMINUM TRANSMISSION PAN

**M-7195-T** E40D/4R100 Deep Sump

- Cast aluminum transmission pan with cooling fins and Ford Racing logo cast in the bottom
- · Pan holds approximately 2 quarts additional ATF
- Kit includes mounting hardware
- · Filter and pan gasket not included



ENGINE

# TRUCK PERFORMANCE

# AXLE GIRDLE

- M-4033-G1 8.8" Ford
- Lightweight 356T6 aluminum casting replaces rear cover on 8.8"
- Load bolts provide additional support for differential bearing caps
- Increase ring and pinion gear life
  Stud kit M-4034-A recommended
- for 8.8" and Dana 60 **NOTE:** Check exterior clearance to chassis/suspension **NOTE:** Will not fit 2005 Mustang



## 8.8" DIFFERENTIALS



M-4204-F318 shown

PART NUMBER	AXLE	SPLINE	DESCRIPTION
M-4204-F318 23	8.8"	31 spline	Traction-Lok
M-4204-A31 235	8.8"	31 spline	Auburn HD
M-4204-P31 235	8.8"	31 spline	Auburn Pro 2
M-4204-T31 @	8.8"	31 spline	T2 Torsen Differential

NOTES: 1) Off-road use only!

2 Will accept anti-lock exciter ring.

- ③ Requires 4 ounces of CM-19546-A1 friction modifier with initial fill.
- ④ M-4204-T28 fits 1999 Cobra/Thunderbird/Mark VIII with IRS
- (2001-04 Cobra has 31 spline).
- (5) Recommended for street use only.

# 9.75"/8.8"/7.5" RING GEAR AND PINION SETS

PART NUMBER	RATIO	AXLE
MUSTANG/RANGER/F-150 8.8	8"	
M-4209-F308*	3.08:1	
M-4209-F327*	3.27:1	_
M-4209-G355M*	3.55:1	—
M-4209-F373N*	3.73:1 3	) —
M-4209-G410A*	4.10:1	_
M-4209-G430M*	4.30:1	—
M-4209-G456*	4.56:1	_
M-4209-G488*	4.88:1	_
M-4209-G513*	5.13:1 (1	) —
MUSTANG/RANGER 7.5"		
M-4209-L345*	3.45:1	
M-4209-L373M*	3.73:1	_
M-4209-L410N*	4.10:1	_



PART NUMBER	RATIO	AXLE
5.4L F-150, EXPEDITI	ON, NAVIG	ATOR, F-250/350 2
M-4209-H373*	3.73:1	9.75" (rear)
M-3410-L373*	3.73:1	8.8" (front)
M-4209-J410M*	4.10:1	9.75" (rear)
M-4209-J456M*	4.56:1	9.75" (rear)
M-4209-K410M*	4.10:1	10.25" (rear)
M-4209-K456M*	4.56:1	10.25" (rear)

#### NOTES:

- ① May require rear cover modifications.
   ② These ring and pinions have been developed to increase towing
- capability of 5.4L Expeditions. ③ Replaces our popular M-4209-F373. New manufacturing technology utilizing a Face Hob Process which features a single pass pinion tooth machining operation compared to a conventional three pass process for machining. CNC cut and lapped gear teeth. Higher strength and better quality gears are produced with the Face Hob Process. NOTE: These new gears look a little different; the gear teeth are cut on a different angle and the ring gear has a bevel on the back of the gear.

#### RANGER ALUMINUM REAR DRIVESHAFT ASSEMBLY M-4602-R\*\*

- Fits 2002-03 Ranger pickup 4x4
- 126" wheel base only
- Fits automatic or manual transmission equipped trucks, with 3.0L and 4.0L engines



#### 9.75" "TRUE TRAC" LIMITED SLIP DIFFERENTIAL M-4204-TT31

- Torque sensing differential applies torque to wheel with best traction
- Refined enough for street use, stout enough for rigorous off-road duty
- 34 spline count fits all 9.75" axles to 2006

#### STERLING AXLE "TRUE TRAC" LIMITED SLIP DIFFERENTIAL M-4204-TT312

- Torque sensing differential applies torque to wheel with best traction
- Refined enough for street use, stout enough for rigorous off-road duty
- 35 spline fits all Sterling axle 10.25" and 10.5" gears





#### HEAVY DUTY LOW STALL TORQUE CONVERTERS M-7902-D1\*

M-7902-D2\*

These converters are designed to increase towing power, improve fuel economy, reduce heat due to less slippage and improve transmission performance.



#### HEAVY DUTY VERY LOW STALL TORQUE CONVERTERS

# M-7902-D3\*

M-7902-D4\* M-7902-D5\*

- These converters are designed to increase towing power, improve fuel economy, reduce heat due to less slippage and improve transmission performance
- The very low stall feature provides maximum torque multiplication at peak torque
- These converters will handle most extreme load carrying or towing jobs

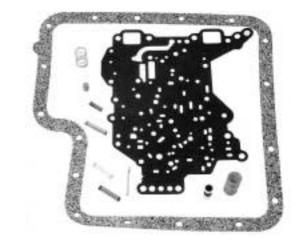


#### **DIESEL CONVERTERS**

PART NUMBER	TRANSMISSION	APPLICATION	APPROXIMATE Stall speed
M-7902-D1*	E40D	1989-94 Diesel 7.3L	18-2200 RPM
M-7902-D2*	E40D	1995-97 Diesel 7.3L	18-2200 RPM
M-7902-D3*	E40D	1989-94 Diesel 7.3L	15-1800 RPM
M-7902-D4*	E40D	1995-97 Diesel 7.3L	15-1800 RPM
M-7902-D5*	C-6	All Diesel 7.3L	15-1800 RPM

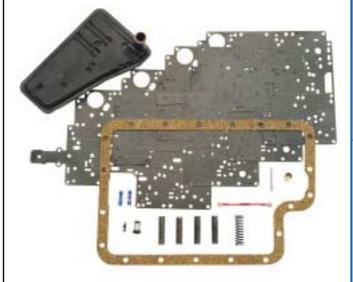
#### AOD TRANSPAK KIT M-7101-F\*

This kit allows motorsport enthusiasts to tailor their AOD transmission for high-performance street or heavy-duty/strip applications. Kit installs without removing transmission.



#### E40D TRANSPAK KIT M-7101-H\*

This kit permits owners of trucks and SUVs equipped with the E40D transmission to tailor the shift quality for their driving needs. Kit installs without removing transmission.



# CHASSIS COMPONENTS

# TRUCK PERFORMANCE

## C-6 HD 6-PINION WIDE RATIO GEAR SET KIT

(ALL PARTS BRAND NEW!) WIDE RATIO (PLANETARY NEEDLE BEARING)

#### M-7398-F\*

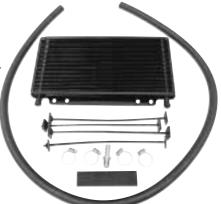
This kit adapts gear train components from the new 4R100 transmission to all C-6 transmissions. The 6-pinion planet assemblies provide 2.72:1 low and 1.54:1 intermediate ratios as the discontinued M-7398-C gear set, while increasing torque capacity by 43%. Kit includes the HD #5, #7, #8, and #9 needle bearing components. Provides drag racers with more acceleration, and tow vehicles or motor homes with more pulling powerwithout changing axle ratios.

NOTE: No machining is required on M-7398-F kits!



#### **HD TRANSMISSION OIL COOLER KIT** (SELF-REGULATING) M-7095-SR

Unique patented "stacked-plate" design offers 35% improvement in efficiency over fin-and-tube coolers. The .75" x 7.25" x 11" unit weighs only 2.5 lbs., but has a full 18,000 lbs. GVW rating. The self-regulating design feature bypasses cold transmission fluid automatically (without thermostats or valves) until its viscosity decreases and allows fluid to flow through the main body of the cooler. SAE thread fittings.



# RECALIBRATOR

- M-9731-T01\* 2001-04 (Except P221)
- Fits most Ford vehicles with square connector on speed sensor
- Corrects speedometer, odometer, ABS, cruise control systems and other calibration errors related to any changes in axle ratio or tire size

# RECALIBRATOR

M-9731-T99\* 1999-00

changes in axle ratio or tire size

- · Fits most Ford vehicles that come factory equipped with D-shaped connector on speed sensor • Corrects speedometer, odometer, ABS, cruise control
- systems and other calibration errors related to any





# HANDLING





#### F-150 LIGHTNING REAR SWAY BAR KIT M-5400-L

- Fits 1996-03 F-150 and 2004 F-150 Heritage 2WD
- Original equipment on 1999-04 F-150 Lightning
- Includes all installation hardware



# HANDLING

#### LIGHTNING LOWERING KIT M-3000-L

This kit lowers all 1999-04 F-150 Lightning/Harley-Davidson models 30mm (1.181") in all four corners. A simple front coil/jounce bumper replacement and rear shackle replacement are the only items necessary to enhance positive control. Both vehicles retain very good ride/launch characteristics.



#### LOWERING KIT FOR 2WD 1998-02 EXPEDITION/LINCOLN NAVIGATOR WITH REAR AIR



## M-3000-EN2 2WD

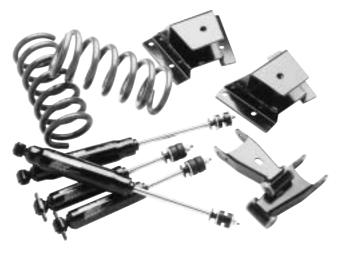
These kits lower 1998-02 Lincoln Navigator models approximately 2" front and 2" rear. The kit consists of front-coil springs, rear—new air brackets. Kits include 2 rear high-pressure gas shocks for positive suspension control. Have improved ride, handling and cosmetic improvements.



#### LOWERING KIT, 1997-04 F-150, 2WD M-3000-T1

This kit lowers 1997-04 F-150 standard cab, SuperCab and SuperCrew with V-6 or V-8, approx. 2" front and 4" rear. Includes new front coil springs, rear shackles and hangers and 4 specially tuned high-pressure gas shocks. Fits vehicles with V-6 or V-8 engines in standard cab (long and short bed) and SuperCab (short bed). Improves appearance and handling with very acceptable ride characteristics.

**NOTE:** Not recommended for 1999-04 SVT F-150 Lightning. When used on 2001 SuperCab with 6' box and 5" dia. driveshaft, the driveshaft may hit the crossmember on hard bumps. 2WD only.



#### LOWERING KIT FOR 4WD 1998-02 LINCOLN NAVIGATOR FULL AIR M-3000-N4 4WD



These kits lower 1998-02 Lincoln Navigator and Eddie Bauer Expedition models approximately 1.5" front and 1.5" rear. The model consists of front, new air brackets and torsion bar keys. Kit also includes 2 rear high-pressure gas shocks for positive suspension control. Both have improved ride, handling and cosmetic improvements. Model retains stock capabilities. Exclusive feature, lowers additional 2" when parked.





#### LOWERING KIT, 2001-05 ESCAPE M-3000-E



- Fits 2001-05 Escape 2WD and 4WD
- Linear springs lower the front 1.3" and progressive springs lower the rear 1.5" on V-6 models. 4-cylinder models will be lowered less
- This kit reduces the vehicles rear squat tendencies and lowers the center of gravity improving overall handling while maintaining good ride quality
- Kit includes 4 springs and 2 bump stops



# LOWERING KIT FOR 2WD AND 4WD 2002-05 EXPLORER

- M-3000-F
- Fits 2002-05 2WD and 4WD
- 4 door
- Lowers 1.6" front and rear
- Includes front and rear springs
- Lowers center of gravity, improves handling
- Increased spring rates for firmer than stock ride



# 2004-06 F-150 REAR LOWERING KIT

- M-3000-G
- Lowers rear of vehicle
- 2" drop
- Contains all installation hardware

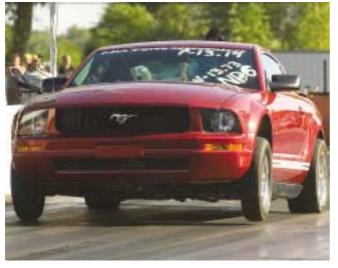


#### 2004-06 2WD F-150 LOWERING KIT M-3000-T3

- Lowers truck 2" in the front, 5" in the back
  Includes front drop coil springs, rear flip kit, rear shocks, bump stops and hardware
- Fits all 2WD models
- Lowers vehicle roll center for better handling
- Does not fit 2004 F-150 Heritage







Paul's High Performance 2005 V-6 Mustang 4.0L SOHC Engine 12.80 ET @ 107 MPH

# **STYLE**

# EFI TRUCK VALVE COVERS

M-6582-A351R\*\* Black Satin M-6582-B351R\*\* Polished Aluminum

- Fits 5.0L EFI and 5.8L EFI engines
- Die-cast aluminum with raised "Ford Racing" logo
- Includes chrome oil filler tube and cap
- Available in "Black Satin" or "Polished Aluminum" NOTE: Find more valve covers in the Ford Racing Performance Parts Catalog on www.fordracingparts.com

M-6582-A351R shown

# FORD RACING F-150 FLOOR MATS

M-13086-D Front only

- Fits 1996-03 F-150 and 2004 F-150 Heritage
- Midnight black with Ford Racing logo
- Sold in pairs
- · Original equipment quality and fit

#### M-13086-E Front only

- Fits 2004 and up NEW F-150
- Midnight black with
- Ford Racing logo Sold in pairs
- Original equipment quality and fit



M-13085-D shown

#### F-150 BILLET ALUMINUM **GRILL INSERTS**

M-7843-A Ford Oval Logo

- M-7843-B Ford Racing Logo
- Fits F-150 1996-03 and 2004 Heritage
- Can be used as a grill or tailgate insert
- 7.25" wide
- Polished aluminum with painted logo
- · Includes mounting hardware





**HARLEY-DAVIDSON FRONT CONSOLE** COVER

#### M-1606024-HDF3

Original equipment on 2003 Harley-Davidson pickup



## COATED 3-VALVE CAM COVERS 4.6L/5.4L

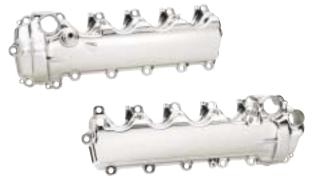
M-6582-C543V Powdercoated for chrome appearance M-6582-3VB Blue

M-6582-3VBLK Black Wrinkle

- Silver
- M-6582-3VS



Fits all 2004-06 3-valve 4.6L/5.4L engines







# **STYLE**

# TACH DRIVER

#### M-17361-A200

Due to the sophisticated engine electronics found on many of today's popular automobiles (including the Ford Mustang and the Ford Focus), performance-oriented owners have discovered that their favorite aftermarket tachometer may not function properly. Discover the Ford Racing Tach Driver.

The Ford Racing Tach Driver is a compact, state-of-the-art electronic device designed to provide a compatible signal required for the proper operation of Ford Racing Tachometers as well as other popular aftermarket tachometers. The Tach Driver is required for installing an aftermarket tachometer in most 1999 and newer 4,6,8 or 10-cylinder Ford-powered vehicles with a crankshaft position sensor and coil on plug (COP) or distributorless (DIS) ignition systems.

#### The Ford Racing Tach Driver is:

- Recommended for use with either of the Ford Racing Competition Shift Light Tachometers, part numbers M-17360-A200 or M-17360-A201 or any of the Ford Racing Masterpiece Gauge Set tachometers, part numbers M-17360-A961, M-17360-B961 or M-17360-C961
- Engineered to withstand the harsh vibrations and severe environmental conditions of under-hood installation
- · Packaged with easy-to-follow instructions for quick installation
- Compatible for use with RPM activated switches



# ALUMINUM FUEL DOOR

- M-2301-E 2001 Special Edition Mustang Aluminum Fuel Door
- Original equipment on 2001 Special Edition Mustang
- · Manufactured by the OEM supplier, not a reproduction part
- Fits 1999-04 Mustang
- Fits 1997-03 F-150 with round fuel door
- Fits 2000-05 Focus with modifications to the fuel filler neck plastic box



# F-150 ACCELERATOR PEDAL PAD

#### M-2301-F

- Fits 1999-03 and 2004 F-150 Heritage with adjustable foot pedals ①
- Direct replacement for stock pedal
- Easy to install, no drilling required
- Brushed aluminum finish with urethane bars for better grip
- Custom styling for the F-150 enthusiasts

#### NOTE:

 Standard 2004 F-150 has a one-piece plastic pedal assembly and the pedal pad is not removable.



#### **F-250 ACCELERATOR PEDAL PAD**

#### M-2301-G

- Fits 1999-01 Gas Super Duty
- Direct replacement for stock pedal
- Easy to install, no drilling requiredBrushed aluminum finish with urethane
- bars for better grip
  Custom styling for the F-250 enthusiasts



#### F-150/250 BRAKE PEDAL PAD M-2301-H

- Fits 1999-03 and 2004 F-150 Heritage
- Direct replacement for stock pedal
- Easy to install, no drilling required
- Brushed aluminum finish with urethane bars for better grip
- Custom styling for the F-Series enthusiasts
- With automatic transmission only



# F-150 PARKING BRAKE PEDAL PAD

- Fits 1999-03 and 2004 F-150 Heritage
- Direct replacement for stock pedal
- Easy to install, no drilling required
- Brushed aluminum finish with urethane
- bars for better gripCustom styling for the F-150 enthusiasts





# **F-150 LIGHTNING HEADLIGHTS**

M-13006-L03 Sold in pairs

- Original equipment 2003 SVT F-150 Lightning
- Fits 1997-03 F-150 and 2004 F-150 Heritage model
- · Clear crystalline lenses are marked with thin horizontal lines which accentuate the shape of the lights' exterior surface
- Requires parking lamps M-13200-L02 sold separately



# F-150 LIGHTNING PARKING LAMPS

M-13200-L02 Sold in pairs

- Original equipment on 2003 SVT F-150 Lightning
- Fits 1997-03 F-150 and 2004 F-150 Heritage model
- Requires headlights M-13006-L03 sold separately
- · Clear crystalline lenses are marked with thin horizontal lines which accentuate the shape of the lights' exterior surface



## **F-150 LIGHTNING TAIL LAMPS**

M-13404-L01 Sold in pairs

- Original equipment on 2003 SVT F-150 Lightning
- Fits 2000-03 F-150 Flareside and Flareside SuperCrew only
- Clear crystalline lenses are marked with thin horizontal lines which draw the eye to the lights' exterior plane rather than its reflector and bulb



# HARLEY-DAVIDSON HEADLAMPS

#### M-13006-HD

- Original equipment on 2002-03 Harley-Davidson F-150
- Sold in pairs
- Requires M-13200-L02 sold separately •



#### 2000-03 HARLEY-DAVIDSON FOG LAMPS M-15200-HD

- Original equipment on 2000-03 Harley-Davidson F-150
- · Sold in pairs



#### TRAILER HITCH RECEIVER CAPS

Slip in some stylish protection for your hitch receiver with these trailer hitch receiver caps from Ford Racing. They add the finishing touch to your original equipment or aftermarket Class III hitch receiver.

# **CAST ALUMINUM**

M-19520-G Ford Racing



#### **DIE-CAST, TRIPLE-PLATED BRIGHT CHROME**

M-19520-B



New design fits Class II and Class III hitch receiver



#### POLISHED BILLET ALUMINUM M-19520-F



#### 2004-2006 F-150 BILLET FORD OVAL LOGO M-7843-C

- Fits 2004-06 F-150 9" long, machined from billet aluminum
- Polished with red and blue paint
- Will not fit 2004 F-150 Heritage

#### 2004-2006 F-150 BILLET FORD RACING LOGO M-7843-D

- Fits 2004-06 F-150
- 9" long, machined from billet aluminum
- · Polished with red
- and blue paint

#### F-150 LED CHMSL LIGHT M-13613-F150\*

- Led replacement center high mount stop light (CHMSL)
- Fits 1997-03 F-150 and Lightning trucks



# **STYLE**

# 2001-04 F-150 REAR LAMP COVER

#### M-13564-F Rear only

- Fits 2001-03 F-150 and 2004 F-150 Heritage
- Flareside and SuperCrew only
- · Sold in pairs
- Original equipment



- Fits 2001-03 F-150 and 2004 F-150 Heritage
- Styleside only
- Sold in pairs
- Original equipment



#### **4-INCH WIDE CHROME STEP BARS**

- · Corrosion-resistant, chrome-plated aluminum tubing
- Rugged yet lightweight
- Slip-resistant step pads
- · Easy to install, no drilling required

M-16450-F1 4" Diameter bars

Fits 1996-03 F-150 and 2004 F-150 Heritage SuperCab

M-16450-F2 4" Oval Bars Fits 1996-03 F-150 and 2004 F-150 Heritage Crew Cab

M-16450-F3 4" Diameter Oval bars Fits 1999-04 F-250/350 SuperCab

M-16450-F4 4" Oval bars Fits 1999-04 F-250/350 Crew Cab

#### F-150 TRANSFER CASE SKID PLATE M-7063-TSP1

- Fits most F-150 4x4s 1997-03
- Works with 4.2L and 4.6L manual/auto transmission
- Works with 5.4L equipped with 4R70W and AODE



#### F-150 TRANSFER CASE SKID PLATE M-7063-TSP2

• Fits 5.4L equipped 4x4 F-150 1997-03 with E40D and 4R100

# F-150 FUEL TANK SKID PLATE

- For use on 1997-03 F-150 4x4 SuperCab
- For use on 2000-03 F-150 4x4 CrewCab with 139" wheelbases
- Does not include hardware

F-150 FUEL TANK SKID PLATE M-9147-FTSP3

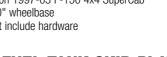
- For use on 1999-03 F-150 standard cab with 139" and 157" wheelbase
- · Does not include hardware







M-9147-FTSP2 with 139" wheelbase







## HARLEY-DAVIDSON STRIPE KIT DARK RED

- M-1620000-HDDR Dark Red
- Fits F-150 Harley-Davidson pickup
  Original equipment on 2002 F-150 Harley-Davidson pickup
- Includes both sides

# HARLEY-DAVIDSON STRIPE KIT ORANGE

- M-1620000-HD0 Orange
- Fits F-150 Harley-Davidson SuperCrew pickup
  Original equipment on 2002 F-150 Harley-Davidson pickup
- Includes both sides



#### **TUBULAR GRILL ASSEMBLY**

- M-8200-F 1996-03 and 2004 F-150 Heritage
- M-8200-SD 1999-04 F-250/350
- Corrosion-resistant, 100% stainless steel
- Mounts directly over factory grill, no drilling required



B. East **USAC Midget Series** 



# **STYLE**

## FORD RACING TONNEAU COVER

PROTECT YOUR CARGO FROM THE ELEMENTS WHILE SHOWING YOU'RE A FORD RACING FAN WITH A TONNEAU COVER FROM FORD RACING!

- Ford Racing logo embossed in cover
- Original equipment quality and finish
- Very easy to install and remove
- Installs is less than 10 minutes the first time and less than two minutes on or off after that
- Made from convertible top material
- Minimum purchase lot of 250 tonneau covers
- Available for the following applications:

M-98100-LB M-98100-SB M-98100-SP M-98150-FS2	Ranger Long Bed 1993-05 Ranger Short Bed 1993-05 Ranger Splash 1993-05 F-150 Flareside 2004-05
M-98150-LB1	F-150 Long Bed 1997-03 and 2004 F-150 Heritage
M-98150-LB2 M-98150-SB1	F-150 Long Bed 2004-05 F-150 Short Bed 1997-03 and 2004 F-150 Heritage
M-98150-SB2 M-98150-SCS	F-150 Short Bed 2004-05 F-150 SuperCrew Short Bed 2000-03 and 2004 F-150 Heritage
M-98150-SS2 M-98250-LB M-98250-SB M-98300-ST	F-150 5.5 Foot Bed 2004-05 F-250/350 Long Bed 1999-05 F-250/350 Short Bed 1999-05 Explorer Sport Trac 2000-05

## FORD RACING BEDLINER

KEEP YOUR TRUCK'S BED FINISH INTACT AND SCRATCH-FREE WHILE SHOWING YOU'RE A FORD RACING FAN WITH A BEDLINER FROM FORD RACING!

- Ford Racing logo molded into bedliner
- Original equipment quality and finish
- Fits all 2004-05 new model F-150s
- Minimum purchase lot of 250 bedliners
- Available for the following applications:

• • •
5.5' Bed
6.5' Bed
8.0' Bed
6.5' Flareside Bed



212 Tech "Hot Line" (586) 468-1356

( Jord)

C TINF



#### FORD RACING MTX THUNDERFORMS AUDIO SYSTEMS

- 200w Amplifier
- Interior color coordinated
- Complete instructions included



**M-21000-FENB** Fits in rear cargo net hole of 1997-02 Expedition/Navigator.



#### M-21000-FEXB

Fits in rear cargo net hole of 1991-01 Explorer/Mountaineer/Navajo.

M-21000-FRPG	Gray 1997-03*
M-21000-FRPB	Blue 1997-03
M-21000-FRPT	Tan 1997-03*
M-21000-FRPC	Charcoal 1997-03*
M-21000-FRPM	Maroon 1997-03*
M-21000-FRPW	Willow Green 1997-03*
M-21000-R4T	Tan 2004-05*
M-21000-R4G	Gray 2004-05*
M-21000-R4C	Charcoal 2004-05
M-21000-R4B	Black 2004-05
These fit behind seat of	FE-150 Regular Cab

These fit behind seat of F-150 Regular Cab.





M-21000-FSCC Charcoal\* M-21000-FSCT Tan M-21000-FSCG Gray\* These fit under rear seat of 2001-03 F-150 SuperCrew.

M-21000-FXPG M-21000-FXPT M-21000-FXPM M-21000-FXPW M-21000-FXPC These fit under rear seat of 1997-03 F-150 Extended Cab.

Gray\* Tan\* Maroon\* Willow Green\* Charcoal\*



M-21000-C4T Tan M-21000-C4G Gray M-21000-C4C M-21000-C4B These fit under rear seat of F-150

Charcoal Black

Extended Cab and SuperCrew.

M-21000-RMPB M-21000-RMPW M-21000-RMPG **M-21000-RMPT** 

Blue Willow Green Gray Tan

These fit behind seat of 1993-97 Ranger Regular Cab.







M-21000-RMP1G Gray M-21000-RMP1T Tan M-21000-RMP1B Blue M-21000-RMP1W Willow Green M-21000-RMP1C Charcoal These fit behind seat of 1998-04 Ranger Regular Cab.





## **BIGFOOT MONSTER TRUCKS**

More than 25 years after a young couple began to nurture a dream, the reality of their dream— BIGF00T monster trucks—continues to surprise them. Bob and Marilyn Chandler's BIGF00T is a true American success story, known and loved across the country and around the world!

It began in the mid-1970s when Bob Chandler was working as a construction contractor in St. Louis. Chandler, who was using his tough Ford F-250 4x4 pickup both on the job and on weekends for off-road family fun, found ways to "break" even the toughest of trucks. Yet, he couldn't find a place in the Midwest that offered 4x4 parts and service.

Recognizing a potential market, the Chandlers started Midwest Four Wheel Drive Performance Center. They still used their Ford 4x4 as a work truck primarily, and partly as a promotional tool for their business. They tried out new parts on it and kept making it bigger and better until, soon, the truck itself became an attraction. In 1979, it debuted at its first paid event, a Denver car show. The popularity of this show led to appearances at truck pulls in arenas and stadiums.

In 1981, Chandler tried a stunt that fueled an explosion of fan interest. He drove his massive BIGFOOT over a couple of junk cars. A few months later, he duplicated the spectacle at a stadium show. His feat made car crushing a staple at major truck pulling and mud racing events.

By 1987, car crushing had become passé. Given the strong appeal of monster trucks, the logical move was to start racing them. Racing quickly replaced exhibition car crushing...and the rest is history.

Since 1983, BIGF00T has had a sponsorship association with Ford Motor Company. In that time, the BIGF00T fleet has grown to 16 monster machines and the Ford F-Series "Built Ford Tough" pickup has become the world's best selling vehicle.

**Plus:** 

- Functional Ram Air Hood
- 12,000 lb. Winch and Winch Bumper
- Heavy-duty Rear Bumper with Lamps and Diamond Tread
- Light Bar Fog Lamps and Diamond Tread Mount
- Pinch Weld Diamond Tread Covers

Monster Truck Traction Bars



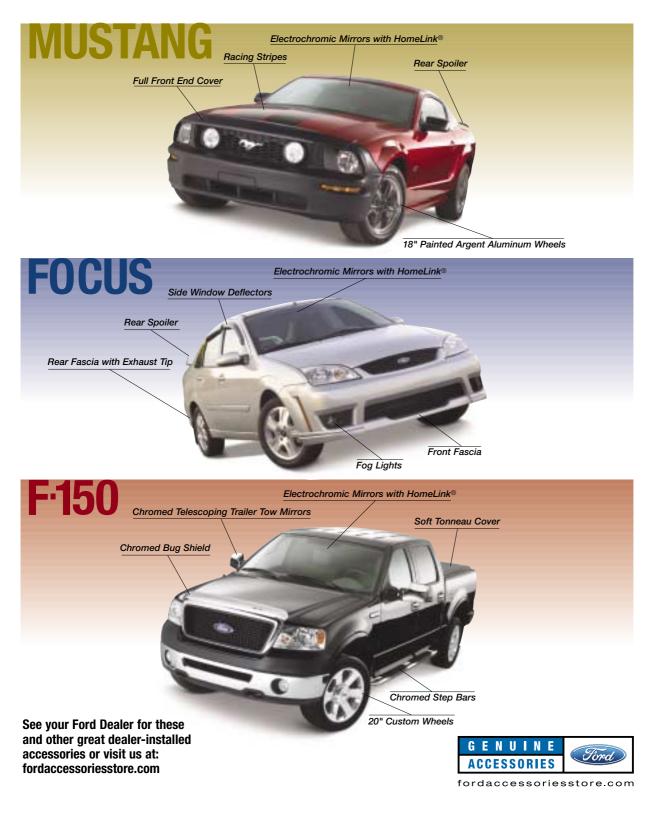
spension Travel Enhancement and Nitro Shocks



# PERFORMANCE AFFILIATES

# **GENUINE FORD ACCESSORIES**

Rev up your Mustang, Focus or F-150 with Genuine Ford Accessories. They're on the mark – designed for a precise fit and backed by one of the industry's strongest limited warranties. Go to your Ford Dealer today, because lots of places sell accessories, but only Ford Dealers have Genuine Ford Accessories.



## ENGINE DIMENSIONS



### **BASIC ENGINE DIMENSIONS (INCHES)**

DISPLACEMENT	YEARS	BORE	STROKE	BORE Spacing	MAIN Journal Dia.	rod Journal Dia.	CON ROD Length (Mean)	CRANKSHAFT Center Line To Deck	COMPRESSIO DISTANCE PISTON PIN T TOP OF PISTO
.6L Kent	1971-73	3.188	3.056	3.780	2.1253	1.9372	4.9280	8.2272	
6L CVH	1981-85	3.150	3.130	3.614	2.3830	1.8855	5.1945	8.212	1.451
9L CVH	1985-87	3.230	3.465	3.614	2.3830	1.8855	5.1945	8.378	1.451
9L CVH	1988-96	3.230	3.465	3.614	2.3830	1.7283	5.1945	8.378	1.451
8L ZETEC DOHC	1991-96 1997-98	3.270 3.339	3.350 3.465	3.583 3.614	1.966 2.3830	<u>1.771</u> 1.7283	5.23 5.1945	8.13 8.378	1.108 1.451
OL OHC ①	1971-74	3.575	3.029	4.016	2.2436	2.0468	4.9820	8.146	1.595 ⑦
OL OHC @	1983-87	3.520	3.126	4.173	2.3986	2.0468	5.2047	8.368	1.583
OL ZETEC	1995-04	3.339	3.465	3.614	2.2831	1.8465	5.3618 9	8.378	1.3012 @
0L V-6	2001-04	3.215	2.631	4.0157	2.479	1.967	5.686	8.189	1.181
2L Probe	1988-92	3.390	3.700	3.810	2.360	2.0058	6.2000	9.500	1.450
3L OHC	1974-97	3.780	3.126	4.173	2.3986	2.0468	5.2047	8.368	1.583
3L I-4	2001-04	3.445	3.701	3.780	2.047	1.968	6.094	9.094	1.122
5L OHC	1998	3.780	3.401	4.173	2.3986	2.0468	5.457	8.368	1.2105
3L HSC	1984-94	3.680	3.300	4.080	2.24895	2.1236	5.4570	8.700	1.520
5L HSC	1986-91	3.680	3.583	4.080	2.24895	2.1236	5.990	9.400	1.579
5L V-6 «	1995-99	3.2447	3.1299	4.0157	2.4795	1.9677	5.4370	8.1890	1.1811
5L V-6 «	1999-04	3.215	3.1299	4.0157	2.4795	1.9677	5.437	8.189	1.1811
6L V-6	1972-73	3.545	2.630	4.760	2.2437	2.1270		8.084	1.546
8L V-6	1974-80	3.650	2.700	4.760	2.2437	2.1270	5.1400	8.084	1.539
9L V-6	1986-92	3.661	2.835	4.760	2.2443	2.1256	5.1400	8.858	1.461
0L V-6	1986-04	3.504	3.1496	4.330	2.5194	2.1257 ④	5.5315 5	8.661	1.5354
0L V-6 ®	1997-04	3.504	3.1299	4.0157	2.4795	1.9677	5.4370	8.1890	1.1811
4L V-8 SHO	1996	3.2447	3.1299	4.0157	2.4795	1.9677	5.4370	8.1890	1.1811
8L V-6	1982-95	3.810	3.390	4.193	2.5194 @	2.3107	5.9135	9.232	1.602
8L V-6	1997-03	3.810	3.390	4.193	2.5194	2.3107	6.091	9.232	1.450
9L V-6	2004 2000-04	3.81	3.464	4.193	2.5194	2.3107	6.091	9.232	1.410
9L V-8 0L V-6	1990-00	3.3858 3.950	3.346 3.32	3.858 4.760	2.4409 2.2437	2.2047 2.1256	6.115 5.748	8.88	1.211 1.458
0L V-6	1990-00	3.950	3.32	4.760	2.2437	2.1256	5.748	8.858 8.858	1.436
2L V-6	1997-04	3.810	3.74	4.193	2.5194	2.3107	6.091	9.232	1.273
5L Ford Racing	3	4.080	3.500	4.469	2.749	2.100	6.088	9.232	3
00 I-6	1963-83	3.680	3.126	4.080	2.2486	2.1236	4.7150	7.808	1.511
50 I-6	1969-80	3.680	3.910	4.080	2.3986	2.1236	5.8800	7.808	
40 1-6	1965-72	4.000	3.180	4.480	2.3986	2.1232	6.7947	10.000	1.605
00 1-6	1965-96	4.000	3.980	4.480	2.3986	2.1232	6.2097	10.000	1.757
21 V-8	1962-63	3.500	2.870	4.380	2.2486	2.1232	5.1550	8.206	1.595
55 V-8	1979-82	3.680	3.000	4.380	2.2486	2.1232	5.1550	8.206	1.600
60 V-8	1962-64	3.800	2.870	4.380	2.2486	2.1232	5.1550	8.206	1.600
6L V-8	1991-04	3.552	3.5433	3.9370	2.6572	2.0863	5.9331	8.9370	1.2205
4L V-8	1997-04	3.552	4.165	3.9370	2.6572	2.0863	6.6575	10.0787	_
8L V-10	1997-04	3.552	4.165	3.9370	2.6572	2.0863	6.6573	10.0787	1.2205
0L V-12	1999-04	3.504	3.1299	4.0157	2.4795	1.9677	5.437	8.189	1.1811
39	1963-68	4.000	2.870	4.380	2.2486	2.1232	5.1550	8.206	1.605
)2	1968-96	4.000	3.000	4.380	2.2486	2.1232	5.0900	8.206	1.605
D2 BOSS	1969-70	4.000	3.000	4.380	2.2486	2.1226	5.1500	8.201-8.21	1.530
02 Ford Racing	3	4.000	3.000	4.380	2.2486	2.1226	5.1500	8.201-8.21	3
51W	1969-70	4.000	3.500	4.380	3.000	2.311	5.956	9.480 (1969-70)	1.769
51W	1969-96	4.000	3.500	4.380	3.000	2.311	5.956	9.503 (1971-96)	1.769
51 Ford Racing	3	4.000	3.500 3.500	4.380	2.749	2.311	5.956	9.503 9.206	3
51 Ford Racing 51C BOSS *	3 1970-74	4.000	3.500	4.380	2.2486 2.749	2.311 2.311	5.7800 5.7800	9.206	③ 1.647
510 BUSS *	1970-74	4.000	3.500	4.380	2.749	2.311	6.5800	9.206	1.647
00	1975-85	4.000	4.000	4.380	2.9998	2.3107	6.5800	10.297	1.647
52	1960-66	4.000	3.500	4.630	2.749	2.4380	6.5400	10.170	1.825
90	1961-71	4.050	3.780	4.630	2.749	2.4380	6.4890	10.170	1.775
)6	1962-63	4.130	3.780	4.630	2.749	2.4380	6.4890	10.170	1.745
0	1966-67	4.050	3.980	4.630	2.749	2.4380	6.4890	10.170	1.674
27	1963-68	4.230	3.780	4.630	2.749	2.4380	6.4890	10.170	1.752
28	1966-70	4.130	3.980	4.630	2.749	2.4380	6.4890	10.170	1.674
9 STD	1968-73	4.360	3.590	4.900	3.000	2.500	6.6050	10.300 (1968-70)	1.890
9 STD	1968-73	4.360	3.590	4.900	3.000	2.500	6.6050	10.310 (19701/2-7	
29 CJ/SCJ	1969-70	4.360	3.590	4.900	3.000	2.500	6.6050	10.322 (1972-73)	1.890
29 BOSS (S)	1969	4.360	3.590	4.900	3.000	2.500	6.5490	10.300	1.926
29 BOSS (T)	1969-70	4.360	3.590	4.900	3.000	2.500	6.6050	10.300	1.870
60/460 Ford Racing	g 1969-96	4.360	3.850	4.900	3.000	2.500	6.6050	10.322 (1972-96)	1.756
Car (EAO) Ranger/Bronco II Non-production bl Dimensions for ret	locks. 6	3.0L SHO – 2 3.0L SHO – 5 3.8L SC #1-2 #4 – 2.5096		<ul> <li>⑦ Sport 200</li> <li>⑧ Duratec</li> <li>⑨ 1997 – 5</li> <li>⑩ 1997 – 1</li> </ul>	00 – 1.6395" .482" .181"	NOTES	are metric • 3.9L V-8 ι	der (except 1.6L Kent) . Dimensions shown ir Ised in the Thunderbir n the Jaguar V8 desig	i inches. d & Lincoln LS

# **4-CYLINDER ENGINES**

### 1.6L KENT/1.6L/1.9L CVH/2.0L/2.3L OHC/2.3L/2.5L HSC

#### **1.6L "KENT" ENGINE**

This is a proven overhead valve design. The combustion face of the head is virtually flat. Most of the combustion chamber is in a dished piston. Camshafts are mechanical with solid tappets. Parts for this engine are identified as 1.6L Kent. You'll find it under the hood of many Ford models, including Pinto, Capri, Fiesta and the English built Cortina. A "GT" performance version is the basis for an amateur class of racing...Formula Ford. Only production-type parts are normally legal in "formula" competition. Check with your racing association for the latest rules.

#### 1.6L "CVH" AND 1.9L "CVH" ENGINES

The 1.6L CVH engine was introduced in 1981 for the Escort, Lynx, EXP and LN7 car line. Parts for this engine are identified as 1.6L CVH. It has a canted valve head (CVH) with the valve angles to match the hemispherical combustion chambers. Reliefs are cut into its domed pistons to match valve and combustion chamber configuration. A hydraulic camshaft is used in production. A performance version was introduced in 1984 with electronic fuel injection and a turbocharger. A 1.9L CVH was introduced on 19851/2 models. It has a 4.250mm higher deck height to achieve a longer stroke. Some 1.6L/1.9L CVH parts are interchangeable.

#### 1.6L/1.8L/2.0L DOHC ENGINE

Ford currently offers four double overhead cam 4-cylinder engines. The 1.6L DOHC was introduced on 1991 Capri, the 1.8L DOHC on 1991 Escort GT/Tracer LTS, a 2.0L DOHC on 1993 Probe, and a second 2.0L DOHC design on the 1995 Contour/Mystique. These engines feature four valves per cylinder and a centrally located spark plug in a "pentroof" combustion chamber for efficient air flow and combustion. Ford Racing parts have not been developed for these production double overhead cam engines.

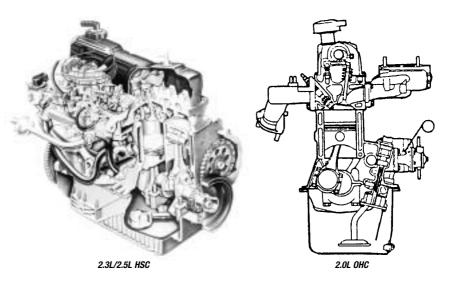
#### 2.0L/2.3L/2.3L OHC ENGINES

Design-wise, these metric engines are very similar and have a belt-driven overhead camshaft. Dimensionally, however, they are very different in terms of bore, stroke, bore spacing, block deck height and crankshaft journal diameters. The European (EAO) 2.0L was produced in 1971-74 cars. The 2.3L OHC is widely found on 1974-95 models...including a high-tech version that powered the Thunderbird/Cougar Turbo Coupe. A two spark plug per cylinder design with distributorless ignition was introduced on 1989 Ranger and 1991 Mustang models. Parts for





2.3L OHC (Turbo-Intercooled)



Ford Racing offers parts for five different 4-cylinder engines. Each is a unique design, and none of the major components can be interchanged between engines. Be sure to correctly identify your engine before ordering parts.

these engines are identified as 2.0L EAO and 2.3L OHC respectively. In 1983, a 2.0L version of the 2.3L OHC engine was introduced on Ranger and Aerostar trucks. The only basic difference is in bore diameter, as shown in the chart on page 217, thus most parts interchange. Parts shown for the 2.3L OHC can be used in the 2.0L truck engine, except those relating to bore diameter (pistons, etc.). In 1998 the Ranger engine grows to 2.5L with increased stroke.

#### **2.2L PROBE ENGINE**

Ford introduced a new fuel injected 2.2L engine (in naturally aspirated and turbo versions) for 1989 Probe models. It's an overhead camshaft design with shaft-mounted rocker arms and three valves per cylinder (2 intake, 1 exhaust). The cylinder head is cast from aluminum and features dome shaped combustion chambers with dual squish areas and centrally located spark plug for fast burn combustion. Parts are not interchangeable with other 4-cylinder engines. Ford Racing parts have not yet been developed for the 2.2L engine.

### 2.3L/2.5L "HSC" ENGINES

The 2.3L HSC was introduced in 1984 Tempo/Topaz models. Except for displacement, it bears no resemblance to the 2.3L OHC. The 2.3L HSC is a conventional cam-in-block in-line design—much like a 6-cylinder with two bores chopped off. HSC refers to its swirl combustion chamber that's achieved by shrouding the valves and other minor head work. In 1986, a larger displacement (8mm longer stroke) 2.5L HSC was introduced, with electronic fuel injection.



### 289/302/351W/351C/351M/400

#### SIX WAYS TO BUILD A WINNER

Ford has manufactured millions of small block V-8s over the past 30 years, and Ford Racing parts are available for many of them. You have a choice of six engines to modify (eight, if you count two high performance BOSS versions). So you've got great flexibility working for you, whether you begin with a complete engine assembly or a bare block. All have four-inch bores, but there are differences that affect parts interchange. For example, the water passages described on page 220. Here's a brief description of Ford small blocks.

#### 289/302

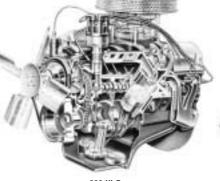
The 289 was produced from 1963 through 1968, and the 302 from 1968 to the current model year. They're very similar, except for stroke. Of special interest is the 289-4V Hi-Performance engine (1963-67) with mechanical camshaft, threaded rocker arm stud (adjustable) and a recessed spring seat. Most other 289/302 (1968-76) engines use a press-in stud. 1978 and later 302 engines use a modified pedestal as shown on page 226. Many 289/302 parts fit earlier 221/260 engines (which had smaller bores). They also had less metal around the bores, so you can't overbore to come up with a 289. The 1985 model Mustang GT introduced a new high-output 302 with roller tappet camshaft. Electronic fuel injection was added in 1986.

#### **302 BOSS**

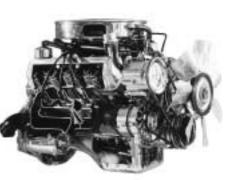
This is certainly one of Ford's all-time super engines. The 302 BOSS (1969-70) proved to be very competitive in 5 liter TransAm racing. It featured big breathing heads with canted valves, mechanical cam, stamped rocker arms with a threaded adjustable stud, push rod guide plates, forged crankshaft, 4-bolt main caps (#2, #3 and #4 journals), beefy con rod with spot-face for .375" bolt and forged pistons.

#### 351W (WINDSOR)

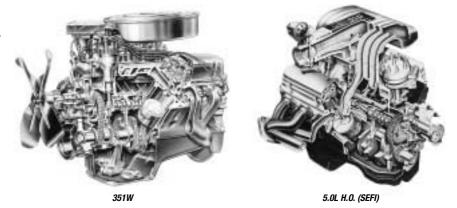
The Windsor engine plant builds this engine: hence the name. Normally, this isn't important. But another engine, the 351C (for Cleveland engine plant), has the same displacement. That's about all they have in common. So, it's always important to differentiate between the two. The 351W is a beefier block than the 289/302, but has the same bore spacing (4.38") and bore diameter (4.00"), so heads retrofit. A higher deck height requires a unique intake manifold. Main journals (3.00") are larger than the 289/302 (2.25"). Camshafts interchange, but the 351W has a different firing order: (1-3-7-2-6-5-4-8) vs. (1-5-4-2-6-3-7-8) for the 289/302, except 1982 and later 302 HO which use the 351W firing order. The 351W has been used from 1969 to the current year.



289 Hi-Per



302 BOSS



#### **MODULAR V-8 ENGINES**

#### 4.6L SOHC, 4.6L DOHC, 5.4L SOHC

In 1991, Ford unleashed a new era of muscle, one that is propelling us into the future. The Modular engine focuses on low friction, excellent sealing, and increased block stiffness. The design results in an extremely smooth running engine using aluminum heads and having all accessories rigidly mounted to the engine. Both the engine block and head are machined to close tolerances to produce a very precise assembly. The head bolts of modular engines actually extend past the cylinder bores into the bearing webs, eliminating bore distortion and providing a better head gasket seal. The sophisticated overhead cam design uses roller finger followers to lower friction and increase the RPM potential of the engine. On the bottom end, the deep skirt engine block and cross-bolted main caps contribute to a highly rigid assembly. Two engine plants manufacture Modular engines; Romeo produces all passenger car versions and Windsor produces the Modular Truck engines. Here's a brief description of Modular V-8 engines.

#### 4.6L SOHC

The 4.6L SOHC (2V) was first introduced in 1991. This engine is the basis for all modular engines and is used in passenger car as well as the trucks. The block is cast iron with a nodular crankshaft, while the heads are aluminum using an in-line valve design with 1 intake and 1 exhaust valve per cylinder. All passenger cars have press fit piston pins, while all truck engines have full floating piston pins to improve durability.

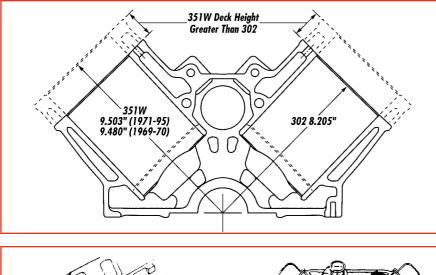
#### 4.6L DOHC

The 4.6L DOHC (4V) was first introduced in the Mark VIII; however, in 1996 a similar version of this engine found its calling the Mustang Cobra. The aluminum block and four valve head make for a powerful combination producing 305 HP @ 7000 RPM. Internally, the 4 bolt, cross-bolted main bearing caps provide the support necessary to easily handle the high RPM potential of the forged steel crankshaft. This engine uses hypereutectic pistons with full floating piston pins and upgraded connecting rod assemblies to improve durability.

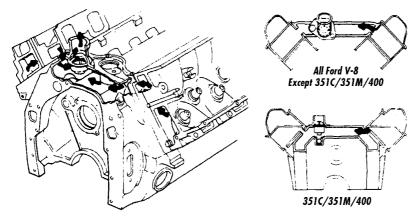
#### 5.4L SOHC

The 5.4L SOHC (2V) "Triton" engine released in trucks for 1997 is producing favorable reactions. This engine has a cast iron block, forged steel crankshaft, full floating piston pins and special 6000 RPM connecting rods. It is the 5.8L pushrod engine replacement.

# SMALL BLOCK V-8 ENGINES







Witer Passage

#### **351C (CLEVELAND)**

The 351C entered the scene in 1970 and was produced until 1974. It has canted valves with multi-groove keepers, hydraulic cam, pedestal-mounted rocker arms with "sled" fulcrum seats that are retained with cap bolts. Heads for 2V induction have open chambers with rounded ports, while 4V heads have "quench" combustion chambers with larger rounded intake and exhaust ports. A 351C Cobra Jet appeared in 1971 with 4-bolt main caps, which was carried over in 1972 as the 351C-4V with open chamber heads.

#### **351C BOSS**

The 351C BOSS also appeared in 1971. It had 4-bolt main caps and the 4V type quench chamber head with pedestals machined to accept a 302 BOSS type valve train and mechanical cam. The con rod featured a 180,000 psi .375" bolt. In 1972, open chamber heads were used with a flat-top piston, and the name changed to 351C HO.

#### 351M (MODIFIED) AND 400

The 351M and 400 are similar in design to the 351C, but there are subtle differences. Both the 351M and 400 blocks are 1.100" taller and have larger main journal diameters. Engine mounts are unique. Bell housing pattern is the 429/460 design.

#### WINDSOR VS. CLEVELAND WATER PASSAGES

289/302/351W engines use a front cover and water exits the intake manifold face of the cylinder head through the intake manifold to radiator. 351C/351M/400 engines do not use a front cover. The block is extended and covered with a flat stamping. Water exits the combustion face of the head and into the block, and then to the radiator. Windsor and Cleveland heads physically interchange, but some modification is required to accommodate the differences in water passages. See page 226 and above for details.

#### FORD RACING 302/351 FORD RACING WATER PASSAGES

Several different water passage hole patterns have been used on 302 Ford Racing and 351 Ford Racing cylinder blocks and heads since their introduction. Engine assemblers should lay the head gasket on the block and the cylinder head (with front of the gasket toward the front of the engine) to make sure there is a path for coolant flow from the block into the head. In some cases, holes may have to be drilled in the block or head, or punched in the gasket. Current Ford Racing cylinder head gaskets are listed on page 104.

#### FORD RACING 302/351 "FORD RACING" ENGINE BLOCKS

Ford Racing has designed several "Ford Racing" blocks for maximum performance competition. They're designed for small block engine builders who want to use existing 302/351C or 351W components. 302/351 Ford Racing engines constructed with Ford Racing block and Ford Racing cylinder heads are not available as complete assemblies.

When ordering parts, consider these key points:

- 302 Ford Racing Block (M-6010-R302)—can be used with all 289/302/302 BOSS applications.
- 351 Ford Racing Blocks (M-6010-E351 thru M-6010-W351)—can be used with all production 351W applications, except those relating to crankshaft main bearing diameter. The 351 Ford Racing block is machined for the smaller 351C type bearings. Ford Racing crankshafts feature the smaller 351C main journals that are compatible with these blocks. The block is available in two deck heights (9.500" and 9.200"), so either Windsor or Cleveland components can be used topside. Requires 289/302/351W type camshaft.
- If 302/351 Ford Racing heads are used on 302/351 Ford Racing blocks, the Ford Racing type intake manifolds are required.

# **BIG BLOCK V-8 ENGINES**



### 429/429CJ/429SCJ/429 BOSS/460

During The Golden Age of Muscle, high performance versions of 429/460 engines flashed on the scene like a firefly. The glow was brief—from 1969 to 1971. The memory lingers on. All of those cubic inches! Never again available directly from the factory ready for competition. Luckily, engines and pieces are still around. There are several ways to go, depending on the performance level you want, be it simply a Bracket Drag Racer, or something more potent, like an offshore power boat, big torquing engine for truck pulls or a Pro Stock drag machine. Here's a brief description of production engines to give you an idea of part interchangeability and general performance level.

#### 429/460

D. Hays

The 429 "Thunder Jet" was introduced in 1968. It's your basic passenger car "wedge" engine design with hydraulic cam, 2-bolt main caps, and either 2V or 4V carburetor. Cast iron "rail" rocker arms are mounted on non-adjustable, positive stop studs (1968-72). 1973 and later 429/460 engines use pedestal-mount rocker arms as described for 351C engines on page 225. The 460 is a stroked version of the 429. With modifications, these engines can be used for most competition, except offshore boats or with a supercharger.

#### 429CJ (COBRA JET)

Take a base 429, then add a hotter hydraulic cam, larger CFM carburetor, heads with bigger ports and valves, plus a few other items and you have a 429CJ. 1970 engines had 2-bolt mains; 1971 models 4-bolts. Engines built before 11/1/69 use an adjustable, non-positive stop rocker arm stud, so a mechanical cam is easily installed.

#### 429SCJ (SUPER COBRA JET)

Now, we're talking about an engine you can modify for serious competition. The 429SCJ has 4-bolt main caps (#2, #3, and #4 journals), mechanical cam, adjustable non-positive stop rocker arm studs, stamped rocker arms and push rod guide plates. The pistons are forged aluminum and con rod bolt seats are spot faced. As with the CJ, production ended in 1971.

#### **429 BOSS**

This is an all-out competition design with aluminum heads and hemi combustion chambers (technically, they're "crescent-shaped"). The first few hundred in 1969 for NASCAR competition were called "S" engines; the later street version is a "T" engine. "T" engine con rods are spot faced for a .375" bolt and hex nut. "S" engine con rods are beefier, 0.056" shorter, have wider bearing journals and use a .5" bolt with 12-point nut.







# ENGINE BUILDING TIPS AND SPECS

#### WE THOUGHT YOU OUGHT TO KNOW

This is not a how-to book. It's basically a listing of currently available Ford Racing Performance Parts. The pieces can be bought by professionals, professional amateurs, weekend hobbyists or rank beginners. A certain amount of automotive skill is assumed in presenting the parts. Modifying an engine, be it a complete assembly or a bare block, requires experience and know-how. If you don't know, ask someone who does. Read up and find out all you can **before** putting down your bucks for those long dreamed of pieces. And if at all possible, consult an experienced engine builder. You may find it to your advantage to have him do a portion or all of the heavy machining and wrenching.

What we have here are just a few of the key bits of information and specs. The idea is to help keep midnight thrashing to a minimum, because parts don't go together right, or there's more to a job than you imagined.

#### **COMPRESSION RATIO**

Increasing the compression ratio (CR) is often one of the first engine performance modifications. Squeezing the air-fuel mixture into a smaller space increases its temperature and ease of ignition; thus the rate at which heat is extracted from the fuel. Engineers call it "thermal efficiency." Simply put, it means that increasing the compression ratio increases horsepower.

Henry Ford's Model "T" has a CR of 3.6:1. High performance engines operate in the area of 12.5:1. Most of today's stock production engines are about 8.5:1.

**NOTE:** Turbocharged engines typically have a **lower** CR than normally aspirated engines. Thus, if you add a turbo, you may want to **lower** the CR, depending on performance level.

#### DETONATION

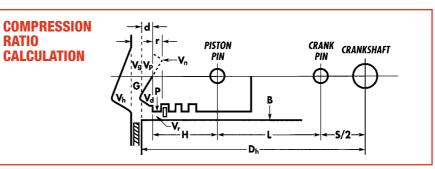
Increasing the CR changes the rate at which fuel burns. Spark knock (detonation) will occur if certain modifications are not performed. Here are two of the most important: **Ignition Spark Timing**—Increasing the CR requires installation of new distributor springs

to change advance curve. **Fuel Octane Rating**—Increasing the CR requires gasoline with a high octane rating (with anti-knock components to control detonation). This is not a problem with engines that burn alcohol, because it has a naturally high octane number. Engines that run on alcohol require a high CR to compensate for the fact that it generates less heat.

#### **MODIFICATION TECHNIQUES**

Common techniques to increase CR include:

- (1) Installation of a thinner head gasket.
- (2) Installation of "domed" or "pop-up" pistons. Check for adequate "piston-to-valve" clearance at TDC. Camshafts with more overlap require more clearance. A good rule of thumb is 0.080" for intakes and 0.100" for exhausts.
- (3) Removal of metal from deck face of block or cylinder head. You can safely mill off 0.010" to 0.040" (0.050" max.) from most engines.



SYMBOL	DIMENSION	VALUE	REMARKS
В	Bore	4.000 in	$B^2 = 4.000 \text{ x } 4.000 = 16.000$
G	Gasket Bore	4.100 in	$G^2 = -4.100 \times 4.100 = 16.810$
Р	Piston Top Land Diameter	3.965 in	P <sup>2</sup> = 3.965 x 3.965 = 15.721
S	Stroke	3.500 in	
S/2	Crank Throw	1.750 in	
L	Con Rod Length	6.000 in	
Н	Compression Height	1.440 in	
Dh	Deck Height	9.200 in	
r	Ring-to-Top Piston	0.250 in	
d	Piston to Deck	0.010 in	$D_h - H - I - S/2$
t	Gasket Thickness	0.040 in	
V	Cylinder Volume	720.7cc	π/4 x B² x S x 16.387
Vt	Volume Above Top Ring	.9cc	π/4 x (B <sup>2</sup> – P <sup>2</sup> ) x r x 16.387
Vn	Valve Notches Volume	4.0cc	
Vd	Dome Volume	10.4cc	
Vp	Piston-to-Deck Volume	2.1cc	π/4 x B <sup>2</sup> x d x 16.387
Vg	Gasket Volume	8.7cc	π/4 x G² x t x 16.387
Vh	Volume Head	60.2cc	
Vcl	Volume Clearance	65.5cc	$V_t + V_n + V_p + V_g + V_h - V_d$
CR	Compression Ratio	12.0	$\frac{V + V_{cl}}{V_{cl}}$

**NOTE:** 1) Math reduction;  $\pi/4 \times 16.387 = 12.87$ 

The precise amount is limited by block deck height, casting thickness, valve-to-piston clearance, etc.

**NOTE:** Also modify the intake manifold to maintain port alignment.

#### COMPUTING COMPRESSION RATIO

Compression ratio is defined as the ratio between the Total Volume (Cylinder Volume plus Clearance Volume) above the piston at BDC and the Clearance Volume above it at TDC. Calculations for a 351 CID engine are illustrated. The formula is:  $CR = \frac{V + V_{cl}}{V_{cl}}$ 

Pay particular attention to the following points: **Clearance Volume (V**a)—This is the volume above the piston (actually above top piston ring) at TDC. It consists of several small volumes. **Cylinder (Swept) Volume (V)**—Determined by cylinder bore and stroke (indicated by movement of piston from TDC to BDC).

#### Cylinder Head (Combustion Chamber)

Volume (V<sub>3</sub>)—The irregular shape of the combustion chamber requires measurement (popularly called "cc"ing) with a glass burette and colored liquid, such as A.T. fluid. This catalog lists "nominal" values for Ford Racing heads. Valve Notches Volume (V<sub>3</sub>)—Fill notches with soft clay and make level with top of piston. Remove clay with small knife and drop into graduated cylinder (filled with liquid to convenient point). Note change in level of liquid (indicating volume of notches made by clay). Domed Piston Volume (V<sub>4</sub>)—Dome values

**Domed Piston Volume (V**<sub>4</sub>)—Dome values are combination "net" values of V<sub>4</sub> and V<sub>6</sub>. For compression ratio calculations, they should be used as follows:

- **Pop-Up** pistons have a "positive" dome value, which reduces the volume above the piston and thus must be subtracted (see example above).
- **Dished pistons** have a "negative" dome value. It must be added to compute clearance volume.

MAKE ALL CALCULATIONS WITH ACCURATE MEASUREMENTS OF ACTUAL PARTS. CATALOG VALUES ARE "NOMINAL" SPECIFICATIONS AND MAY VARY FROM ACTUAL SIZE.



### VALVE TRAIN

When modifying production engines for performance, here are a few things to keep in mind.

#### **CAMSHAFTS**

- When replacing a cam, it's a good practice to install new related components such as a distributor gear, tappets, springs, retainers, etc. It's especially important that new tappets be installed.
- Never use hydraulic lifters with a mechanical cam or solid tappets with a hydraulic cam. The ramps are not compatible.
- Be sure your valve train can handle the timing events and lobe lift of your performance cam. Check for adequate piston-to-valve clearance, spring bind and retainer-to-valve clearance, spring bind and retainer-to-valve seal clearance.
- Be sure to use camshaft and lifter prelube when installing the cam, to prevent scoring the lobes during break-in. Engine oil by itself (regardless of quality or viscosity) is not enough! See page 224 for description of Ford Racing prelube M-19579-A12.
- Mechanical cams require lash adjustment. If production head is designed for hydraulic cam, modification is usually required.
- Many design changes have occurred over the years, which affect the front of the block especially the small V-8s. Be sure you check items such as the cam thrust plate, cam spacers, cam gear, fuel pump eccentric, timing chain, cam gear alignment and front cover clearance.
- Refer to the Ford Racing "Camshaft Usage" chart for performance characteristics of cams based on their duration.
- Refer to the "Camshaft Specifications" chart (page 85) for detailed data on Ford Racing camshafts.

### FORD RACING CAMSHAFT USAGE

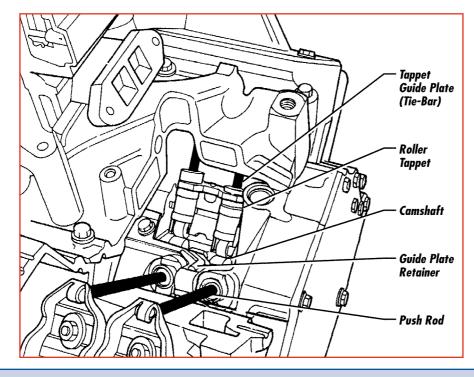
The durations shown in this chart are S.A.E. durations. The descriptions within each group of cams show performance characteristics and basic modification recommendations required to achieve desired performance.

DURATION (SAE)	PERFORMANCE CHARACTERISTICS	ENGINE/VEHICLE USAGE AND MODIFICATIONS
270-290	Good idle quality and low RPM torque.	Use with stock or slightly modified engine, stock axle gears and with A.T. or M.T.
290-300	Fair idle quality. Good low-to- mid-range torque and horsepower.	Will work with stock or modified engine. Can use stock axle gears and with A.T. or M.T.
300-320	Rough idle quality. Good mid-to- high RPM torque and horsepower.	Use with M.T. or high stall A.T. Requires improved carburetion, ignition and exhaust systems. Engine will have lower vacuum than stock.
320-340	Rough idle quality. Good mid-to- high RPM torque and horsepower. For all-out competition only.	Use with M.T. or very high stall A.T. Requires improved carburetion, ignition and exhaust systems. Engine will not provide enough vacuum for accessories. Axle gear ratios must be properly selected.

#### **ROLLER TAPPET CAMSHAFT**

Most engines are designed with hydraulic or mechanical flat tappet camshafts, which meet the needs of regular production engines that seldom see 6000 RPM. Flat tappet cams are more than adequate for many competition engines. For ultra-high performance applications where durability and high RPM capability are paramount, however, roller tappet camshafts are very popular. As the name implies, a cylindrical roller "rolls" over the cam lobe, instead of "sliding" as does a conventional flat tappet. This not only allows a roller tappet to follow a more radical cam lobe profile, but it reduces friction and lessens tappet scuffing of the cam lobes.

Ford introduced hydraulic roller tappet camshafts on 1985 Mustang (and Mark VII LSC) with 302 (5.0L) High Output engine. Here is a brief description of components.



**Roller Tappet**—Longer than flat tappet, because of roller. Hydraulic portion functions like a standard flat tappet.

**Roller Tappet Camshaft**—Machined from steel, instead of typical iron used for flat tappet cam. Cam lobes specially ground and hardened to withstand loads of roller tappets. Do not attempt to use with flat tappets!

**Roller Tappet Block**—Longer, production 5.0L hydraulic roller tappet requires higher tappet boss than block for flat tappet cam. Thus, 5.0L hydraulic roller tappet cam cannot be used in block designed for flat tappet cam. However, flat tappet camshafts can be used in roller tappet blocks.

**Roller Tappet Distributor Gear**—Machined from steel and specially hardened to be compatible with billet-steel roller camshaft. Do not attempt to use cast iron gears designed for flat tappet cams.

**Roller Tappet Push Rod**—Push rods are shorter than those designed for flat tappet cam engine, because of longer roller tappet. Rocker arm end has hardened ball that is copper plated to resist wear by rocker arms rubbing on push rod (which don't rotate). A small bracket encircles one end of push rod as reminder to install that end upward (on 1985-86 models only).

**Roller Tappet Guide Plate**—Holds roller tappets in alignment with camshaft lobes (flat tappets rotate). Must be installed with "UP" marking upward.

**Roller Tappet Guide Plate Retainer**—Made of spring steel. Fits in valley cover area to hold guide plates in position.

#### **ROLLER ROCKER ARMS**

Most production engines use stamped steel or cast iron rocker arms, as described on page 225. As the push rod moves one end upward—the rocker arm pivots on a ball or sled-type fulcrum and the other end pushes the valve downward. Although "sliding" friction exists at each point, this design is okay for street engines and even many performance applications.

# ENGINE BUILDING TIPS AND SPECS

### **ROLLER ROCKER ARMS**

(Continued from page 223)

Lightweight aluminum roller rocker arms, however, provide many advantages for continuous high RPM operation. They're mounted on needle bearings and feature a cylindrical roller that "rolls" over the valve tip to move it downward. This reduces friction, heat and wear, and only requires about half the horsepower to operate the valve train. And valve train stability is greatly increased. Roller rockers reduce valve stem wear and valve guide wear to an absolute minimum, because the roller doesn't push the valve from side-to-side as it is opened, as occurs with standard rocker arms, as they "slide" over the valve tip.

Ford Racing offers roller rocker arms in several ratios for the Ford Racing V-6, small block V-8s and big block 429/460 V-8's.

#### FORD RACING ROLLER TAPPET CAMSHAFTS

Ford Racing offers roller tappet camshafts for the following engines:

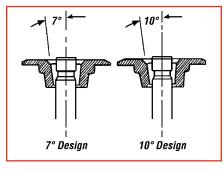
#### 5.0L (302) HO

M-6250-B303*	Roller Camshaft only
M-6250-E303*	Roller Camshaft only
M-6250-F303*	Roller Camshaft only
M-6250-X303*	Roller Camshaft only
M-6250-Z303*	Roller Camshaft only

#### VALVE SPRING RETAINERS AND KEEPERS

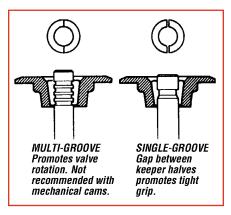
Currently Ford Racing only offers retainers and single-lock groove keepers in a 7-degree design. They are compatible with all Ford Racing valve springs for the Ford Racing V-6, small block V-8s and big block 429/460 V-8s. 10-degree retainers/keepers are available from aftermarket suppliers. Do not attempt to interchange 7-degree retainers with 10-degree keepers and vice versa.

Single-lock groove keepers are recommended for high performance engines. Production 351C (except BOSS and HO) 351M and 400 engines use multi-groove keepers (to promote valve rotation). If you modify for any extended high revving performance, replace the valves, retainers and keepers with a single-lock groove design.



#### **POSITIVE-TYPE OIL SEALS**

Positive-type oil seals are recommended on OHV performance engines to prevent oil from running down the valve past the valve guide and into the combustion chamber and contaminating the air-fuel mixture. The cylinder head must be machined as illustrated to accept the oil seal.



#### **VALVE PUSH RODS**

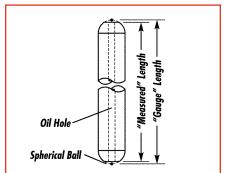
Hardened push rods are required on valve trains that use a guide plate (because they rub against the plate). Do not use non-hardened push rods.

Push rod length is important to maintain correct valve train geometry. The process of drilling an oil hole down the center removes some material from the spherical ball at each end. Push rods are described by "Gage length" (the distance between the ends before drilling the oil hole). The actual "Measured" length is usually about 0.025" shorter than the gage length.

#### CAMSHAFT TIMING DEGREE WHEEL

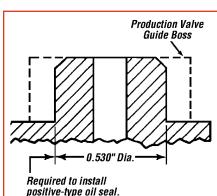
No camshaft installation is complete without checking camshaft timing events. Use a timing degree wheel to check for correct camshaft installation.

For modular engines use camshaft timing kit M-6266-D46.



#### CAMSHAFT AND LIFTER PRELUBE M-19579-A12

- Highest-quality cam lube for camshaft replacement and engine assembly
- Recommended for use with all Ford Racing flat tappet camshafts
- Distributed in cases of 12
- Single bottles may be available from your Ford Racing distributor part number CM-19579-A1



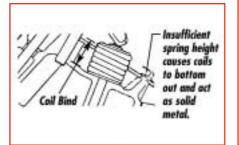






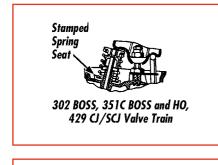
#### **VALVE SPRINGS AND THINGS**

Valve springs are a critical part of valve train operation. They're designed to exert a specific load at a specific installed height, thus spring selection and installation are important. A single spring is generally used for stock engines. Dual or triple springs are often necessary for performance applications to increase the load for a given installed height. If installed height isn't sufficient to handle camshaft lobe lift, coil bind may occur.



Installed spring height is the distance from the spring seat to the bottom of the valve retainer. Shims can be used under the spring to change spring height. If installed under stamped seat, shims and seat must have same outside diameter. Spring seats on most production engines consist of a boss machined in the head, on which the spring pilots. On stock performance engines (302 BOSS, 351C BOSS and HO, 429 CJ/SCJ and BOSS) the head is flat and the spring sits in stamped spring seat.

Ford Racing offers spring seats for use with Ford Racing aluminum cylinder heads to prevent damage to the spring seat area.





This is a conventional rocker arm with close-

tolerance slot in head to guide push rods and

maintain rocker arm alignment. Can be used

1963-661/2 standard 289

with mechanical or hydraulic camshafts.

USAGE: All 289 high-performance and

**ROCKER ARMS AND STUDS** 

429 BOSS, FE engines and some 4-cylinder

rocker arms are shaft-mounted, while others are individually mounted (in several ways), as

is used in production engines with hydraulic

cams. Mechanical camshafts require rocker

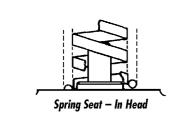
shown in the illustration. A non-adjustable stud

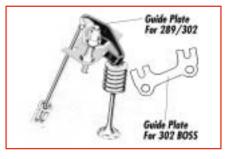
arm adjustment to set valve lash (hydraulic cams

with anti pump-up lifters also require adjustment).

Shown here is a "rail" rocker arm with "loose-fit" hole in cylinder head for push rods. The U-shaped rocker arms maintain alignment. Can only be used with hydraulic camshafts.

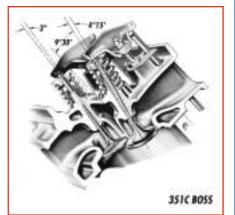
USAGE: 19661/2-1968 standard 289 1968-76 302 and 351W

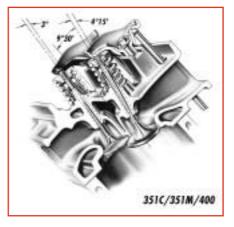




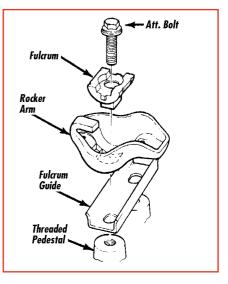
Here is a modified valve train to convert rail rocker arm design for mechanical cam. Requires conventional rocker arms, guide plates, hardened pushrods (they rub on plates) and threaded adjustable rocker studs. Requires different guide plate than the one used with a similar 302 BOSS setup.

USAGE: 289/302/351W with mechanical camshaft.





The illustration above is typical of 351C-351M-400 canted valve engines (429-460 engines are similar). The rocker arm is mounted on a slotted pedestal, moves on a "sled" fulcrum, and is retained by a bolt. 351C BOSS engines use the 302 BOSS type valve train (also used on 429 CJ/SCJ), 1968-72 429/460 with hydraulic camshafts use a screw-in positive stop stud. 1973 and later 429/460 have the 351C-type slotted pedestal.



A modified pedestal is used on 1978 and later 302/351W engines. A stamped fulcrum guide is used with each pair of rocker arms.

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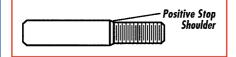
# ENGINE BUILDING TIPS AND SPECS

#### **ROCKER STUD COMPARISON**



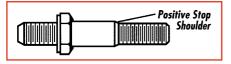
Press-in stud with adjustable rocker nut. NOT recommended with mechanical camshafts.

USAGE: Standard 289 and 1968 302



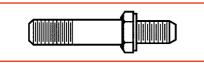
Press-in positive stop stud. Cannot be adjusted to set lash with mechanical camshaft.

USAGE: 1969-76 302/351W



Screw-in, positive stop stud.

USAGE: 1968-72 429 with hydraulic camshaft



Screw-in, adjustable stud. Required for mechanical camshaft (and hydraulic with anti-pump-up lifters).

USAGE: 289 Hi-Performance, 302 BOSS, 351C BOSS and HO and 429 CJ/SCJ

### CYLINDER HEAD WATER PASSAGE MODIFICATION

As described on this page cylinder heads for 351C/351M/400 engines have a water outlet passage in the combustion face, whereas 289/302/351W heads have a water outlet passage in the intake manifold face of the head. Heads can be interchanged, if provision is made for appropriate water passages.

#### TO INSTALL CLEVELAND-TYPE HEADS (351C/351M/400) ON A WINDSOR TYPE BLOCK (289/302/302 BOSS/351W)

- 1. Drill a 0.800" diameter hole in the intake manifold face of the head as illustrated.
- 2. Plug square hole in cylinder head. Install heads with Cleveland-type head gasket.
- 3. Use intake manifold gasket to match intake manifold.
- **NOTE:** If BOSS type heads (302 or 351C) are used in either procedure, remember they have larger rounded ports than conventional heads; thus a unique BOSS type intake manifold gasket is required.

#### ...AND IF YOU HAVE 302/351 FORD RACING ALUMINUM HEADS ①

These heads come with a tapped .75" pipe thread hole in the combustion face, but no hole in the intake manifold face.

If your application requires external water outlets, see diagram below.

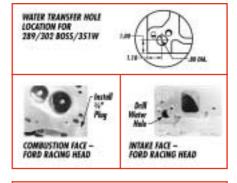
#### TO INSTALL ON WINDSOR TYPE BLOCK (289/302/302 BOSS/351W)

- 1. Install pipe plug in hole. Finish so it doesn't protrude above head face.
- 2. Drill a 0.800" diameter hole in the intake face as shown or use the .75" pipe thread external water outlet valve provided in the front and rear ends of Ford Racing heads produced after July, 1984.

#### TO INSTALL ON CLEVELAND TYPE BLOCK (351C/351M/400)

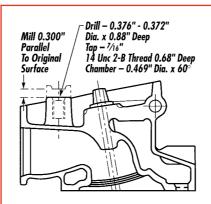
1. Requires no special head work.

NOTE: ① Heads produced after 6/1/85 do not have .75" pipe threads at front and rear of head face and must be drilled and tapped as shown in illustration.



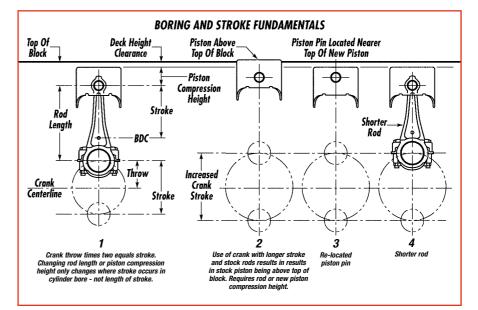


### HEAD MODIFICATION FOR MECHANICAL CAM



Pedestal type cylinder heads for hydraulic cams can be modified to accept a mechanical cam (351C/351M/400 shown). Machine at right angles to the existing hole—not the bottom of the head. The valves operate at compound angles. With 302/351W type pedestals, measure from the top of the pedestal.

All 302/351W	.230"
All 351C/351M/400	.300"
1973-95 429/460	.300"
1968-72 429/460	.230"



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- EB = ENGINE BUILDER
- IN = INSTALLATION
- WH = WHOLESALE

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DALLAS MUSTANG PARTS DALLAS, TX 75238 800-MUSTANG LS, MO, EB, IN, WH

LATEMODEL RESTORATION SUPPLY INC. HEWITT, TX 76643 254-296-6500 LS, MO, WH

LEIF JOHNSON FORD AUSTIN, TX 78751 800-274-3673 LS, MO, IN, WH

LONE STAR PERFORMANCE GARLAND, TX 75042 972-205-9100 LS, MO, EB, IN, WH

NORTH PARK LINCOLN-MERCURY SAN ANTONIO, TX 78216 210-341-8841

NORTHSIDE FORD SAN ANTONIO, TX 78216 800-542-9912 LS, IN, WH

SCOGGIN-DICKEY PARTS CENTER LUBBOCK, TX 79424 800-456-0211 LS, MO, EB, WH

**SOUTHWEST FORD, INC.** WEATHERFORD, TX 76086 800-256-7933 **LS, MO, WH** 

**TEXAS MUSTANG PARTS** WACO, TX 76706 800-527-1588 **LS, MO** 

**TOMMIE VAUGHN MOTORS** HOUSTON, TX 77007 713-869-4755 **LS, MO, WH** 

TOWN EAST MESQUITE, TX 75150 972-682-1285 LS, WH

#### UTAH

CHAPMAN CYLINDER HEADS WOODS CROSS, UT 84087 801-292-3909

SIX STATES DISTRIBUTORS SALT LAKE CITY, UT 84115 801-488-4666 WH

#### VIRGINIA

**B & W MACHINE & TOOL** SALEM, VA 24153 540-387-3854 LS, MO, EB

L3, MO, ED

COWLES FORD WOODBRIDGE, VA 22193 800-730-8417 LS, IN, WH

#### KIMNACH FORD

NORFOLK, VA 23502 800-542-3512 LS, MO, WH

**KOONS STERLING FORD** STERLING, VA 20164 800-966-7078 **LS, MO, IN, WH** 

POMOCO LINCOLN-MERCURY OF NEWPORT NEWS NEWPORT NEWS, VA 23602 888-833-4949 LS, WH

PURVIS FORD, INC. FREDERICKSBURG, VA 22408 540-898-3000 LS, WH

#### WASHINGTON

**DREW MARINE** SPOKANE, WA 99203 509-535-3393

FORD POWERTRAIN APPLICATIONS PUYALLUP, WA 98371 253-848-9503 LS, MO, EB

RANDY'S RING & PINION EVERETT, WA 98204 800-347-1188 LS, MO, IN, WH

### WISCONSIN

**BELL FORD** ARLINGTON, WI 53911 800-236-4384 **LS, MO, WH** 

GORDIE BOUCHER FORD MENOMONEE FALLS, WI 53051 262-250-9838 LS, MO, IN, WH

**PERFORMANCE PLUS, INC.** MADISON, WI 53719 608-277-8161 L**S, IN** 

### CANADA

#### **Central Region**

CAMPBELL FORD SALES, LTD. OTTAWA, ONTA K1Y 4K6 613-725-3611 LS, MO, IN, WH

DIXIE FORD SALES MISSISSAUGA, ONTA L4W 1E6 905-629-1711 LS, IN, WH

KARBELT SPEED & CUSTOM AJAX, ONTA L1S 4N8 905-619-6660

R.C.O. ENTERPRISES INC AYLMER, ONTA N5H 2S1 519-393-6665 MO, WH

SEAN HYLAND MOTORSPORT WOODSTOCK, ONTA N4V 1B7 519-421-2291 LS, MO, EB, IN

**SUMMIT FORD SALES LTD.** REXDALE, ONTA M9V 2C1 416-741-5581 **LS, IN, WH** 

#### Eastern Region

DESJARDINS AUTO COLLECTION VANIER, QUEB G1M 3C8 418-683-4435 LS

FORMULE FORD MERCURY,INC GRANBY, QUEB J2G 8C8 450-777-1777 LS, IN, WH

#### **Pacific Region**

BROWN BROS FORD SALES VANCOUVER, BRIT V5X 2S6 604-324-7504 LS, IN, WH

MOPAC AUTO SUPPLY LTD. LANGLEY, BRIT V2Y 3C2 604-881-4900 LS, MO, EB, IN, WH

#### Western Region

METRO FORD SALES, LTD. CALGARY, ALBE T2P 3K9 403-263-6670

MGM FORD-LINCOLN SALES LTD. RED DEER, ALBE T4R 1M5 403-346-6621 LS, MO, EB, IN, WH

#### AUSTRALIA

EAGLE AUTO SPARES DANDENONG, VICT 3175 613-8710-3000

METRO FORD PARTS DISTRIBUTION CENTRE BRISBANE, QLD 4009 61-7-30007166 LS, MO, WH

**RACEPARTS AUSTRALIA PTY LTD.** STAPYLTON, QLD 4207 011-61-7-3807-6870 **LS, MO, WH** 

#### NEW ZEALAND

STA PARTS (SEGEDIN TRUCK & AUTO PARTS LTD) AIRPORT OAKS, AUCK 011-649-256-1120 LS. MO. WH

#### EUROPEAN COUNTRIES

POWER TORQUE ENGINEERING LTD BINLEY, COVENTRY, AL CV3 2RQ 0046 02476 635757 MO, WH

**REAL STEEL** COWLEY, MIDD UB8 2JP 44-1895-440505 **LS, MO, EB, WH** 

US-PARTS/FINN-AM OY HELSINKI, SF00810, AL 810 358-9-251-31999



### EFFECTIVE JANUARY 1, 2006 (PRICES IN U.S. DOLLARS)

### PARTS SECTION

All prices and specifications are subject to change without notice. Code: ◆ Check our website at www.fordracingparts.com

Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-0750-A2006 CM-1828-FCM CM-1828-FRCM CM-19546-A1	2006 CATALOG (1) LIC PLATE-FORD OVAL-SINGLE LIC PLATE-FORD RACE-SINGLE FRICTION MODIFIER-SELLING INFO	161 161 140	\$5.00 \$4.50 \$4.95 \$3.75	M-1007-U1885P M-1007-U188A M-1007-U188B M-1007-U188C	18" X 8.5" POLISHED MUSTANG GT WHEEL FORGED F250/350 4X2 TRUCK WHEEL FORGED F250/350 4X4 TRUCK FR WHEEL FORGED F250/350 4X4 TRUCK REAR WHEEL	21 29 29 29	\$219.00 \$439.00 \$449.00 \$449.00
CM-19579-A1 M-1007-A179 M-1007-A179M M-1007-A208 M-1007-B178	CAM LUBE-SELLING INFO ANNIVERSARY COBRA WHEEL FORD RACING COBRA WHEEL F250 HARLEY-DAVIDSON WHEEL 17" X 8" 2001 MUSTANG WHEEL	84 23 23 29 24	\$9.00 \$195.00 \$195.00 \$475.00 \$195.00	M-1010-L M-1012-A M-1012-C M-1012-E M-1012-F	STEERING STOP LIGHTNING WHEEL NUT (5 PACK) WHEEL NUT (5 PACK) WHEEL NUT 14MM (5 PACK) RANGER ALUM WHEEL LUG NUTS	28 32 32 32 32 32	\$33.00 \$7.95 \$25.95 \$13.95 \$7.00
M-1007-B178C M-1007-C178 M-1007-C58 M-1007-D178	17" X 8" 2001 MUSTANG CHROME 1996 COBRA CHROME WHEEL CHROME WHEEL 1995 COBRA R 1998 COBRA WHEEL	24 23 23 24	\$299.00 \$250.00 \$295.00 \$155.00	M-1012-K M-1012-RS M-1012-T	WHEEL NUT/LOCK KIT RS LUG NUT (4 PACK) TUNER WHEEL NUT CAR SET 2005 MUSTANG BAR & PONY CAP	26 32 31 33	\$44.95 \$9.99 \$105.00 \$28.00
M-1007-F178 M-1007-F1810 M-1007-F500	1999 COBRA WHEEL MUSTANG GT-R WHEEL FORD RACING WHEEL	22 11 26	\$150.00 \$1,219.00 \$250.00	M-1096-A M-1096-B M-1096-C M-1096-CA	2005 MUSTANG BAR & PONY SPINNER CENTER CAP CENTER CAP	33 33 33	\$29.00 \$28.00 \$28.00
M-1007-F500B M-1007-F500C M-1007-G178 M-1007-GTF	BLACK FR500 WHEEL CHROME FORD RACING WHEEL 1999 COBRA WHEEL POLISHED GT FRONT WHEEL	26 26 22 8	\$255.00 \$375.00 \$220.00 \$940.00	M-1096-D M-1096-E M-1096-FR M-1096-G	CENTER CAP CENTER CAP CENTER CAP CENTER CAP	33 33 33 33	\$40.00 \$35.00 \$28.00 \$28.00
M-1007-GTR M-1007-H188 M-1007-H209 M-1007-H209A	GT REAR WHEEL F250 HARLEY-DAVIDSON WHEEL FRPP HARLEY WHEEL F150 HARLEY WHEEL	8 29 29 29	\$999.00 \$455.00 \$339.00 \$575.00	M-1096-H M-1096-J M-1096-K M-1096-M	CENTER CAP CENTER CAP CENTER CAP CENTER CAP	33 33 33 33 33	\$40.00 \$34.00 \$28.00 \$34.00
M-1007-J178 M-1007-K178 M-1007-L189 M-1007-L2010	2003 MUSTANG WHEEL 2001 BLACK MUSTANG WHEEL LIGHTNING WHEEL 12MM 2004-05 LIGHTNING WHEEL	24 24 28 28	\$145.00 \$165.00 \$113.00 \$340.00	M-1096-N M-1096-T M-1096-U M-1096-V	CENTER CAP CENTER CAP HARLEY CAP 1 HARLEY CAP 2	33 33 32 32	\$28.00 \$22.00 \$35.50 \$35.50
M-1007-M167 M-1007-M178 M-1007-M178C M-1007-M188P	CHROME PONY WHEEL 17" X 8" MAGNUM 500 WHEEL CHROME MAGNUM WHEEL MARAUDER FRONT WHEEL	25 22 22 27	\$285.00 \$155.00 \$295.00 \$399.00	M-1097-A M-1102-C M-1109-A M-1125-A	RALLY WHEEL ART (4 PACK) BRAKE ROTOR KIT Cobra IRS HUB 1994-01 MUST FRONT ROTOR (PR)	27 149 143 149	\$2.99 \$195.00 \$49.00 \$169.00
M-1007-M189C M-1007-N167 M-1007-N189C M-1007-P34	LIGHTNING WHEEL 14MM CHROME PAINTED PONY WHEEL LIGHTNING WHEEL 12MM CHROME 10-SPOKE TUNER WHEEL	28 25 28 31	\$227.00 \$150.00 \$224.00 \$140.00	M-1125-C M-1126-A M-1126-B M-1126-D	COBRA FRONT ROTORS (PR) REAR DRUM KIT-28T 11" X 2.25" BRAKE DRUM REAR BRAKE DRUM	149 151 151 151	\$225.00 \$415.00 \$49.95 \$39.95
M-1007-P43 M-1007-P45 M-1007-Q189 M-1007-Q189C	5-SPOKE TUNER WHEEL 16-SPOKE TUNER WHEEL 2003 LIGHTNING WHEEL 2003 CHROME LIGHTNING WHEEL	31 31 28 28	\$140.00 \$140.00 \$199.00 \$375.00	M-1197-T4543 M-1215-A M-1225-B M-1447-B	4WD LOCKNUT SOCKET SET KIT CAR IRS BEARING 8.8" AXLE BEARING & SEAL KIT (PR) BULLITT DECKLID EMBLEM	166 143 139 161	\$94.95 \$37.00 \$25.00 \$18.95
M-1007-R157A M-1007-R189 M-1007-R189C M-1007-R50	RANGER FORGED ALUM WHEEL 2000 COBRA R WHEEL 2000 COBRA R WHEEL 1995 COBRA R WHEEL	27 25 25 23	\$275.00 \$225.00 \$345.00 \$175.00	M-1447-D46 M-1447-F46 M-1447-M1 M-1447-SR	COBRA DECAL COBRA INTAKE PLAQUE MACH 1 DECKLID EMBLEM COBRA SNAKE FENDER EMBLEMS	161 161 161 161	\$6.95 \$9.95 \$18.95 \$13.95
M-1007-R54 M-1007-R54C M-1007-R58 M-1007-R58	4-LUG 1995 COBRA R WHEEL CHROME 4-LUG 1995 COBRA R 1995 COBRA R WHEEL FOCUS RS WHEEL	25 25 23 30	\$175.00 \$295.00 \$175.00 \$210.00	M-1447-SVT M-1820-A2 M-1820-A3 M-1820-B1	SVT DECKLID EMBLEM FORD RACING DECAL (10 PKG) FORD RACING DECAL (10 PKG) FORD COMBO MINI DECAL (25 PKG)	161 164 164 164	\$10.95 \$12.95 \$21.95 \$19.95
M-1007-S177 M-1007-S177A M-1007-S177B	SVT FOCUS WHEEL 2004 SVT FOCUS WHEEL RALLY WHEEL BLACK	31 30 30	\$130.00 \$120.00 \$160.00	M-1820-F2B M-1820-F2W M-1820-F5 M-1820-F5B	FOCUS FLARE DECALS (PR) FOCUS FLARE DECALS (PR) FOCUS DOOR DECALS (PR) FOCUS DOOR DECAL BLACK (PR)	187 187 187 187 187	\$49.95 \$49.95 \$79.95 \$79.95
M-1007-S177C M-1007-S177E M-1007-S177G M-1007-S177W	CHROME SVT FOCUS WHEEL EUROPEAN FOCUS SVT WHEEL RALLY WHEEL GOLD RALLY WHEEL WHITE 2001 MUETANC WHEEL POLICHED	31 30 30 30	\$255.00 \$120.00 \$160.00 \$160.00	M-1822-A2 M-1824-A M-1824-B M-1824-C	FORD RACING FENDER COVER MEDIUM MECHANICS GLOVES (PR) LARGE MECHANICS GLOVES (PR) XLARGE MECHANICS GLOVES (PR)	157 165 165 165	\$10.95 \$21.95 \$21.95 \$21.95
M-1007-S178P M-1007-S179 M-1007-S179C M-1007-T177B	2001 MUSTANG WHEEL POLISHED 2003 COBRA WHEEL 2003 CHROME COBRA WHEEL BLACK SVT FOCUS WHEEL BLACK SVT FOCUS WHEEL	24 22 22 31	\$225.00 \$175.00 \$299.00 \$165.00	M-1827-A1 M-1827-P1 M-1828-F M-1828-FR	FORD RACING BANNER 2 X 5 FT RACING PENNANT STRING 50 FT LIC PLATE-FORD OVAL (12 PACK) LIC PLATE-FORD RAC (12 PACK)	164 164 164 164	\$13.95 \$39.95 \$52.50 \$55.00
M-1007-T177W M-1007-T178B M-1007-T178C M-1007-T178P	WHITE SVT FOCUS WHEEL 17" X 8" BLACK MUSTANG GT WHEEL 17" X 8" CHROME MUSTANG GT WHEEL 17" X 8" POLISHED MUSTANG GT WHEEL 17" X 8" SILVER MUSTANG GT WHEEL	31 21 21 21 21	\$165.00 \$158.00 \$335.00 \$210.00	M-1828-GT M-1828-GTC M-1828-GTC M-1832-Z1 M-1832-Z4	LICENSE PLATE FRAME LICENSE PLATE FRAME EFI BOOK 1979-93 MUSTANG 5.0L BOOK	8 8 165 165	\$129.00 \$129.00 \$27.00 \$33.00

Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-1884-A249	TEMP ACTIVATED SWITCH	159	\$13.00	M-3075-D	COBRA FRONT CONTROL ARM SET	144	\$175.00
M-2001-A	COBRA TRACK PAD SET FRONT	149	\$159.00	M-3075-R	GRAND AM FRONT LOWER ARMS	11	\$520.00
M-2001-R	PFC FRONT BRAKE PADS	11	\$355.00	M-3130-H	1979-93 MUSTANG BUMPSTEER KIT	145	\$135.00
M-2001-X	COBRA R FRONT BRAKE PADS	149	\$99.00	M-3130-H1	1994-03 MUSTANG BUMPSTEER KIT	145	\$135.00
M-2005-FR1	S197 MUSTANG POWER PACK	14	\$889.00	M-3130-R	TIE ROD END 2005 RACER	11	\$103.00
M-2005-FR2	S197 MUSTANG DRAG PACK	15	\$1,399.00	M-3130-R00	HD FRONT TIE ROD END	144	\$27.00
M-2005-FR3	2005 HANDLING PACK	14	\$1,149.00	M-3200-R	GRAND AM STEERING RACK	11	\$1,054.03
M-2005-R	RACE BOOSTER	11	\$1,799.00	M-3310-A	CASTER ADJUSTING SLEEVE	146	\$38.00
M-2026-A	1994-01 MUSTANG REAR ROTOR (PR)	149	\$145.00	M-3395-A	05 MUSTANG BALL JOINT	11	\$95.00
M-2026-C	1994-03 COBRA REAR ROTORS (PR)	149	\$190.00	M-3410-L373	8.8" LH RING & PINION	200	\$160.00
M-2162-A301	CHROME MASTER CYLINDER COVER	148	\$10.95	M-3436-F	1996-03 F150 FRONT HALF SHAFTS	203	\$205.00
M-2162-B301	CHROME MASTER CYLINDER COVER	148	\$10.95	M-3600-F	SVT FOCUS STEERING WHEEL	183	\$124.95
M-2200-R	REAR BRAKE PAD KIT	11	\$205.00	M-3600-HD	HD STEERING WHEEL	207	\$115.00
M-2209-B	9" DRUM BRAKE BACK PLATE KIT	151	\$180.00	M-3600-HD3	HD STEERING WHEEL 2003	207	\$129.00
M-2300-A	RACING BRAKE KIT	11	\$3,450.00	M-3601-B	Leather Steering wheel Mustang	160	\$175.00
M-2300-B	RS BREMBO CALIPERS	175	\$735.00	M-3601-R	Fr500c Steering Wheel	11	\$190.00
M-2300-G	DISC BRAKE KIT 9" AXLE	150	\$375.00	M-3601-RS	FOCUS RS STEERING WHEEL	183	\$124.95
M-2300-K	1987-93 SHD DISC BRAKE KIT	150	\$2,199.00	M-3716-G1	OFFSET RACK BUSHINGS	144	\$38.00
M-2300-M	GT REAR BRAKE BRACKET KIT	148	\$189.00	M-4002-A	9" AXLE T-BOLT KIT (100 PKG)	137	\$78.00
M-2300-Q	COBRA BRAKE KIT 1994-95	149	\$540.00	M-4002-B	9" AXLE T-BOLT AND NUT KIT	137	\$12.50
M-2300-R	COBRA BRAKE KIT 1996-98	149	\$475.00	M-4006-B355	8.8" 1979-98 MUSTANG AXLE ASSY	141	\$1,125.00
M-2300-RS	RS/COBRA DISC BRAKE KIT	175	\$2,650.95	M-4006-B373	8.8" 1979-98 MUSTANG AXLE ASSY	141	\$875.00
M-2300-T7299	BRAKE CALIPER PIN TOOL	166	\$21.95	M-4006-T6540	REAR AXLE AND BRG PULLER	166	\$174.95
M-2300-X	COBRA R FRONT BRAKE KIT	149	\$1,150.00	M-4010-A88	8.8" ALUM IRS HOUSING KIT	143	\$535.00
M-2300-ZX3	SVT FOCUS BRAKE KIT	175	\$999.00	M-4010-T7071	DANA HOUSING SPREADER	166	\$449.95
M-2301-A	ACCELERATOR PEDAL PAD	161	\$19.95	M-4033-A301	CHROME DIFF COVER 8.5"-8.8"	139	\$23.95
M-2301-B	BRAKE OR CLUTCH PEDAL PAD (1)	161	\$18.95	M-4033-G1	8.8" AXLE GIRDLE	141	\$195.00
M-2301-C	DEAD PEDAL PAD	161	\$17.95	M-4034-A	BRG CAP STUD KIT 8.8"/DANA 60	141	\$37.95
M-2301-D	AUTOMATIC BRAKE PEDAL PAD	161	\$18.95	M-4035-A	9" CARRIER GASKETS (20 PACK)	138	\$34.65
M-2301-E	Aluminum fuel filler door	161	\$79.95	M-4050-B	8.8" AXLE INSTALL KIT	141	\$12.95
M-2301-F	F150 Accel Pedal Pad	208	\$18.95	M-4067-A	DIFF BRG NUT 2.9687"	137	\$9.95
M-2301-FSVT	SVT Focus Pad Kit	184	\$58.95	M-4067-B	BILLET DIFF BRG NUT 2.9687"	137	\$27.00
M-2301-G	F250 ACCELERATOR PEDAL PAD	208	\$18.95	M-4141-B	Nodular 9" Carrier	136	\$399.00
M-2301-H	F150 BRAKE PEDAL PAD	208	\$18.95	M-4141-C	Nodular 9" Carrier	136	\$499.00
M-2301-J	SS COBRA SC PULLEY COVER	153	\$229.95	M-4141-D	Aluminum 9" Carrier	136	\$499.00
M-2302-FSVT	SVT FOCUS PARK BRAKE LEVER	183	\$26.95	M-4141-E	Nodular 9" Carrier	136	\$399.00
M-2302-RS	FOCUS RS EMER. BRAKE HANDLE	184	\$59.95	M-4141-H	NODULAR 9" CARRIER	136	\$395.00
M-2320-A	Caliper Kit 10th ann F&R	148	\$499.00	M-4141-HS	STEEL CARRIER	136	\$599.00
M-2320-AF	10th ann Front Cobra Cal	148	\$235.00	M-4141-J	NODULAR 9" CARRIER	136	\$499.00
M-2320-C	Cobra Caliper Set	148	\$215.00	M-4141-L	9" NODULAR STREET CARRIER	136	\$189.00
M-2320-CR	REAR COBRA CALIPERS (PR)	148	\$215.00	M-4144-B	NUT LOCK & BOLT KIT	137	\$4.95
M-2320-F	FRONT CALIPERS WITH PADS (PR)	148	\$245.00	M-4204-A28	AUBURN DIFF 8.8" 28T	140	\$485.00
M-2320-R	REAR CALIPERS WITH PADS (PR)	148	\$235.00	M-4204-A31	AUBURN DIFF 8.8" 31T	140	\$485.00
M-2321-A	CALIPER HARDWARE KIT	148	\$12.00	M-4204-C31	DETROIT C-LOCKER 8.8" 31T	11	\$625.00
M-2328-C	ALUM PROPORTIONING VALVE	146	\$49.95	M-4204-C75	TRAK-LOK DIF 7.5" 28T	140	\$220.00
M-2400-C	Severe Duty Brake Kit	149	\$185.00	M-4204-F20	TORSEN DIFF MTX-75	178	\$550.00
M-2450-A	Proportioning Valve Plug	149	\$8.25	M-4204-F288	TRAK-LOK DIF 8.8" 28T	140	\$215.00
M-2588-T7317	Rear Disc Brake Tool	166	\$99.95	M-4204-F28A	9" 28 SPLINE TRAC-LOC AG	140	\$399.00
M-2809-A	PARK BRAKE CABLE (REAR)	149	\$27.95	M-4204-F28S	9" 28 SPLINE TRAC-LOC SM	140	\$399.00
M-2810-A	PARK BRAKE CABLE (FRONT)	149	\$17.95	M-4204-F318	TRAK-LOK DIF 8.8" 31T	140	\$299.00
M-3000-D	DRAG RACE SUSPENSION KIT	145	\$275.00	M-4204-F3180	NON-LOCKING DIFF 8.8" 31T	140	\$189.00
M-3000-E	ESCAPE LOWERING KIT	152	\$210.00	M-4204-F318C	8.8" 31 SPLINE COBRA DIFF	140	\$299.00
M-3000-EN2	NAVIGATOR LOWERING KIT 2WD	152	\$345.00	M-4204-F31A	9" 31 SPLINE TRAC-LOC AG	140	\$399.00
M-3000-F	EXPLORER LOWERING KIT	152	\$195.00	M-4204-F31S	9" 31 SPLINE TRAC-LOC SM	140	\$399.00
M-3000-G	2004 F150 2" DROP KIT	205	\$89.00	M-4204-P31	AUB PRO DIFF 8.8" 31T	140	\$575.00
M-3000-L	LIGHTNING LOWERING KIT	152	\$160.00	M-4204-SVTF	SVT FOCUS TORSEN	178	\$779.00
M-3000-N4	NAVIGATOR LOWERING KIT 4WD	152	\$289.00	M-4204-T28	TORSEN DIFF 8.8" 28T	140	\$485.00
M-3000-T1	F150 Lowering Kit 2WD	152	\$450.00	M-4204-T31	TORSEN DIFF 8.8" 31T	140	\$485.00
M-3000-T3	2004 F150 2WD LOWERING KIT	205	\$688.40	M-4204-TT312	TRUETRAC LSD 10.25"	140	\$585.00
M-3000-Z3	FOCUS SUSPENSION KIT	179	\$1,100.00	M-4209-F308	RING & PINION 8.8"	200	\$199.00
M-3000-ZX3	SVT FOCUS SUSPENSION KIT	179	\$265.95	M-4209-F327	RING & PINION 8.8"	200	\$210.00
M-3000-ZXM	FOCUS HANDLING KIT	180	\$550.00	M-4209-F373N	RING & PINION 8.8"	200	\$192.00
M-3002-F2410	F250/350 FRONT AXLE 4.10	193	\$3,500.00	M-4209-G355M	8.8" 3.55:1 RING & PINION	111	\$189.00
M-3002-F2430	F250/350 FRONT AXLE 4.30	193	\$3,500.00	M-4209-G410A	8.8" 4.10 RING & PINION	142	\$259.00
M-3002-F4430 M-3002-F4488 M-3050-S M-3052-R	F450/550 FRONT AXLE 4.30 F450/550 FRONT AXLE 4.88 EXTENDED BALL JOINT SET GRAND AM CASTER ADJUSTER	193 193 145 11	\$4,500.00 \$4,500.00 \$96.00 \$760.00	M-4209-G430M M-4209-G456 M-4209-G488 M-4209-G513	RING & PINION 8.8" RING & PINION 8.8" RING & PINION 8.8" RING & PINION 8.8"	200 200 200 200 200	\$199.00 \$245.00 \$245.00 \$245.00
M-3070-G1	FRONT CONTROL ARM BUSHINGS	144	\$135.00	M-4209-H373	RING & PINION 9.75"	200	\$170.00
M-3070-G2	FRONT CONTROL ARM BUSHINGS	144	\$169.00	M-4209-L345	RING & PINION 7.5"	200	\$235.00
M-3070-Z2	ZX2R RACE SUSPENSION BUSHING	180	\$25.00	M-4209-L373M	RING & PINION 7.5" 3.73:1	200	\$189.00
M-3075-A	LOWER CONTROL ARMS PAIR	144	\$190.00	M-4209-L410N	RING & PINION 7.5" 4.10	200	\$184.00



Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-4209-N511 M-4209-N514 M-4209-N525 M-4209-N533	RING & PINION 9" RING & PINION 9" RING & PINION 9" RING & PINION 9"	138 138 138 138 138	\$- \$- \$- \$370.00	M-5230-L3 M-5230-M51 M-5230-M52 M-5230-M55	1998-03 F150 LIGHTNING STYL EXHAUST 1986-97 GT/1996-97 COBRA EXHAUST 1998-01 4.6L MUSTANG GT EXHAUST 1999-01 COBRA EXHAUST	196 89 89 89 89	\$559.00 \$275.00 \$285.00 \$325.00
M-4209-N543 M-4209-N550 M-4209-N557 M-4209-N567	RING & PINION 9" RING & PINION 9" RING & PINION 9" RING & PINION 9"	138 138 138 138 138	\$- \$- \$- \$-	M-5230-M58 M-5230-M61 M-5230-MS M-5230-MSC	1999-01 4.6L DOHC COBRA EXHAUST 1998-01 3.8L V6 MUSTANG EXHAUST 1999-03 MUSTANG GT EXHAUST 1999-03 MUSTANG COBRA EXHAUST	89 89 88 88	\$549.00 \$385.00 \$615.00 \$745.00
M-4209-P614 M-4209-P620 M-4209-P633 M-4209-P643	RING & PINION 9" RING & PINION 9" RING & PINION 9" RING & PINION 9"	138 138 138 138 138	\$- \$- \$- \$-	M-5230-SR M-5230-SR1 M-5230-T2 M-5230-T7677	2004 F150 4.6L/5.4L SPLIT REAR EXHAUST 1998-03 F150 SPLIT REAR EXHAUST MEGS EXHAUST TIP EXHAUST HANGER PLIERS	196 196 89 166	\$750.00 \$750.00 \$27.95 \$59.95
M-4209-T7794 M-4210-A M-4210-B M-4210-C	PINION & DIFF BRG PULLER 8.8" R&P INSTALL KIT 8.8" R&P INSTALL KIT 8.8" R&P INSTALL KIT	166 139 139 139	\$999.95 \$40.00 \$90.00 \$120.00	M-5230-Z2 M-5300-B M-5300-C M-5300-F	MUFFLER 2.0L ZX2 Spring Kit Spring Kit Spring Kit	177 145 145 145 145	\$225.00 \$155.00 \$155.00 \$239.00
M-4211-A M-4211-B M-4213-A M-4216-A100	8.8" REUSABE CASE GASKET 9" REUSABLE CASE GASKET PINION NUTS (100 PACK) SHOULDER BOLT (10 PACK)	139 138 138 137	\$9.00 \$9.00 \$120.00 \$15.25	M-5300-G M-5300-J M-5300-K M-5310-R58	SPRING KIT Spring Kit 2005 Mustang Spring Kit Springs Front 1995 Cobra R	145 145 14 156	\$265.00 \$225.00
M-4216-A200 M-4216-A210 M-4216-A300 M-4216-B	RING GEAR BOLTS (100 PACK) MANUAL FLYWHEEL BOLT (10 PACK) 8.8" RING GEAR BOLT SET OF TEN 8" & 9" FORD POSI BOLT KIT	137 137 139 137	\$78.95 \$13.95 \$8.95 \$18.00	M-5350-Z3 M-5400-A M-5400-L M-5400-Z3	FOCUS LOWERING SPRING KIT PERF HANDLING PACKAGE SVT LIGHTNING REAR SWAY BAR FOCUS ANTI-ROLL BAR KIT	179 143 203 179	\$199.95 \$495.00 \$140.00 \$325.95
M-4220-A M-4235-B M-4235-D M-4235-E	C-CLIP ELIMINATOR KIT 8.8" Axle Shaft 8.8" 31t 4-lug 1994-98 Mustang Rear Axleshaft 1999-up Mustang Rear Axleshaft	141 151 151 151	\$179.95 \$129.95 \$245.95 \$245.95	M-5478-B M-5478-C M-5478-C2 M-5478-D	SUB-FRAME CONN 1979-93 DRIVESHAFT LOOP DRIVESHAFT LOOP 3.5" SUB-FRAME CONN 1994-96	147 143 143 147	\$109.95 \$39.00 \$42.00 \$105.00
M-4235-F M-4330-B M-4413-A M-4602-G	1979-93 MUSTANG REAR AXLESHAFT AXLE CENTER SECTION HSG 8.8" IRS BEARING, SEAL KIT ALUM DRIVESHAFT ASSY	151 138 139 143	\$239.95 \$139.95 \$21.95 \$280.00	M-5478-J M-5478-S197 M-5480-A M-5490-A	HD SUB-FRAME CONN 1986-93 TWO PC DRIVESHAFT LOOP KIT SUBFRAME CROSS BRACE KIT 2005 MUSTANG ANTI-ROLL BARS	147 12 147 14	\$110.00 \$115.00 \$31.00 \$389.00
M-4602-J M-4602-R M-4614-A M-4614-B	ALUM D/S ASSY 1996-97 MUST 4.6L M/T 2003-04 RANGER ALUM REAR DRIVESHFT PINION BEARING RET PINION BEARING RET	143 200 138 138	\$289.00 \$235.00 \$120.00 \$105.00	M-5494-F M-5500-A M-5560-R00 M-5560-R58	1999-04 F150 LIGHTNING FRT STAB KIT Control Arm Kit Springs Rear 2000 Cobra R Springs Rear 1995 Cobra R	203 144 145 156	\$147.00 \$79.00 \$139.00 \$130.00
M-4614-BR M-4635-A M-4662-A M-4663-A	NASCAR BEARING SUPPORT U-JOINT KIT 8.8" SOLID PINION SPACER 8.8" HD PINION SHIM KIT	138 138 139 139	\$135.00 \$19.95 \$9.95 \$9.95	M-5560-Z2 M-5627-Z2 M-5638-R M-5639-R	ZX2-R SPRING SET ZX2-R SWAY BAR BUSHING KIT BUSHING UPPER REAR ARM BUSHING PANHARD ROD	179 180 17 17	\$210.00 \$26.95 \$109.00 \$259.00
M-4663-A100 M-4663-A201 M-4676-A111 M-4700-A	SMALL PARTS KIT 9" Shim Kit Pinion Oil Seal Trak-lok Kit	137 137 138 138	\$28.95 \$11.95 \$14.95 \$57.95	M-5649-H M-5649-H1 M-5649-R M-5848-R00	1979-98 MUSTANG LOWER RR ARMS 1999-04 MUSTANG LOWER RR ARMS FR500C LOWER ARMS HD REAR TIE ROD END	143 143 17 144	\$295.00 \$671.00
M-4700-B M-4841-A M-4841-B M-4851-A	8.8" TRACTION LOK KIT 31 Spline Slip Yoke 28 Spline Slip Yoke Companion Flange	141 128 128 138	\$45.95 \$75.00 \$55.00 \$74.95	M-5970-A M-6000-A302R M-6000-C302 M-6000-D302	KIT CAR KNUCKLE 302 ENGINE DRESS UP KIT VALVE COVERS COBRA KIT VALVE COVERS COBRA EFI	143 119 118 118	\$112.00 \$165.00
M-4851-B M-5030-F M-5035-ZX3 M-5059-A	2003-04 COBRA PINION FLANGE CROSSMEMBER MOTORSPORT SUBFRAME ZX3 TRANS CROSSMEMBER	141 147 180 127	\$25.00 \$69.95 \$230.00 \$67.95	M-6000-E302 M-6000-F302 M-6000-J302R M-6000-K302R	VALVE COVERS MUST EFI VALVE COVERS VALVE COVERS BLACK RACING EFI VALVE COVERS POL RACING EFI	118 118 118 118 118	\$175.00 \$165.00
M-5059-B M-5200-D23 M-5200-D234 M-5200-D23C	T56 COBRA CROSSMEMBER BORLA 2.3L FOCUS EX BORLA 2.3L FOCUS EX ZX4 BORLA 2.3L FOCUS CTR EX	127 177 177 177 177	\$41.00 \$469.00 \$469.00 \$479.00	M-6001-T1726 M-6001-T2004 M-6002-A50 M-6003-A429	1000 LB ENGINE STAND ENGINE HOIST 4000 LB GT40 MANIFOLD BOLT KIT ENGINE GASKET SET	167 167 105 102	
M-5200-ML M-5200-MM M-5200-ZX3 M-5200-ZX4	1999-03 GT SIDE EXHAUST KIT 1999-03 3.8" SIDE EXHAUST BORLA 2.0L FOCUS EX ZX3&5 BORLA 2.0L SVT FOCUS EX	88 88 177 177	\$799.00 \$799.00 \$385.00 \$445.00	M-6003-A50 M-6007-C347 M-6007-C392 M-6007-J58	ENGINE GASKET SET 347 ENGINE ASSEMBLY ENGINE ASSEMBLY 5.8L ENGINE	102 52 18 53	\$95.00 \$6,995.00 \$7,900.00 \$2,600.00
M-5200-ZXC M-5230-5GT M-5230-5GTQ M-5230-5V6	BORLA 2.0L FOCUS CENTER EXIT 2005 MUST GT AXLE-BACK MUFFLER SET 2005 MUST GT AXLE-BACK MUFFLER SET 2005 MUST V6 AXLE-BACK MUFFLER	177 88 88 88 88	\$479.00 \$440.00 \$440.00 \$230.00	M-6007-M146 M-6007-R50 M-6007-R50P M-6007-S58	2003 MACH 1 4.6L ENGINE GRAND AM RACE ENGINE COMPETITION ENGINE PACKAGE 5.8L STREET ROD ENGINE	41 10 11 53	\$5,700.00 \$16,400.00 \$22,500.00 \$2,895.00
M-5230-6L M-5230-73L M-5230-BP2 M-5230-GT	2003-05 F250/350 6.0L DIESEL EXHAUST 1998-04 F250/F350 7.3L DIESEL EXHAUST BY-PASS MUFFLER SET MUFFLER	196 196 89 9	\$810.00 \$810.00 \$375.00 \$2,700.00	M-6007-T50EA M-6007-USAC M-6007-XB3M M-6007-XE3M	5.0L DOHC ENGINE EFI-A/C CAMMER FOCUS MIDGET 2.0L ENGINE 5.0L LONG BLOCK 5.0L LONG BLOCK	41 189 50 19	\$14,995.00 \$8,995.00 \$3,850.00 \$3,850.00
M-5230-GTA M-5230-HDSR M-5230-L M-5230-L2	2005 MUST GT AXLE-BACK MUFFLER SET 2001-03 F150 HD SPLIT REAR EXHAUST 2004 F150 LIGHTNING STYLE EXHAUST 1999-04 F150 LIGHTNING	14 196 196 196	\$325.00 \$915.00 \$577.00 \$625.00	M-6007-Z50E M-6007-Z50Z M-6009-C347 M-6009-C392	ENGINE ASSEMBLY 5.0L HIGH PERF LONG BLOCK SHORT BLOCK ASSEMBLY SHORT BLOCK ASSEMBLY	51 51 62 63	\$5,495.00 \$5,895.00 \$3,095.00 \$3,650.00

Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-6009-D514	ENGINE SHORT BLOCK ASSY	63	\$3,495.00	M-6051-B51	HEAD GASKET SET FOR 5.0L	104	\$48.95
M-6009-E460	ENGINE SHORT BLOCK ASSY	63	\$2,095.00	M-6051-CP331	HEAD GASKET SET	104	\$74.95
M-6009-Z58	ENGINE SHORT BLOCK	62	\$3,795.00	M-6051-R351	HEAD GASKET SET	104	\$70.95
M-6010-A46	ALUMINUM 4.6L 4V BLOCK	43	\$1,350.00	M-6052-B	RADIATOR HOSE KIT	157	\$105.95
M-6010-A460	460 CYLINDER BLOCK	67	\$2,095.00	M-6055-B	CYLINDER SLEEVE	43	\$49.00
M-6010-A500	500 CYLINDER BLOCK	67	\$5,950.00	M-6059-C450	TIMING CHAIN FRONT COVER	65	\$-
M-6010-B50	5.0L SPORTSMAN BLOCK	66	\$1,050.00	M-6059-D351	FRONT COVER	94	\$125.95
M-6010-B58	351W SPORTSMAN BLOCK	66	\$1,295.00	M-6065-B58	HEAD BOLT KIT	105	\$34.95
M-6010-C450	ALUM V8 SUPER BLOCK	65	\$3,500.00	M-6065-C351	HEAD BOLT KIT	105	\$34.95
M-6010-D46	4.6L SOHC BLOCK	43	\$325.00	M-6065-D289	HEAD BOLT KIT	105	\$79.95
M-6010-GT	CYLINDER BLOCK	43	\$2,795.00	M-6066-A50	SUPERCHARGER KIT	116	\$1,750.00
M-6010-M351	9.2" 351 CYLINDER BLOCK	67	\$1,795.00	M-6066-A51	SUPERCHARGER KIT	116	\$1,750.00
M-6010-M54	5.4L CYLINDER BLOCK	43	\$499.00	M-6066-B50	SUPERCHARGER KIT	116	\$2,200.00
M-6010-N351	9.5" 351 CYLINDER BLOCK	67	\$1,795.00	M-6066-CT46	SUPERCHARGER KIT	42	\$3,400.00
M-6010-R302	302 CYLINDER BLOCK 8.2" DECK	64	\$1,895.00	M-6066-CT46HP	COBRA REPLACEMENT S/C	42	\$3,400.00
M-6010-R451	NASCAR BLOCK	66	\$2,395.00	M-6066-CT46P	SUPERCHARGER KIT POLISHED	153	\$4,000.00
M-6010-R452	NASCAR BLOCK	66	\$2,750.00	M-6066-CT46PHP	COBRA REPLACEMENT S/C	42	\$4,000.00
M-6010-R453	4.060" BORE DIA LIMITED NASCAR BLK	66	\$1,595.00	M-6066-E50	5.0L SUPERCHARGER 1996-97 EXPLORER	194	\$2,695.00
M-6010-S302	302 CYLINDER BLOCK 8.7" DECK	64	\$1,895.00	M-6066-E51	5.0L SUPERCHARGER KIT 1998 EXPLORER	194	\$2,695.00
M-6010-T50	FR500 5.0L BLOCK	43	\$3,100.00	M-6066-E52	5.0L SUPERCHARGER KIT 1999 EXPLORER	194	\$2,695.00
M-6010-V351	CYLINDER BLOCK	66	\$1,895.00	M-6066-F1542P	F150 5.4L 2V CHROME	194	\$6,095.00
M-6010-W351	CYLINDER BLOCK	66	\$1,895.00	M-6066-M462	1996-98 SUPERCHARGER BASE KIT	45	\$2,450.00
M-6010-W46	4.6L SOHC WINDSOR BLOCK	43	\$325.95	M-6066-M463	1999-00 SUPERCHARGER BASE KIT	45	\$2,450.00
M-6012-A351	SLEEVE-CYLINDER	105	\$95.00	M-6066-T51	SUPERCHARGER KIT	194	\$2,049.00
M-6012-B351	SLEEVE-CYLINDER	105	\$95.00	M-6066-ZX3BB	JRSC W/ BIG BOOST KIT	176	\$2,995.00
M-6013-B347	CRANK KIT	76	\$1,195.95	M-6067-A	4.6L WIRE COVER SET	47	\$239.95
M-6013-C347	CRANK KIT	76	\$1,795.95	M-6067-B	4.6L BILLET WIRE COVER (PR)	47	\$219.00
M-6013-C392	CRANK KIT	76	\$1,650.95	M-6067-D46	HEAD CHANGING KIT	45	\$115.95
M-6013-C514	CRANK KIT	76	\$2,975.95	M-6067-GT	FORD GT COIL COVER SET	47	\$109.95
M-6014-G500	CYLINDER HEAD STUD KIT	105	\$275.00	M-6067-T46	HEAD CHANGING KIT	45	\$115.95
M-6014-Z304	CYLINDER HEAD STUD KIT	105	\$179.95	M-6067-T50	HEAD CHANGING KIT	45	\$225.00
M-6015-T4554	TORQUE ANGLE GAUGE	167	\$12.95	M-6090-ZX3	ZETEC VALVE TRAIN KIT	174	\$140.00
M-6015-T50	MOD BLOCK SPREADER TOOL	43	\$39.95	M-6099-GT	LH CYLINDER HEAD ASSY	44	\$1,500.00
M-6023-B351	Billet Timing Pointer	80	\$69.95	M-6102-B200	2.0L PISTON AND PIN	86	\$499.95
M-6023-C351	Billet Timing Pointer	80	\$69.95	M-6108-C347	PISTON AND PIN SET	77	\$435.95
M-6026-A302	Plug & Dowel Kit	105	\$7.95	M-6108-C392	PISTON AND PIN SET	77	\$460.95
M-6026-A460	PLUG & DOWEL KIT	105	\$14.95	M-6108-C514	PISTON AND PIN SET	77	\$599.95
M-6026-A58	PLUG & DOWEL KIT	105	\$13.95	M-6108-Z351	PISTON AND PIN SET	77	\$485.95
M-6026-B302	PLUG & DOWEL KIT	105	\$8.95	M-6200-A75	CONNECTING ROD SET	77	\$179.95
M-6026-R351	PLUG & DOWEL KIT	105	\$12.95	M-6200-C200	CONNECTING ROD SET	86	\$825.00
M-6026-R451 M-6026-R452 M-6026-S351 M-6038-A460	O-RING & DOWEL KIT REPLACEMENT PLUG KIT PLUG KIT-REAR CAM FOX 460 ENGINE MOUNTS	105 105 105 147	\$12.95 \$26.95 \$7.00 \$174.95	M-6200-C514 M-6200-D351 M-6200-D50 M-6200-M50	CONNECTING ROD SET CONNECTING ROD SET CONNECTING ROD SET CONNECTING ROD SET	77 77 77 77 77	\$675.95 \$345.95 \$310.95 \$179.95
M-6038-R	GRANDAM ENGINE MOUNTS	11	\$645.00	M-6250-A200	CAMSHAFT	86	\$130.95
M-6049-C460	Cylinder Head	72	\$895.00	M-6250-A234	CAMSHAFT	82	\$105.95
M-6049-D3	High Port Cyl Head W Seat/Gd	71	\$1,195.00	M-6250-A237	CAMSHAFT	82	\$275.95
M-6049-D35	Nascar Cylinder Head	71	\$1,195.00	M-6250-A311	CAMSHAFT	84	\$70.95
M-6049-D46	CYLINDER HEAD ASSY	44	\$949.95	M-6250-A312	CAMSHAFT	84	\$64.95
M-6049-E460	CYLINDER HEAD	72	\$1,695.00	M-6250-A332	CAMSHAFT	84	\$70.95
M-6049-GT	CYLINDER HEAD ASSY	44	\$1,500.00	M-6250-A351	CAMSHAFT	84	\$70.95
M-6049-N351	CYLINDER HEAD	70	\$375.00	M-6250-A443	CAMSHAFT	83	\$81.95
M-6049-N352	Cylinder Head	70	\$375.00	M-6250-A460	CAMSHAFT	83	\$81.95
M-6049-P46	4.6L Pi Cylinder Head	44	\$395.00	M-6250-A514	Camshaft	83	\$635.95
M-6049-SC1	High Port Head	71	\$1,195.00	M-6250-B303	Hyd Roller Camshaft	83	\$225.00
M-6049-SCJ	Cylinder Head	73	\$850.00	M-6250-C460	Camshaft	83	\$124.95
M-6049-SCJA	CYLINDER HEAD	73	\$1,050.00	M-6250-E303	HYD ROLLER CAMSHAFT	83	\$225.00
M-6049-SCJB	CYLINDER HEAD	73	\$1,050.00	M-6250-F303	HYD ROLLER CAMSHAFT	83	\$259.00
M-6049-T46	HIGH FLOW 4V HEAD RH	44	\$795.00	M-6250-X303	HYD ROLLER CAMSHAFT	83	\$189.95
M-6049-X303	CYLINDER HEAD ASSY (64CC)	69	\$625.00	M-6250-Z303	HYD ROLLER CAMSHAFT	83	\$229.95
M-6049-X305	CYLINDER HEAD ASSY (58CC)	69	\$625.00	M-6252-A201	2.0L FOCUS CAM KIT	173	\$245.00
M-6049-Y303	CYLINDER HEAD ASSY	110	\$595.95	M-6252-A202	2.0L FOCUS CAM KIT	173	\$375.00
M-6049-ZX3P	2.0L ZETEC CNC CYLINDER HEAD	174	\$895.95	M-6252-A203	2.0L FOCUS CAM KIT	173	\$375.00
M-6050-P46	4.6L PI CYLINDER HEAD	44	\$395.00	M-6253-A50	ROLLER CAM CONV KIT	90	\$49.95
M-6050-T46	HIGH FLOW 4V HEAD LH	44	\$795.00	M-6256-T6486	ZETEC CAMSHAFT TIMING KIT	167	\$19.95
M-6051-A302	HEAD GASKET	104	\$32.95	M-6256-T6487	MODULAR CAM TIMING KIT	167	\$129.95
M-6051-A341	HEAD GASKET	104	\$37.95	M-6256-Z20	ADJUSTABLE CAM SPROCKET	173	\$165.00
M-6051-A427	HEAD GASKET	104	\$37.95	M-6261-A460	CAMSHAFT BEARINGS	86	\$35.95
M-6051-A441	HEAD GASKET	104	\$44.95	M-6261-C351	ROLLER CAM BEARINGS	86	\$26.95
M-6051-A50	HIGH PERF 5.0 GSK KIT	102	\$105.00	M-6261-C450	ROLLER CAM BEARINGS	45	\$60.42
M-6051-B341	HEAD GASKET SET	104	\$44.95	M-6261-D351	ROLLER CAM BEARINGS	86	\$65.95
M-6051-B460	HEAD GASKET SET	104	\$47.95	M-6261-J351	CAMSHAFT BEARINGS	68	\$129.95



Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-6261-R351 M-6266-D46 M-6268-A302 M-6268-A351	CAMSHAFT BEARINGS CAM TIMING KIT CHAIN & SPROCKET SET CHAIN & SPROCKET SET	68 49 82 82	\$17.95 \$159.95 \$74.95 \$74.95	M-6397-A46 M-6500-B303 M-6500-C302 M-6500-R302	11" CLUTCH BOLT KIT TAPPET SET HYD OEM (16) TAPPET SET MECHANICAL (16) TAPPET SET HYD ROLLER (16)	129 84 84 84 84	\$13.95 \$99.95 \$99.95 \$135.00
M-6268-A390 M-6268-A460 M-6268-B302 M-6268-B429	CHAIN & SPROCKET SET CHAIN & SPROCKET SET CHAIN & SPROCKET SET CHAIN & SPROCKET SET	82 82 82 82 82	\$74.95 \$74.95 \$74.95 \$74.95	M-6500-S58 M-6500-T46 M-6505-A304 M-6505-A351	TAPPET SET RETRO HYD ROLLER 4.6L 4V PRODUCTION VALVE KIT EXHAUST VALVE EXHAUST VALVE	84 45 92 92	\$469.00 \$175.00 \$14.95 \$14.95
M-6268-C302	REPLACEMENT CHAIN	82	\$46.00	M-6505-A429	EXHAUST VALVE	92	\$14.95
M-6268-C450	TIMING CHAIN AND SPROCKET	45	\$699.00	M-6505-B304	EXHAUST VALVE	92	\$13.00
M-6268-F302	CHAIN AND SPROCKET SET	82	\$285.00	M-6505-D461	EXHAUST VALVE	92	\$10.95
M-6268-G302	REPLACEMENT CHAIN	82	\$165.00	M-6505-T46	EXHAUST VALVE	45	\$10.95
M-6269-A351 M-6269-A460 M-6269-C450 M-6287-B302	Thrust plate Thrust plate Thrust plate Eccentric	82 82 65 82	\$39.95 \$74.95 \$83.00 \$20.95	M-6505-ZX3 M-6507-A304 M-6507-A351 M-6507-A429	30mm focus exhaust valve Intake valve Intake valve Intake valve Intake valve	174 92 92 92	\$14.00 \$14.95 \$14.95 \$14.95
M-6287-C302 M-6303-A385 M-6303-A50 M-6303-A514	ECCENTRIC FINISHED CRANKSHAFT FINISHED CRANKSHAFT FINISHED CRANKSHAFT	82 78 78 78 78	\$25.95 \$549.95 \$279.95 \$735.95	M-6507-B429 M-6507-D461 M-6507-J302 M-6507-T46	INTAKE VALVE INTAKE VALVE INTAKE VALVE INTAKE VALVE	92 92 92 45	\$14.95 \$10.95 \$12.95 \$10.95
M-6303-B340	FINISHED CRANKSHAFT	78	\$335.95	M-6507-ZX3	33MM FOCUS INTAKE VALVE	174	\$14.00
M-6303-B385	Forged Crankshaft	78	\$849.95	M-6510-Y303	VALVE GUIDE KIT (4 PACK)	92	\$17.95
M-6303-C340	Finished Crankshaft	78	\$699.95	M-6513-A351	VALVE SPRINGS (16 PACK)	92	\$65.95
M-6303-C46	Cast 4.6L Crank	48	\$69.00	M-6513-A50	VALVE SPRINGS (16 PACK)	92	\$75.95
M-6303-D46	COBRA STEEL CRANKSHAFT	48	\$699.95	M-6513-T46	HI LIFT 4.6L VALVE SPRINGS (32)	45	\$339.95
M-6303-K351	FINISHED CRANKSHAFT	78	\$350.00	M-6513-ZX3E	Zetec Valvespring Set	174	\$225.00
M-6303-M54	5.4L STEEL CRANKSHAFT	48	\$350.00	M-6514-A50	Valve Spring Retainers (16)	90	\$48.95
M-6303-T6024	CRANKSHAFT POSITION TOOL	167	\$149.95	M-6514-B50	Valve Spring Retainers (16)	90	\$48.95
M-6316-A460	CRANKSHAFT DAMPER	80	\$299.95	M-6518-B351	VALVE KEEPERS V-8 (SET OF 16)	90	\$21.95
M-6316-A50	CRANKSHAFT DAMPER	80	\$299.95	M-6527-C311	ROCKERARM STUDS (16)	90	\$52.95
M-6316-B50	CRANKSHAFT DAMPER	80	\$98.95	M-6527-D311	ROCKERARM STUDS (16)	90	\$46.95
M-6316-C351	CRANKSHAFT DAMPER	80	\$274.95	M-6529-A302	ROCKER ARM SHIM KIT	90	\$8.95
M-6316-D461	CRANKSHAFT DAMPER	48	\$325.95	M-6536-E351	VALVE SPRING SEAT (16)	90	\$50.95
M-6316-J351	CRANKSHAFT DAMPER	80	\$98.95	M-6536-SCJ	SCJ VALVE SPRING CUP SET	90	\$42.95
M-6316-K351	CRANK DAMPER KIT	80	\$69.95	M-6550-T46	HIGH LIFT CAM KIT	45	\$1,699.95
M-6316-M50	5.0L DAMPER KIT	80	\$69.95	M-6564-A351	ROLLER ROCKER SET	100	\$325.95
M-6333-A351	Main Bearings	86	\$67.95	M-6564-A460	Roller Rocker Set	100	\$369.95
M-6339-A351	Main Brg Spacer Kit	86	\$79.95	M-6564-A50	Roller Rocker Set	100	\$265.95
M-6340-A302	5.0L Main Cap Girdle	96	\$324.95	M-6564-AS51	Roller Rocker (PR)	100	\$53.95
M-6340-A347	Main Cap Girdle	96	\$324.95	M-6564-AS60	Roller Rocker (PR)	100	\$59.95
M-6340-A460	MAIN CAP GIRDLE	96	\$365.95	M-6564-B351	Roller Rocker Set	100	\$369.95
M-6340-B351	MAIN CAP GIRDLE	96	\$325.95	M-6564-BS51	Roller Rocker (PR)	100	\$59.95
M-6359-C460	SPACER-CRANK DAMPER	81	\$39.95	M-6564-C351	Roller Rocker Set	100	\$399.95
M-6359-D460	CRANK SPACER	81	\$31.95	M-6564-C351	Roller Rocker (PR)	100	\$52.95
M-6375-A302	Flywheel M/T 157/28 Steel	129	\$249.95	M-6564-D351	Roller Rocker Set	100	\$349.95
M-6375-A302A	Aluminum M/T Flywheel 157/28	129	\$425.95	M-6564-DS51	Roller Rocker Set	100	
M-6375-A50	Flywheel C-4/AOD 164/50	128	\$38.95	M-6564-E351	Roller Rocker Set	100	
M-6375-B302	Flywheel M/T 157/50 CI	129	\$104.95	M-6564-E351	Roller Rocker (PR)	100	
M-6375-B460	FLYWHEEL C-6 1979-97	128	\$62.95	M-6564-F351	ROLLER ROCKER SET	100	
M-6375-C302	FLYWHEEL M/T 157/50 STEEL	129	\$249.95	M-6564-K351	ROLLER ROCKER SET	100	
M-6375-C302A	ALUMINUM M/T FLYWHEEL 157/50	129	\$425.95	M-6565-C347	PUSHRODS (16 PACK)	91	
M-6375-D302	FLYWHEEL M/T 157/0 STEEL	129	\$249.95	M-6565-C392	PUSHRODS (16 PACK)	91	
M-6375-D302A	ALUMINUM M/T FLYWHEEL 157/0	129	\$425.95	M-6565-L302	PUSHRODS (16 PACK)	91	\$38.95
M-6375-D46	FLYWHEEL M/T 4.6L 6-BOLT NI	48	\$140.00	M-6565-L312	PUSHRODS (16 PACK)	91	\$38.95
M-6375-E302	FLYWHEEL C-4 157/50	128	\$145.00	M-6565-L332	PUSHRODS (16 PACK)	91	\$38.95
M-6375-F46	FLYWHEEL M/T 4.6L 6-BOLT STEEL	48	\$289.95	M-6565-L460	PUSHRODS (16 PACK)	91	\$38.95
M-6375-G302 M-6375-G46 M-6375-H302 M-6375-H46	FLYWHEEL C-4 164/28 FLYWHEEL M/T 4.6L 8-BOLT STEEL FLYWHEEL C-6 164/28 FLYWHEEL A/T 4.6L DOHC	128 48 128 128	\$64.95 \$259.95 \$64.95 \$64.95	M-6565-L58 M-6565-M332 M-6565-M342 M-6565-M460	PUSHRODS (16 PACK) PUSHRODS (16 PACK) PUSHRODS (16 PACK) PUSHRODS (16 PACK)	91 91 91 91 91	\$38.95 \$38.95 \$38.95 \$139.95
M-6375-J302	FLYWHEEL C-6 164/50	128	\$42.95	M-6565-N332	PUSHRODS (16 PACK)	91	\$39.95
M-6375-J46	FLYWHEEL M/T 11" IRON 8-BOLT	48	\$140.00	M-6565-N460	PUSHRODS (16 PACK)	91	\$139.95
M-6375-R00	FLYWHEEL M/T 4.6L 8-BOLT ALUM	48	\$425.95	M-6565-P460	PUSHRODS (16 PACK)	91	\$139.95
M-6375-Z460	FLYWHEEL M/T 460 1979-96	129	\$274.95	M-6565-R460	PUSHRODS (16 PACK)	91	\$139.95
M-6375-ZX3	2.0L FOCUS FLYWHEEL	189	\$99.95	M-6566-D302	GUIDE PLATE (8 PACK)	91	\$25.95
M-6379-A	4.6L FLYWHEEL BOLTS AUTO (6)	128	\$9.95	M-6566-D311	GUIDE PLATE (8 PACK)	91	\$25.95
M-6379-B	4.6L FLYWHEEL BOLTS MANUAL (8)	129	\$11.95	M-6566-D351	GUIDE PLATE (8 PACK)	91	\$27.95
M-6392-C	UNIV STL CLUTCH HSG	130	\$310.00	M-6566-D429	GUIDE PLATE (8 PACK)	91	\$25.95
M-6392-E	5.0L T-5 BELL HOUSING	130	\$189.95	M-6566-E429	GUIDE PLATE (8 PACK)	73	\$27.95
M-6392-M46	4.6L 3550 BELLHOUSING	130	\$375.00	M-6566-SCJ	GUIDE PLATE (8 PACK)	91	\$34.95
M-6392-R58	CLUTCH HSG ALUM TREMEC	130	\$195.00	M-6569-C351	STUD GIRDLE KIT	90	\$149.95
M-6397-A302	PP BOLT AND DOWEL KIT	129	\$13.95	M-6571-A50	VALVE STEM SEAL (SET OF 16)	92	\$30.00

Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-6571-B221 M-6582-A M-6582-A301R M-6582-A302R	VALVE STEM SEAL (16 PACK) VALVE COVER COBRA SET VALVE COVER SET VALVE COVER SET	92 117 117 117 117	\$35.00 \$115.95 \$109.95 \$115.95	M-6687-A351 M-6687-A390 M-6687-B302 M-6687-B351	351W WINDAGE TRAY 390 WINDAGE TRAY WINDAGE TRAY WINDAGE TRAY	96 96 96 96	\$124.95 \$39.95 \$145.00 \$145.00
M-6582-A341R	VALVE COVER SET	119	\$109.95	M-6687-D46	WINDAGE TRAY	49	\$33.95
M-6582-A342R	VALVE COVER SET	119	\$129.95	M-6701-A460	REAR MAIN SEAL	103	\$16.95
M-6582-A351R	EFI TRUCK VALVE COVER SET	118	\$145.95	M-6701-B302	REAR MAIN SEAL	103	\$11.95
M-6582-A390R	CHROME VALVE COVER SET	118	\$54.95	M-6701-B351	REAR MAIN SEAL	103	\$11.95
M-6582-A427	VALVE COVER POL COBRA SET	119	\$179.95	M-6701-T7786	REAR MAIN SEAL INSTALLER	168	\$139.95
M-6582-A429R	CHROME VALVE COVER SET	119	\$54.95	M-6710-A351	ONE PC OIL PAN GASKET	102	\$18.95
M-6582-A54	VALVE COVERS 4V BLUE	47	\$299.00	M-6710-A460	7.5L 1PC OIL PAN GASKET	102	\$22.95
M-6582-B	VALVE COVER BLK COBRA SET	119	\$169.95	M-6710-A50	OIL PAN GASKET 5.0L	102	\$18.95
M-6582-B301	VALVE COVER BLK MUST SET	117	\$109.95	M-6710-B351	ONE PIECE OIL PAN GASKET	102	\$23.95
M-6582-B303R	CHROME VALVE COVER SET	117	\$54.95	M-6710-B460	ONE PIECE OIL PAN GASKET	102	\$17.95
M-6582-B351R	EFI TRUCK VALVE COVER SET	118	\$164.95	M-6710-ZX3	2.0L FOCUS GASKET	189	\$13.95
M-6582-C351R	VALVE COVER CHROME SET	119	\$54.95	M-6710-ZX3A	2.0L FOCUS GASKET	189	\$9.95
M-6582-C460 M-6582-D302 M-6582-E302P M-6582-F301	VALVE COVER POL RACING SET VALVE COVER CHROME SET VALVE COVER POL RACING SET VALVE COVER POL MSTG SET	119 117 117 117 117	\$129.95 \$244.95 \$104.95 \$124.95	M-6731-FL1995 M-6731-FL1A M-6731-FL299 M-6731-FL300	CASE OF 12 CM-6731-FL1995 CASE OF 12 CM-6731-FL1A CASE OF 12 CM-6731-FL299 CASE OF 12 CM-6731-FL300	97 97 97 97	\$239.95 \$165.00 \$239.95 \$165.00
M-6582-F302	VALVE COVER BLK COBRA SET	117	\$119.95	M-6731-FL400	CASE OF 12 CM-6731-FL400	97	\$165.00
M-6582-F303	VALVE COVER POL COBRA SET	117	\$139.95	M-6731-FL784	CASE OF 12 CM-6731-FL784	97	\$239.95
M-6582-G302	OVAL TRACK VALVE COVER SET	119	\$52.95	M-6731-FL820	CASE OF 12 CM-6731-FL820	97	\$165.00
M-6582-L302	VALVE COVER BLK RACING SET	117	\$104.95	M-6750-A302	DIPSTICK & TUBE	124	\$13.50
M-6582-R302 M-6582-R351 M-6582-R460 M-6582-Z351	VALVE COVER CHROME SET VALVE COVER CHROME SET VALVE COVER CHROME SET VALVE COVER POL RACING SET	117 119 119 119 119	\$195.95 \$199.95 \$199.95 \$119.95	M-6750-B302 M-6750-C303 M-6750-D303 M-6750-E303	DIPSTICK & TUBE DIPSTICK & TUBE TRANS DIPSTICK & TUBE TRANS DIPSTICK & TUBE	124 124 133 133	\$15.95 \$27.95 \$27.95 \$27.95
M-6584-A452	GASKET SET ROCKER COVER	103	\$50.00	M-6766-A302	BREATHER CAP	120	\$7.50
M-6584-A460	VALVE COVER GASKET SET	103	\$27.95	M-6766-B302	BREATHER CAP	120	\$7.50
M-6584-A50	VALVE COVER GASKET SET 5.0L	103	\$27.95	M-6766-D302	BREATHER CAP	120	\$7.50
M-6584-ZX3	2.0L CAM COVER GSK	189	\$23.95	M-6766-F302	OIL FILL CAP	120	\$12.95
M-6588-A50	Rocker Channel Kit (8 Pack)	90	\$21.95	M-6766-G302	BREATHER CAP	120	\$7.50
M-6600-A460	High Volume Oil Pump	96	\$85.95	M-6766-GT	OIL FILL CAP	120	\$60.00
M-6600-B3	High Volume Oil Pump	96	\$65.95	M-6766-H302	BREATHER CAP	120	\$14.95
M-6600-D2	High Volume Oil Pump	96	\$55.95	M-6766-K302	BREATHER CAP	120	\$20.95
M-6600-D46	High volume oil pump	49	\$55.95	M-6766-M46	BILLET OIL FILL COVER	120	\$41.00
M-6600-M50	oil pump	96	\$35.95	M-6766-MP46	BILLET MUSTANG OIL FILL CAP	120	\$44.00
M-6600-T6492	Engine pre-oiler	167	\$224.95	M-6766-N303	BREATHER CAP	120	\$21.95
M-6600-ZX3	2.0l focus oil pump	189	\$39.95	M-6775-G540	UNIVERSAL INTERCOOLER	42	\$249.00
M-6605-A302	OIL PUMP SHAFT HD	96	\$16.95	M-6781-A341	OIL PAN GASKET	103	\$6.95
M-6605-A341	OIL PUMP SHAFT HD	96	\$16.95	M-6799-A302	OIL RESTRICTOR KIT	68	\$14.95
M-6605-A351	OIL PUMP SHAFT HD	96	\$16.95	M-6799-R351	OIL RESTRICTOR KIT	68	\$18.95
M-6605-A427	OIL PUMP SHAFT HD	96	\$16.95	M-6880-A50	90 DEG OIL FILTER ADAPT	97	\$75.00
M-6605-A429	OIL PUMP SHAFT HD	96	\$16.95	M-6881-A54	REMOTE FILTER KIT	97	
M-6605-B302	OIL PUMP SHAFT HD	96	\$16.95	M-6881-C100	OIL FILTER ADAPTOR KIT	97	
M-6622-T302	OIL PUMP PICK UP	99	\$59.95	M-6892-C	BREATHER CAP GROMMET SET	120	
M-6622-T302F	OIL PUMP PICK UP	99	\$59.95	M-7000-A	T-5 TRANS REBUILD KIT	126	
M-6622-T351 M-6622-T351F M-6642-R58 M-6642-S101	OIL PUMP PICK UP OIL PUMP PICK UP OIL COOL 1995 COBRA R OIL COOLER	99 99 156 97	\$59.95 \$49.95 \$130.00 \$115.00	M-7003-F M-7003-G M-7003-GT M-7003-H	T-56 6-SPEED TRANS T-56 MECH. SPEEDO 1996-98 GT TRANSMISSION T-56 5.0L TRANS	127 126	\$2,675.00 \$2,675.00 \$14,500.00 \$2,250.00
M-6670-A50	FOX CONV KIT 5.0L	101	\$289.00	M-7003-R58C	TREMEC 5SPD EXTRA HD TRANS	127	\$1,850.00
M-6670-G50	V-BELT CONV KIT 5.0L	101	\$289.00	M-7003-R58H	TRANS TKO 600 HD0		\$1,850.00
M-6675-A460	460 FOX OIL PAN KIT	101	\$150.00	M-7003-R58W	TREMEC 5SPD HD TRANS		\$1,850.00
M-6675-A50	5.0L OIL PAN KIT	101	\$110.00	M-7003-Z	SHD T-5 TRANS		\$1,395.00
M-6675-A58	351 FOX OIL PAN KIT	101	\$149.95	M-7050-A	BEARING RETAINER	126	
M-6675-B302	302 CHROME PAN	98	\$89.95	M-7050-B	BEARING RETAINER	126	
M-6675-C302	302 FOX CHROME PAN	98	\$135.00	M-7060-C46	11" CL UPGRADE KIT	131	
M-6675-C351	351C CHROME PAN	98	\$79.95	M-7060-D46	2003 FLYWHEEL & CLUTCH KIT	131	
M-6675-D46	4.6L OIL PAN CORE	98	\$37.00	M-7063-TSP1	F150 TRANFER SKID PLATE	210	\$22.00
M-6675-E351	351W CHROME PAN	98	\$89.95	M-7063-TSP2	F150 TRANSFER SKID PLATE	210	
M-6675-F351	351W OIL PAN	98	\$69.95	M-7095-SR	TRANS OIL COOLER	134	
M-6675-J390	390 CHROME PAN	98	\$74.95	M-7100-FVB	FOCUS RECAL VALVE BODY	178	
M-6675-K390	390 OIL PAN	98	\$54.95	M-7101-F	AOD SHIFT KIT	135	\$34.95
M-6675-L302	302 OIL PAN	98	\$54.95	M-7101-H	TRANS RECALKIT E40D	135	
M-6675-T302	REAR T-SUMP RACE OIL PAN	99	\$309.95	M-7194-AD	AOD TRANSMISSION OIL PAN	133	
M-6675-T302F	FRONT T-SUMP RACE OIL PAN	99	\$329.95	M-7194-C4	TRANS PAN CHROME	133	
M-6675-T351	REAR T-SUMP RACE OIL PAN	99	\$314.95	M-7194-C6	TRANS PAN CHROME	133	\$195.00
M-6675-T351F	FRONT T-SUMP RACE OIL PAN	99	\$319.95	M-7195-4R	4R70W DEEP CAST ALUM PAN	133	
M-6681-A302	HOLD DOWN TAB (8 PACK)	120	\$6.75	M-7195-A0D	AOD/AODE DEEP CAST PAN	133	
M-6687-A302	302 WINDAGE TRAY	96	\$64.95	M-7195-C4D	C4 DEEP SUMP ALUM TRANS PAN	199	



Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-7195-C6 M-7195-T M-7210-L M-7210-M	C6 DEEP SUMP ALUM TRANS PAN E40D/4R100 DEEP ALUM PAN B&M HD T-5 SHIFTER T-5/T-45 HURST SHIFTER	133 133 125 125	\$195.00 \$220.00 \$205.00 \$185.00	M-7902-M M-7902-N M-7902-P M-7902-Q	C4 TORQUE CONV 1964-69 3000 RPM C4 TORQUE CONV 1964-69 3000 RPM C4 TORQUE CONV 1970-81 3000 RPM C4 TORQUE CONV 1970-81 3000 RPM	135 135 135 135 135	\$209.00 \$299.00 \$265.00 \$385.00
M-7210-N M-7210-R M-7210-S M-7210-T	T-5/T-45 SHIFTER GRAND AM CUP SHIFTER SVT FOCUS SHIFTER 2005-06 PERF SHORT THROW	125 11 184 15	\$179.00 \$522.00 \$85.95 \$210.00	M-7902-R M-7902-S M-7902-T M-7902-U	C6 TORQUE CONV 3000 RPM 1.848P C6 TORQUE CONV 3000 RPM 1.375P AOD TORQUE CONV 3000 RPM AODE TORQUE CONV 1993-UP	135 135 135 135 135	\$405.00 \$405.00 \$405.00 \$299.00
M-7210-T56	T-56 Shifter	125	\$189.00	M-8005-C	ALUM RADIATOR 1979-93	157	\$310.00
M-7210-U	2005-06 Short Throw Shifter	17	\$264.00	M-8005-C03	HIGH PERFORMANCE RADIATOR	157	\$325.00
M-7210-Z2	ZX2-R Shifter	184	\$154.95	M-8005-HD	F150 HARLEY-DAVIDSON RADIATOR	197	\$215.00
M-7210-Z3	Focus Shifter	184	\$115.95	M-8005-L	F150 LIGHTNING RADIATOR	197	\$219.00
M-7210-Z3A	2002.5 FOCUS SHIFTER	184	\$152.95	M-8005-P221	HIGH PERFORMANCE RADIATOR	197	\$660.00
M-7213-A	Shift Knob	125	\$39.95	M-8005-R58	ALUM RADIATOR 1995 COBRA R	157	\$269.00
M-7213-B	T-56 Shift Knob	125	\$32.95	M-8005-S197	HIGH PERFORMANCE RADIATOR	157	\$650.00
M-7213-C	T-56 Shift Knob Carbon	125	\$52.95	M-8006-GT	BILLET COOLANT OVERFLOW CAP	9	\$59.95
M-7213-D M-7213-E M-7213-F M-7213-G	5-SPEED CARBON SHIFT KNOB CARBON LEATHER SHIFT KNOB SHIFT KNOB 5-SPEED COBRA SHIFT KNOB	125 125 125 125 125	\$65.00 \$37.95 \$49.95 \$45.00	M-8080-FC M-8080-R58 M-8200-F M-8200-SD	FOCUS DE-GAS COVER DE-GAS BOTTLE 1995 R F150 TUBE GRILLE 1997-03 F250/350 TUBE GRILLE 1999-00	185 157 211 211	\$19.95 \$42.00 \$159.00 \$159.00
M-7213-GT	SHIFT KNOB	9	\$89.00	M-8226-L	1999-04 Lightning HD Intercooler	197	\$450.00
M-7213-H	MACH 1 SHIFT KNOB	125	\$47.00	M-8501-A50	Water Pump Kit	94	\$205.00
M-7213-RS	RS SHIFT KNOB	184	\$49.99	M-8501-A58	Water Pump Kit	95	\$445.00
M-7240-B	#9 NEEDLE BEARING	134	\$8.95	M-8501-B50	Water Pump	95	\$205.00
M-7240-F	#7/8 NEEDLE BRG THRUST	134	\$8.95	M-8501-C460	WATER PUMP	95	\$215.00
M-7277-A	Shift Boot	125	\$81.00	M-8501-C50	WATER PUMP	95	\$48.95
M-7277-B	Shifter Boot Carbon	125	\$49.95	M-8501-D351S	WATER PUMP	95	\$220.00
M-7277-Z2	ZX2-R Shift Boot	185	\$40.00	M-8501-D50	SHORT SERPENTINE WATER PUMP	94	\$49.95
M-7343-A	MTX 4.06 GEAR SET	178	\$149.95	M-8501-E351S	WATER PUMP	94	\$140.00
M-7398-D	AOD WIDE RATIO GEAR SET	134	\$625.00	M-8501-E46	4.6L WATER PUMP TALL	47	\$69.95
M-7398-F	WIDE RATIO GEAR SET	134	\$415.00	M-8501-F351	WATER PUMP	95	\$199.00
M-7515-A	CLUTCH LEVER SN95	132	\$20.00	M-8501-G351	WATER PUMP	95	\$48.95
M-7548-A	CLUTCH RELEASE BEARING	132	\$35.00	M-8501-L54	ELECTRIC WATER PUMP	197	\$149.00
M-7550-T302	CLUTCH DISC 26-10.5"	131	\$159.00	M-8501-R351	WATER PUMP ASSEMBLY	95	\$260.00
M-7550-X302	CLUTCH DISK	131	\$145.00	M-8501-ZX3	2.0L FOCUS WATER PUMP	189	\$39.95
M-7550-ZX3	2.0L FOCUS CLUTCH DISC	189	\$49.95	M-8505-B331	WATER PUMP HOUSING	95	\$130.00
M-7553-A302	Linkage kit	132	\$46.00	M-8509-A50	UNDERDRIVE PULLEY SET	93	\$105.00
M-7553-B302	Adj Clutch Cable kit	132	\$98.00	M-8509-A51	UNDERDRIVE PULLEY SET	93	\$120.00
M-7553-C302	Replacement Cable	132	\$46.00	M-8509-CM	BILLET V-PULLEYS 1 GROOVE	93	\$184.95
M-7553-D302	Cable and Quadrant kit	132	\$98.00	M-8509-D462	UNDERDRIVE PULLEY SET	93	\$175.00
M-7553-E302	SERVICE CABLE 1996-03	132	\$46.00	M-8509-DM	BILLET V-PULLEYS 1 GROOVE	93	\$184.95
M-7553-T7646	HYD CLUTCH COUPLING TOOL	168	\$10.95	M-8509-EM	BILLET V-PULLEYS 2 GROOVE	93	\$184.95
M-7554-A	BULKHEAD ADJUSTER	132	\$37.95	M-8509-M	UNDERDRIVE PULLEYS	94	\$185.00
M-7560-A302N	CLUTCH KIT	131	\$185.00	M-8509-ZX2	2.0L UNDERDRIVE PULLEY KIT	173	\$149.95
M-7560-C302N M-7560-T46 M-7560-Z2 M-7563-B302	10.4" CLUTCH KIT CLUTCH ASSEMBLY 26-11.0" ZX2-R CLUTCH 10.5" CENT CLUTCH	131 131 178 131	\$199.00 \$369.00 \$289.95 \$199.00	M-8509-ZX3 M-8510-A351 M-8510-B351 M-8510-C351	2.0L UNDERDRIVE PULLEY KIT CRANK PULLEY SPACER CRANK PULLEY SPACER CRANK PULLEY SPACER	173 81 81 81	\$129.95 \$29.95 \$29.95 \$29.95 \$29.95
M-7563-D302N	10.4" PR PL LOW INERTIA	131	\$245.00	M-8511-A351	ACCESSORY DRIVE KIT PS	93	\$34.95
M-7563-Z3	Focus 2.0L Zetec Clutch Kit	178	\$209.95	M-8511-A50	A/C ELIMINATOR KIT	93	\$39.95
M-7563-ZX3	2.0L Focus Pressure Plate	189	\$35.00	M-8511-B351	ACCESSORY DRIVE KIT A/C	93	\$52.95
M-7583-A	Double Hook Quadrant	132	\$36.00	M-8512-A302	PUMP IMPELLER	95	\$35.00
M-7600-A	SB ROLLER PILOT BEARING	132	\$10.95	M-8564-A351	WATER PUMP ASY KIT	95	\$49.95
M-7600-B	4.6L ROLLER PILOT BEARING	132	\$10.95	M-8575-D461	THERMOSTAT	46	\$15.95
M-7600-T7318	PILOT BEARING PULLER KIT	168	\$94.95	M-8592-A302	WATER OUT CONN	124	\$16.95
M-7843-A	BILLET FORD OVAL 7-1/4"	206	\$39.00	M-8592-A351	WATER OUT CONN	124	\$14.95
M-7843-B	BILLET FORD RACING BADGE 7-1/4"	206	\$39.00	M-8592-A429	WATER OUT CONN	124	\$14.95
M-7843-C	BILLET FORD OVAL 9"	209	\$42.00	M-8592-B302	WATER OUT CONN	124	\$22.95
M-7843-D	BILLET FORD LOGO 2004 F150	209	\$42.00	M-8592-C302	WATER OUT CONN	124	\$13.95
M-7843-V8	STICK-ON CHROME V-8 BADGE	161	\$9.95	M-8592-F390	WATER OUT CONN	124	\$13.95
M-7902-D1 M-7902-D2 M-7902-D3 M-7902-D4	DIESEL TORQUE CONVERTER DIESEL TORQUE CONVERTER DIESEL TORQUE CONVERTER DIESEL TORQUE CONVERTER	135 135 135 135 135	\$710.00 \$710.00 \$710.00 \$710.00	M-8604-A50 M-8620-S461 M-9000-A51 M-9000-B50	COMP A/P IDLER SUPERCHARGER BELT MUSTANG MASS AIR KIT MUSTANG MASS AIR KIT	93 45 114 114	\$89.95 \$29.95 \$695.00 \$695.00
M-7902-D5	DIESEL TORQUE CONVERTER	135	\$209.00	M-9000-SVTF	SVT FOCUS JRSC UPGRADE	176	\$499.00
M-7902-FD	Focus Torque convertor	178	\$570.00	M-9000-T50	MASS AIR TRK 5.0L M/T	114	\$750.00
M-7902-FR	Focus converter & Input Kit	178	\$1,349.95	M-9000-T51	MASS AIR TRK 5.0L A/T	114	\$795.00
M-7902-G	C4 Torque conv 1964-69 2200 RPM	135	\$255.00	M-9000-ZX3	JRSC BIG BOOST KIT	176	\$499.00
M-7902-H	C4 TORQUE CONV 1970-81 2200 RPM	135	\$255.00	M-9066-M461	S/C INSTALLATION KIT	45	\$1,350.00
M-7902-J	C6 TORQUE CONV 2200 RPM 1.848P	135	\$255.00	M-9066-M462	S/C INSTALLATION KIT	45	\$1,350.00
M-7902-K	C6 TORQUE CONV 2200 RPM 1.375P	135	\$199.00	M-9066-M463	S/C INSTALLATION KIT	45	\$1,425.00
M-7902-L	AOD TORQUE CONV 1981-90	135	\$265.00	M-9147-FTSP1	F150 FUEL TANK SKID PLATE	210	\$85.00

Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-9147-FTSP2 M-9147-FTSP3 M-9275-A200 M-9275-A258	F150 FUEL TANK SKID PLATE F150 FUEL TANK SKID PLATE FUEL PRESS GAUGE 2-1/16" FUEL PRESS GAUGE 2-5/8"	210 210 159 159	\$85.00 \$85.00 \$59.95 \$59.95	M-9448-A464 M-9448-B302 M-9461-B50 M-9464-A50	HEADER GASKET 4.6L 4V HEADER GASKET 5.0L OFF ROAD GT40 INTAKE EGR SPACER GASKET (5 PACK)	87 87 112 113	\$20.95 \$8.95 \$269.00 \$27.95
M-9278-A200 M-9278-A258 M-9280-T7337 M-9407-C50	OIL PRESS GAUGE 2-1/16" OIL PRESS GAUGE 2-5/8" FUEL LINE DISCONNECT TOOL HIGH FLOW FUEL PUMP	159 159 169 113	\$55.95 \$59.95 \$13.95 \$259.00	M-9474-A50 M-9486-A460 M-9486-A50 M-9486-A51	EGR SPACER 1967 MM CRANKCASE EVAC PUMP UPPER TO LOWER GASKET (5 PACK) INTAKE SPACER	113 96 113 113	\$39.95 \$189.00 \$20.00 \$55.95
M-9407-L54 M-9424-A321 M-9424-B302 M-9424-C460	LIGHTNING FUEL PUMP INTAKE MANIFOLD INTAKE MANIFOLD INTAKE MANIFOLD	197 74 74 75	\$325.00 \$190.00 \$450.00 \$450.00	M-9486-A52 M-9486-A53 M-9500-T7798 M-9593-A302	INTAKE SPACER INTAKE SPACER TRANSLINE DISCONNECT TOOL 24# FUEL INJECTOR (8 PACK)	113 113 168 115	\$55.95 \$79.95 \$53.95 \$310.00
M-9424-C82S M-9424-D302 M-9424-DP50 M-9424-E302	INTAKE MANIFOLD 8.2" DECK INTAKE MANIFOLD INTAKE MANIFOLD ASSEMBLY INTAKE MANIFOLD	74 74 46 74	\$315.00 \$275.00 \$3,095.00 \$199.00	M-9593-A302F M-9593-A304 M-9593-A304F M-9593-B302	24# FLOWED INJECTOR (8 PACK) 24# FUEL INJECTOR (4 PACK) 24# FLOWED INJECTOR (4 PACK) 30# FUEL INJECTOR (8 PACK)	115 115 115 115 115	\$395.00 \$180.00 \$210.00 \$305.00
M-9424-E46 M-9424-G429 M-9424-H429 M-9424-P351	INTAKE MANIFOLD BASE KIT INTAKE MANIFOLD INTAKE MANIFOLD INTAKE MANIFOLD	46 75 75 74	\$1,695.00 \$350.00 \$350.00 \$175.00	M-9593-B302F M-9593-B304 M-9593-B304F M-9593-C302	30# FLOWED INJECTOR (8 PACK) 30# FUEL INJECTOR (4 PACK) 30# FLOWED INJECTOR (4 PACK) 19# FUEL INJECTOR (8 PACK)	115 115 115 115 115	\$385.00 \$180.00 \$210.00 \$265.00
M-9424-P351P M-9424-P46 M-9424-T46 M-9424-V351	INTAKE MANIFOLD 4.6L PI INTAKE MANIFOLD INTAKE MANIFOLD ASSEMBLY INTAKE MANIFOLD	74 46 46 74	\$225.00 \$209.00 \$3,995.00 \$310.00	M-9593-C304 M-9593-E303 M-9593-E304 M-9593-F302	19# FUEL INJECTOR (4 PACK) 150# FUEL INJECTOR (8 PACK) 150# FUEL INJECTOR (4 PACK) 42# FUEL INJECTOR (8 PACK)	115 115 115 115 115	\$160.00 \$495.00 \$275.00 \$450.00
M-9424-Z351 M-9424-Z51 M-9424-Z51P M-9430-A58	INTAKE MANIFOLD INTAKE MANIFOLD KIT POLISHED INTAKE MANIFOLD KIT HEADER 351W FOX	74 112 112 87	\$285.00 \$425.00 \$535.00 \$299.00	M-9593-F302F M-9593-F304 M-9593-F304F M-9593-M23	42# FLOWED INJECTOR (8 PACK) 42# FUEL INJECTOR (4 PACK) 42# FLOWED INJECTOR (4 PACK) 23# FUEL INJECTOR (8 PACK)	115 115 115 115 115	\$495.00 \$245.00 \$280.00 \$295.00
M-9430-C95 M-9430-E462 M-9430-E463 M-9430-E464	HEADER 1994-05 MUSTANG CC 4.6L 2V HEADER 4.6L 2V COATED HEADER 4.6L 4V HEADER	87 49 49 49	\$495.00 \$350.00 \$450.00 \$350.00	M-9593-M234 M-9593-M234F M-9593-M23F M-9593-M31	23# FUEL INJECTOR (4 PACK) 23# FLOWED INJECTOR (4 PACK) 23# FLOWED INJECTOR (8 PACK) 31# FUEL INJECTOR (8 PACK)	115 115 115 115 115	\$180.00 \$210.00 \$395.00 \$270.00
M-9430-E465 M-9430-E52 M-9430-F542 M-9430-F542C	4.6L 4V COATED HEADER HEADER 1997 EXPLR 5.0L HEADERS F150 5.4L 2V HEADERS COATED F150 5.4L 2V	49 196 196 196	\$450.00 \$415.00 \$400.00 \$525.00	M-9593-M39 M-9593-M394 M-9593-M394F M-9593-M39F	39# FUEL INJECTOR (8 PACK) 39# FUEL INJECTOR (4 PACK) 39# FLOWED INJECTOR (4 PACK) 39# FLOWED INJECTOR (8 PACK)	115 115 115 115 115	\$395.00 \$180.00 \$210.00 \$395.00
M-9430-F543 M-9430-F543C M-9430-GT M-9430-N95	2004-05 F150 5.4L HEADERS 3V 2004-05 F150 5.4L HEADERS 3V COATED EXHAUST HEADERS HEADER 1994-95 MUSTANG	196 196 9 87	\$389.00 \$479.00 \$2,510.00 \$390.00	M-9593-T46 M-9593-T6551 M-9593-T7211 M-9593-T7448	34# FUEL INJECTOR (8 PACK) FUEL PRESSURE GAUGE TOOL FUEL PRESSURE GAUGE & HOSE FUEL INJECTOR CLEAN TOOL	115 168 168 168	\$315.00 \$298.95 \$99.95 \$199.95
M-9430-P50 M-9430-P51 M-9430-S197 M-9430-S197C	HEADER 1986-93 GT40P HEADER CC GT40P 1986-93 HEADERS UNCOATED HEADERS COATED	87 87 16 16	\$299.00 \$395.00 \$359.00 \$449.00	M-9600-A302R M-9600-C302 M-9600-CF13 M-9600-E302	13" AIR CLEANER OVAL AIR CLEANER CARBON FIBER AIR FILT COVER OVAL AIR CLEANER	121 121 121 121	\$42.00 \$94.95 \$84.00 \$94.95
M-9430-SD682 M-9430-SD682C M-9430-SD683 M-9430-SD683C	SD 6.8L HEADERS 2V SD 6.8L HEADERS 2V COATED SD 6.8L HEADERS 3V SD 6.8L HEADERS 3V COATED	196 196 196 87	\$490.00 \$579.00 \$490.00 \$579.00	M-9600-FR54 M-9600-H302 M-9600-K302 M-9600-L302	COLD AIR INDUCTION KIT 10" AIR CLEANER OVAL AIR CLEANER AIR CLEANER-FORD	198 121 121 121	\$225.00 \$28.95 \$94.95 \$69.95
M-9430-SVTFC M-9430-T50 M-9430-T58 M-9430-V302	COATED SVTF HEADER HEADER F-SERIES 5.0L HEADER F-SERIES 5.8L STREET ROD HEADER CT	172 196 196 87	\$375.00 \$350.00 \$360.00 \$280.00	M-9600-LH54 M-9600-M302 M-9600-P302 M-9600-R302	COLD AIR KIT 2004 LITNG & HRLY AIR CLEANER-MUSTANG OEM 14" AIR CLEANER OVAL AIR CLEANER	198 121 121 121	\$225.00 \$69.95 \$31.95 \$115.00
M-9430-ZX3C M-9430-ZX3L M-9430-ZX3LC M-9432-A50	2.0L FOCUS HEADER KIT 2.0L FOCUS LONG TUBE HEADER COATED LONG TUBE HEADER LOC HEADER BOLT 3/4" SET	172 172 172 87	\$369.00 \$299.00 \$485.00 \$63.00	M-9601-F04 M-9601-F730 M-9601-F877 M-9601-FR2	PERF RELPACE AIR FILTER PERF REPLACE AIR FILTER HIGH PERF REPLACE AIR FILTR HIGH FLOW AIR FILTER ELMT	123 123 123 172	\$36.00 \$41.95 \$38.95 \$39.95
M-9432-A51 M-9432-A54 M-9434-A51 M-9434-A52	LOC HEADER BOLT 1" SET LOC HEADER BOLT 8MM 1.25" SET EFI COVER-MUSTANG EFI COVER-COBRA	87 87 118 118	\$63.00 \$57.95 \$21.95 \$21.95	M-9601-G132 M-9601-G142 M-9601-L540 M-9601-L541	PERF REPLCE AIR FILTER PERF REPLACE AIR FILTER PERF REPLACE AIR FILTER PERF REPLACE AIR FILTER	123 123 123 123 123	\$43.99 \$43.95 \$35.95 \$36.95
M-9434-F200 M-9439-A302 M-9439-A50 M-9439-A51	2.0L ZETEC S/S ENGINE COVER INTAKE MANIFOLD GASKET INTAKE MANIFOLD GASKET COMP INTAKE MANIFOLD GASKET	186 103 103 103	\$64.99 \$10.00 \$33.00 \$25.00	M-9601-M05 M-9601-M302 M-9601-M380 M-9601-M46	HIGH PERF AIR FILTER 2005 MUST PERF REPLACE AIR FILTER PERF REPLACE AIR FILTER PERF REPLACE AIR FILTER	123 123 123 123 123	\$37.35 \$37.95 \$39.95 \$45.95
M-9439-B302 M-9439-D461 M-9439-F460 M-9439-R352	INTAKE MANIFOLD GASKET GASKET INTAKE MANIFOLD GASKET INTAKE MANIFOLD GASKET	103 46 103 103	\$13.00 \$21.95 \$15.50 \$59.00	M-9601-M863 M-9601-R885 M-9601-R984 M-9601-Z200	PERF REPLACE AIR FILTER PERF REPLACE AIR FILTER PERF REPLACE AIR FILTER PERF RELACE AIR FILTER	123 123 123 123 123	\$42.95 \$34.95 \$45.95 \$35.95
M-9444-D46 M-9444-E46 M-9448-A351 M-9448-A462	1996-97 INTAKE HARDWARE 1998 INTAKE HARDWARE HEADER GASKET N351 HEADER GASKET 4.6L 2V	46 46 103 87	\$335.00 \$520.00 \$13.95 \$19.95	M-9659-SVTF M-9659-Z20 M-9659-Z28 M-9659-Z3	SVT AIRBOX & SNORKEL ZX2 COOL AIR SYSTEM ZX2 COOL AIR SYSTEM ZX3 COOL AIR SYSTEM	176 172 172 172	\$195.00 \$119.00 \$119.00 \$169.00



Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-9697-A	WING NUT-FORD	121	\$6.95	M-12297-L903	STREET ROD LOOM SET W/SVO	106	\$99.95
M-9697-C	WING NUT-MUSTANG	121	\$6.95	M-12297-M02	BLACK 2-WIRE DIVIDER (4 PACK)	106	\$6.00
M-9697-E	BILLET FORD AIR CL NUT	121	\$20.00	M-12297-M03	BLACK 3-WIRE DIVIDER (4 PACK)	106	\$6.25
M-9697-F	BILLET FORD CL NUT	121	\$20.00	M-12297-M04	BLACK 4-WIRE DIVIDER (4 PACK)	106	\$6.50
M-9731-T01	RECALIBRATOR 2001-03	142	\$99.95	M-12297-M14	BLACK WIRE LOOM PAIR	106	\$7.95
M-9731-T99	RECALIBRATOR 1999-00	142	\$99.95	M-12297-R02	RED 2-WIRE DIVIDER (4 PACK)	106	\$6.00
M-9818-F202	FOCUS SPD CNT ZETEC TAN	184	\$399.95	M-12297-R03	RED 3-WIRE DIVIDER (4 PACK)	106	\$6.25
M-9818-F203	FOCUS SPD CNT ZETEC BLACK	184	\$399.95	M-12297-R04	RED 4-WIRE DIVIDER (4 PACK)	106	\$6.50
M-9926-B50	THROTTLE BODY 1994-95	112	\$285.00	M-12297-R14	RED WIRE LOOM PAIR	106	\$7.95
M-9926-D462	70MM 4.6L T'BODY	112	\$240.00	M-12390-A	DISTRIBUTOR DRIVEN GEAR	108	\$27.00
M-9927-A50	GT40 ADAPTER 1994-95 MUST	113	\$149.95	M-12390-B	DISTRIBUTOR DRIVEN GEAR	108	\$45.00
M-9933-A50	T'BODY GASKET 67MM (5 PACK)	113	\$7.95	M-12390-C	DISTRIBUTOR DRIVEN GEAR	108	\$55.00
M-9933-B50	THROTTLE BODY GASKET (5 PACK)	113	\$8.95	M-12390-D	DISTRIBUTOR DRIVEN GEAR	108	\$27.00
M-9933-D462	THROTTLE BODY GASKET (5 PACK)	46	\$11.50	M-12390-E	DISTRIBUTOR DRIVEN GEAR	108	\$55.00
M-10300-T7830	PWR STRG PUMP PULLEY TOOL	168	\$179.95	M-12390-F	DISTRIBUTOR DRIVEN GEAR	108	\$27.00
M-10313-A302	ALTERNATOR BRACE	124	\$24.95	M-12390-G	DISTRIBUTOR DRIVEN GEAR	108	\$27.00
M-10835-A200	BATTERY VOLT GAUGE	159	\$46.95	M-12390-H	DISTRIBUTOR DRIVEN GEAR	108	\$52.00
M-10835-A258	2-5/8" BATT VOLTAGE GAUGE	159	\$50.95	M-12390-J	DISTRIBUTOR DRIVEN GEAR	108	\$75.00
M-10883-A200	WATER TEMP GAUGE 2-1/16"	159	\$79.95	M-12390-K	DISTRIBUTOR GEAR	108	\$135.00
M-10883-A258	WATER TEMP GAUGE 2-5/8"	159	\$79.95	M-12390-L	DISTRIBUTOR GEAR	108	\$135.00
M-11000-A50	MINI-STARTER 302	106	\$195.00	M-12579-L54	90MM LIGHTNING AIR METER	114	\$199.95
M-11000-B50	5.0L SUPER STARTER	106	\$299.00	M-12637-T50H	FUEL CHARGE HARNESS	11	\$635.00
M-11000-ZX3	FOCUS STARTER	189	\$85.00	M-12650-BR50	ENGINE CONTROL MODULE	11	\$1,235.00
M-11620-H200	HARLEY VAC/BOOST GAUGE KIT	160	\$125.00	M-13006-HD	2002-03 HARLEY-DAVIDSON HEADLAMPS	209	\$275.00
M-11622-A200	VACUUM/BOOST GAUGE 2-1/16"	159	\$63.95	M-13006-L03	LIGHTNING HEADLIGHT SET	209	\$275.00
M-11622-A258	VACUUM/BOOST GAUGE	159	\$65.95	M-13008-F201	FOCUS HID HEADLAMP KIT	182	\$959.00
M-12044-A2	CHROME COIL BRACKET	124	\$7.95	M-13008-F202	FOCUS PROJ HEADLAMP KIT	182	\$725.95
M-12071-F302	M/T COMPUTER KIT	114	\$395.95	M-13086-A	FR FOCUS FLOOR MAT (PR)	185	\$33.95
M-12071-G302	AUTO COMPUTER KIT	114	\$395.95	M-13086-B	1996-04 MUSTANG FLOOR MAT (PR)	164	\$34.00
M-12071-J302	SPEED SENSOR CONNECTOR	114	\$20.00	M-13086-C	2005-06 MUSTANG FLOOR MAT (PR)	13	\$34.00
M-12071-K302	RELAY PACKAGE	114	\$89.95	M-13086-D	1996-03 F150 FLOOR MAT (PR)	206	\$35.00
M-12106-A302	DURASPARK CAP KIT	106	\$26.95	M-13086-E	2004 F150 FLOOR MAT (PR)	206	\$35.00
M-12106-B302	EFI DISTRIBUTOR CAP KIT	106	\$26.95	M-13200-L02	LIGHTNING PARK LAMP SET	209	\$129.95
M-12259-C301	9MM IGNITION WIRE SET BLUE	107	\$48.95	M-13200-RS	RS UPPER GRILLE	186	\$179.95
M-12259-C302	9MM IGNITION WIRE SET BLUE	107	\$48.95	M-13200-SVT	SVT UPPER GRILLE W/TURN	187	\$65.95
M-12259-C380	MUSTANG 2001-04 3.8L	107	\$48.95	M-13208-F200	FOCUS SCUFF PLATES	183	\$64.95
M-12259-C460	9MM IGNITION WIRE SET BLUE	107	\$48.95	M-13208-M100	STAINLESS STEEL MUST ENTRY GUARDS	12	\$109.00
M-12259-C462	4.6L 2V IGNITION WIRE SET BLUE	107	\$82.95	M-13208-RS	FOCUS RS SCUFF PLATE KIT	183	\$39.95
M-12259-C464	4.6L 4V IGNITION WIRE SET BLUE	107	\$119.95	M-13208-T100	VEHICLE ENTRY GUARDS (PR)	207	\$52.95
M-12259-C625	2.5L COUGAR 9MM WIRE SET BLUE	107	\$45.95	M-13404-L01	LIGHTNING TAILLIGHT SET	209	\$129.95
M-12259-C630	TAURUS 2001-03 3.0L 4V	107	\$22.00	M-13564-F	2001-03 F150 REAR LAMP COVER	210	\$95.00
M-12259-C634	TAURUS 1996-99 3.0L 4V	107	\$23.00	M-13564-S	2001-03 F150 REAR LAMP COVER	210	\$95.00
M-12259-C725	Cougar 2000 2.5L V6	107	\$30.00	M-13613-F150	F150 LED CHMSL LIGHT	209	\$79.95
M-12259-FR2	2.0L Focus Ignition Wire Set	107	\$38.95	M-14305-A351	ALTERNATOR WIRING HARNESS	114	\$26.00
M-12259-M301	9MM IGNITION WIRE SET BLACK	107	\$48.95	M-15000-A961	CLOCK MASTERPIECE GAUGE	158	\$59.95
M-12259-M302	9MM IGNITION WIRE SET BLACK	107	\$48.95	M-15000-B961	CLOCK MASTERPIECE GAUGE	158	\$59.95
M-12259-M460	9MM IGNITION WIRE SET BLACK	107	\$48.95	M-15000-C961	CLOCK MASTERPIECE GUAGE	158	\$59.95
M-12259-R301	9MM IGNITION WIRE SET RED	107	\$48.95	M-15200-F200	FOCUS FOG LAMP KIT	182	\$199.99
M-12259-R302	9MM IGNITION WIRE SET RED	107	\$48.95	M-15200-HD	2000-03 HARLEY DAVIDSON FOG LAMPS	209	\$280.00
M-12259-R460	9MM IGNITION WIRE SET RED	107	\$48.95	M-15211-F	SVT FACIA HOOK UP KIT	187	\$54.95
M-12259-R462	4.6L 2V IGNITION WIRE SET RED	107	\$82.95	M-16015-RS	FOCUS RS FRONT FENDERS	182	\$549.00
M-12259-R464	4.6L 4V IGNITION WIRE SET RED	107	\$119.95	M-16450-F1	1996-03 F150 SUPER CREW STEP BARS	210	\$385.00
M-12259-R625	2.5L COUGAR IGNITION WIRE SET	107	\$45.95	M-16450-F2	1996-03 F150 CREW CAB STEP BARS	210	\$385.00
M-12259-R630	TAURUS 2001-03 3.0L 4V	107	\$22.00	M-16450-F3	1999-04 F250/350 SUPERCAB STEP BARS	210	\$385.00
M-12259-R634	TAURUS 1996-99 3.0L 4V	107	\$24.00	M-16450-F4	1999-04 F250/350, CREW CAB STEP BARS	210	\$389.00
M-12259-R725	COUGAR 2000 2.5L V6	107	\$31.00	M-16600-A	ZX3/ZX5 BLACK WING	186	\$329.00
M-12259-RF2	2.0L FOCUS WIRE SET RED	107	\$39.95	M-16600-B	ZX3/ZX5 POLISHED SS WING	186	\$329.00
M-12259-RZ2	ESCORT ZX2 IGNITION WIRE SET	107	\$39.95	M-16600-C	ZX3/ZX5 ALIMINUM WING	186	\$309.00
M-12259-T462	4.6L 2V F150 IGNITION WIRE SET	107	\$75.95	M-16600-R00	2000 COBRA R REAR WING	155	\$460.00
M-12259-Y301	9MM IGNITION WIRE SET YELLOW	107	\$48.95	M-16600-ZX3	FOCUS REAR SPOILER	186	\$159.95
M-12259-Y625	2.5L COUGAR IGNITION WIRE SET	107	\$27.00	M-16601-B	AIR DAM C BRACKET KIT	155	\$110.00
M-12259-YF2	2.0L FOCUS WIRE SET YELLOW	107	\$39.95	M-16601-F	AIR DAM HARDWARE KIT	155	\$42.00
M-12259-YZ2	ZX2 IGNITION WIRE SET YELLOW	107	\$39.95	M-16601-R00	2000 COBRA R FRONT AIR DAM	155	\$525.00
M-12259-Z2	2.0L ZX2 IGNITION WIRE SET BLUE	107	\$39.95	M-16602-A	WINDSTOP	123	\$199.00
M-12270-A302	DISTRIBUTOR HOLDDOWN CLAMP	124	\$7.95	M-16612-R00	2000 COBRA R HOOD	155	\$525.00
M-12297-B02	BLUE 2-WIRE DIVIDER (4 PACK)	106	\$6.00	M-16612-R58	1995 COBRA R HOOD	156	\$525.00
M-12297-B03	BLUE 3-WIRE DIVIDER (4 PACK)	106	\$6.25	M-16620-C	2000 COBRA R SEATS-CLOTH	156	\$2,599.00
M-12297-B04	BLUE 4-WIRE DIVIDER (4 PACK)	106	\$6.50	M-16620-R	FR500C RACE CAR SEAT	11	\$1,050.00
M-12297-B14	BLUE WIRE LOOM PAIR	106	\$8.95	M-16700-A	HOOD LATCH KIT	165	\$34.95
M-12297-L900	STREET ROD LOOM SET W/FORD	106	\$99.95	M-17080-T1733	3-TON JACK STANDS OTC	169	\$119.95
M-12297-L901	STREET ROD LOOM SET W/V-8	106	\$99.95	M-17080-T1739	3-TON QUICK LIFT JACK	169	\$599.95
M-12297-L902	STREET ROD LOOM SET PLAIN	106	\$65.95	M-17080-T1772	3-TON JACK STANDS	169	\$32.95

Part Number	Description	Pg. No.	Sugg. Retail	Part Number	Description	Pg. No.	Sugg. Retail
M-17360-A200	SVO RACING TACHOMETER	159	\$199.00	M-77100-L	WHITE FR T-SHIRT-L (PACK OF 12)	162	\$120.00
M-17360-A201	FORD RACING TACHOMETER	159	\$235.95	M-77100-M	WHITE FR T-SHIRT-M (PACK OF 12)	162	\$120.00
M-17360-A961	GOLD TACHOMETER	158	\$99.95	M-77100-XL	WHITE FR T-SHIRT-XL (PACK OF 12)	162	\$120.00
M-17360-B961	CHROME/WHITE TACHOMETER	158	\$99.95	M-77100-XXL	WHITE FR T SHIRT XXL (PACK OF 12)	162	\$132.00
M-17360-C961	CHROME/BLACK TACHOMETER	158	\$99.95	M-77101-L	NAVY FR T-SHIRT-L (PACK OF 12)	162	\$120.00
M-17361-A200	TACH DRIVER	159	\$69.95	M-77101-M	NAVY FR T-SHIRT-M (PACK OF 12)	162	\$120.00
M-17528-SC46	COBRA WINDSHIELD WIPERSET	154	\$42.95	M-77101-XL	NAVY FR T-SHIRT-XL (PACK OF 12)	162	\$120.00
M-17550-C200	2-5/8" 2X GAUGE CAGE	160	\$58.95	M-77101-XXL	NAVY FR T-SHIRT-XXL (PACK OF 12)	162	\$132.00
M-17550-C300	2-5/8" 3X GAUGE CAGE	160	\$58.95	M-77102-L	GRAY A/FR T-SHIRT-L (PACK OF 12)	162	\$120.00
M-17550-FR2	FOCUS 2X GAUGE POD	160	\$36.95	M-77102-M	GRAY A/FR T-SHIRT-M (PACK OF 12)	162	\$120.00
M-17553-ZX3	FOCUS INT WIPER SWITCH	185	\$22.95	M-77102-XL	GRAY A/FR T-SHIRT-XL (PACK OF 12)	162	\$120.00
M-17555-M200	1979-93 2' X 2' POD MUSTANG	160	\$36.95	M-77102-XXL	GRAY A/FR T-SHIRT-XXL (PACK OF 12)	162	\$132.00
M-17555-M201	1994-99 2' X 2' POD	160	\$36.95	M-77120-L	GRAY FR POLO-L (PACK OF 6)	162	\$144.00
M-17555-T200	1987-96 2' X 2' POD F-SERIES	160	\$36.95	M-77120-M	GRAY FR POLO-M (PACK OF 6)	162	\$144.00
M-17556-FR202	FOCUS 2X FULL PILLAR POD	160	\$64.95	M-77120-XL	GRAY FR POLO-XL (PACK OF 6)	162	\$144.00
M-17556-FR203	FOCUS 3X FULL PILLAR POD	160	\$69.95	M-77120-XXL	GRAY FR POLO-XXL (PACK OF 6)	162	\$150.00
M-17556-M200 M-17556-M201 M-17556-M350 M-17655-M200	1987-93 MUSTANG 2X FULL PILLAR 1994-99 MUSTANG 2X PILLAR POD 1987-93 MUSTANG 3X PILLAR POD 1994-02 MUSTANG DUAL DASH POD	160 160 160 160	\$69.95 \$69.95 \$69.95 \$69.95 \$69.95	M-77121-L M-77121-M M-77121-XL M-77121-XXL	RED FR POLO-L (PACK OF 6) RED FR POLO-M (PACK OF 6) RED FR POLO-XL (PACK OF 6) RED FR POLO-XXL (PACK OF 6)	162 162 162 162	\$144.00 \$144.00 \$144.00 \$150.00
M-17655-M300	1987-93 TACH POD MUSTANG	160	\$69.95	M-77122-L	BLUE FR POLO-L (PACK OF 6)	162	\$144.00
M-17682-SC46	COBRA FOLDAWAY MIRRORS	154	\$265.95	M-77122-M	BLUE FR POLO-M (PACK OF 6)	162	\$144.00
M-17831-F	SVT FOCUS FRONT FASCIA	187	\$399.00	M-77122-XL	BLUE FR POLO-XL (PACK OF 6)	162	\$144.00
M-17833-F	SVT FOCUS ROCKER KIT	187	\$239.95	M-77122-XXL	BLUE FR POLO-XXL (PACK OF 6)	162	\$150.00
M-17835-F	SVT FOCUS REAR FASCIA	187	\$325.00	M-77150-L	FR GRAY SWEATSHIRT-L (PACK OF 6)	163	\$174.00
M-17835-F1	SVT FOCUS CENTER EXH INSERT	177	\$175.95	M-77150-M	FR GRAY SWEATSHIRT-M (PACK OF 6)	163	\$174.00
M-17835-SC46	2003 COBRA REAR FASCIA	153	\$275.00	M-77150-XL	FR GRAY SWEATSHIRT-XL (PACK OF 6)	163	\$174.00
M-17839-RS	FOCUS RS REAR WING	186	\$295.00	M-77150-XXL	FR GRAY SWEATSHIRT-XXL (PACK OF 6)	163	\$174.00
M-17839-SVT	SVT FOCUS REAR SPOILER	187	\$179.95	M-77200-L	FR WINDBREAKER-L (PACK OF 3)	163	\$174.00
M-17957-SC46	2003 COBRA FRT FASCIA KIT	153	\$460.00	M-77200-M	FR WINDBREAKER-M (PACK OF 3)	163	\$174.00
M-18000-A	2005 MUST DAMPER KIT	14	\$415.00	M-77200-XL	FR WINDBREAKER-XL (PACK OF 3)	163	\$174.00
M-18000-Z2	ZX2-R STRUT (SET OF 4)	179	\$175.95	M-77200-XL	FR WINDBREAKER-XXL (PACK OF 3)	163	\$174.00
M-18000-ZX3 M-18112-A M-18120-R M-18120-Z3	FOCUS SVT DAMPER KIT QUAD SHOCKS LH/RH DYNAMIC DAMPERS FOCUS SHOCK KIT	180 203 11 179	\$195.00 \$105.00 \$5,999.00 \$475.95	M-77201-L M-77201-M M-77201-XL M-77201-XXL	FR BLUE TWILL JACKET-L (PACK OF 1) FR BLUE TWILL JACKET-M (PACK OF 1) FR BLUE TWILL JACKET-XL (PACK OF 1) FR BLUE TWILL JACKET-XXL (PACK OF 1)	163 163 163 163	\$125.00 \$125.00 \$125.00 \$125.00 \$125.00
M-18124-SVT3	2003 LIGHTNING FRONT SHOCKS	203	\$115.00	M-77501	FR FLAMES CAP (PACK OF 24)	162	\$336.00
M-18125-R	RANGER FX4 REAR SHOCKS	203	\$120.00	M-77502	FR CHECKERBOARD CAP (PACK OF 24)	162	\$336.00
M-18125-SVT3	LIGHTNING REAR SHOCKS 2003	203	\$115.00	M-77503	FR NAVY BASEBALL CAP (PACK OF 24)	162	\$264.00
M-18183-R	GRAND AM CAMBER PLATES	11	\$502.00	M-77504	STONE BASEBALL CAP (PACK OF 24)	163	\$264.00
M-18183-S1	STRUT MOUNT 1979-89 (PR)	146	\$179.95	M-77505	FR STRIPE BASEBALL CAP (PACK OF 24)	163	\$288.00
M-18183-S2	STRUT MOUNT 1990-93 (PR)	146	\$179.95	M-77506	FR VISOR (PACK OF 24)	163	\$275.00
M-18183-S3	STRUT MOUNT 1994-04 (PR)	146	\$179.95	M-77600	FR UMBRELLA (PACK OF 12)	163	\$264.00
M-18183-Z2	ZX2-R CAMBER BOLT KIT	180	\$69.00	M-77601	FR SS MUG (PACK OF 25)	163	\$396.00
M-19009-A341	CRANK DAMPER SPACER	81	\$25.00	M-77602-A	BAR STOOL FR BLACK (PACK OF 1)	163	\$90.00
M-19017-A961	5-GAUGE KIT GOLD	158	\$265.00	M-77602-B	BAR STOOL W/BACK FR BLACK (PACK OF 1)	163	\$135.00
M-19017-B961	5-GAUGE KIT CHROME/WHITE	158	\$265.00	M-80000-A	MINDSHAPER-FULL COURSE	6	\$129.95
M-19017-C961	5-GAUGE KIT CHROME/BLACK	158	\$265.00	M-80000-B	MINDSHAPER-INTRO COURSE	6	\$29.95
M-19061-T7575	FORD RADIO REMOVAL TOOL	169	\$5.95	M-607100-R197	S197 MUSTANG CAGED BIW	11	\$15,995.00
M-19216-A50	1994-95 5.0L A/C DELETE KIT	93	\$60.00	M-1606024-HDF3	Harley-Davidson Front Console Cover	206	\$175.00
M-19216-D46	1996-04 4.6L A/C DELETE KIT	49	\$48.95	M-1620000-HDDR	Harly-Davidson Stripe Kit Dark Red	211	\$285.00
M-19515-A	HIGHWAY SAFETY KIT	165	\$455.00	M-1620000-HD0	Harley-Davidson Stripe Kit Orange	211	\$279.00
M-19520-B	ZINC DIE CAST HITCH CAP	209	\$23.00	M-1620001-BL	MUSTANG BLUE STRIPES	16	\$360.00
M-19520-F	HITCH CAP ALUM FORD	209	\$36.00	M-1620001-BLK	MUSTANG BLACK STRIPES	16	\$360.00
M-19520-G	HITCH CAP ALUM FORD RACING	209	\$39.00	M-1620001-FRBK	FR MUSTANG BLACK STRIPES	16	\$360.00
M-19546-A12	FRICTION MODIFIER (CASE OF 12)	140	\$42.00	M-1620001-FRBL	FR MUSTANG STRIPES	16	\$360.00
M-19579-A12	CAM LUBE-CASE OF 12	84	\$60.00	M-1620001-FRSL	FR SILVER MUSTANG STRIPES	16	\$360.00
M-19623-T7238	A/C LINE DISCONNECT TOOL	169	\$29.95	M-1620001-SL	MUSTANG SILVER STRIPES	16	\$360.00
M-20000-D100	FORD OVAL DECAL 3.5" (12 PKG)	164	\$9.50	M-6327936-SC46	COBRA QUARTER SCOOP KIT	154	\$69.95
M-20000-D101	FORD OVAL DECAL 5.5" (12 PKG)	164	\$11.50	M-6327938-SC46	COBRA QTR SCOOP INSERTS	154	\$21.95
M-20000-D102 M-20000-D103 M-20000-D104 M-20201-A50	FORD OVAL DECAL 8.5" (12 PKG) FORD OVAL DECAL 13.5" (8 PKG) FORD OVAL DECAL 21.5" (4 PKG) STRUT TOWER BRACE 1979-93	164 164 164 147	\$13.50 \$18.00 \$20.00 \$129.95	M-6360004-GT	SEAT COVER	9	\$245.00
M-20201-A51 M-20201-D46 M-20201-E46 M-20201-M46	STRUT TOWER BRACE 1994-95 STRUT TOWER BRACE STRUT TOWER BRACE STRUT TOWER BRACE	147 147 147 147 147	\$129.95 \$99.00 \$129.95 \$129.95				
M-20201-S197 M-20201-ZX3 M-27846-RS M-61108-R	STRUT TOWER BRACE FOCUS STRUT TOWER BRACE FOCUS RS REAR QTR PANELS SAFETY HARNESS 6 PT	147 181 182 11	\$195.00 \$99.95 \$699.00 \$350.00				



# GENERAL INFORMATION AND TECHNICAL ASSISTANCE

Ford Racing Performance Parts are available through Ford and Lincoln-Mercury dealers and selected independent automotive specialty/ performance outlets.

Ford Racing suggested list prices are listed on pages 231-240 of this catalog.

Ford Motor Company reserves the right to change, without notice or obligation, its products, prices, specifications and materials.

#### GENERAL INQUIRIES AND TECHNICAL QUESTIONS ON PRODUCTS SHOULD BE ADDRESSED TO:

Ford Racing Performance Parts 44050 N. Groesbeck Highway Clinton Township, MI 48036-1108

For official Ford Motor Company Shop Manuals and wiring diagrams, call Helm Publications at 1-800-782-4356.

## TECHNICAL ASSISTANCE "HOT LINE" Telephone (586) 468-1356

When you need fast, reliable, up-to-date information about Ford Racing Performance Parts equipment, call the Ford Racing Tech "Hot Line." You'll reach staff with a huge database of specifications and automotive know-how. The staff includes long-time racers and performance experts with many years of hands-on Ford experience and the database includes everything from the Ford Racing Performance Parts parts catalog to an extensive library of high-performance reference materials. You can call the Tech "Hot Line" with questions about Ford Racing Performance Parts at (586) 468-1356 from 10:00 a.m. to 6:00 p.m. Eastern Standard Time. If you need more in-depth information, write to Ford Racing Performance Parts.

For correct assistance, be sure to include the following information:

- Name and address
- Day and evening phone number
- Year/make/model of vehicle
- Original factory engine CID, transmission type and axle ratio
- Proposed modification changes

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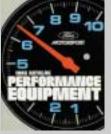




























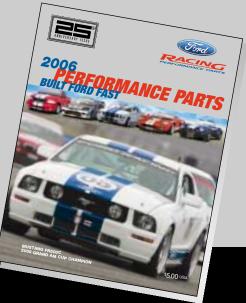












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