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2008 Pontiac G8 | G8 Service Manual | Driveline/Axle | Rear Drive Axle | Repair Instructions |

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Rear Axle Disassemble

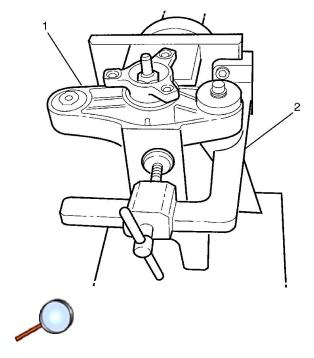
Tools Required

- E-308 Seal Remover.
- 205-116 Carrier Bearing Puller Including Plug.
- <u>DT-48805</u> Pinion Tail Bearing Cup Remover.
- DT-48725 Pinion Head Bearing Cup Removal Kit.
- DT-48726 Pinion Head Bearing Cup Remover.

Caution: Refer to <u>Safety Glasses Caution</u> in the Preface section.

Caution: Refer to <u>Vehicle Lifting Caution</u> in the Preface section.

- 1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle.
- 2. Drain the differential fluid. Refer to the draining procedure in Differential Oil Replacement .
- 3. Remove the differential from the vehicle. Refer to Differential Replacement .

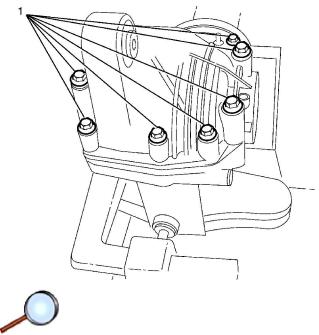


Important: The holding device must be able to rotate.

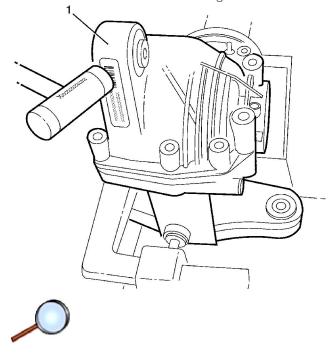
4. Mount the differential assembly (1) to a suitable holding device (2).

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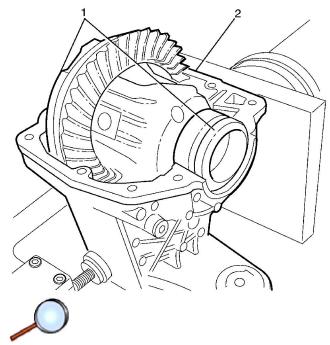
5. Remove the differential housing cover to differential housing retaining bolts (1).



Important: Use a soft faced hammer to aid in separating the differential housing cover from the rear differential housing (1).

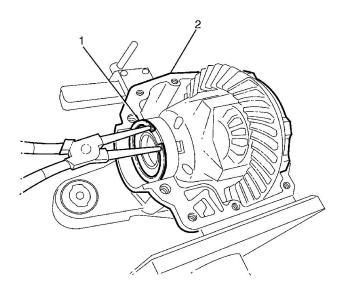
6. Remove the rear differential housing cover (1).

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7. Remove the left and right axle shaft seals (1) from the differential (2).

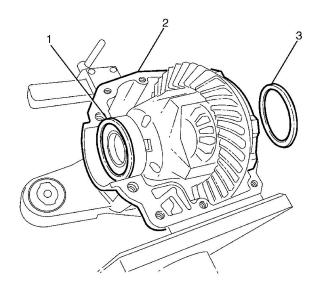
Discard the axle shaft seals.





8. Remove the circlip (1) from the differential (2).

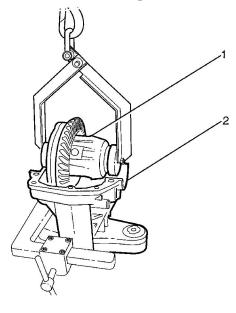
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Important: Mark the left shim (3) and right shim (1) before removing for correct refitting.

9. Remove the left shim (3) and right shim (1) from the differential (2).





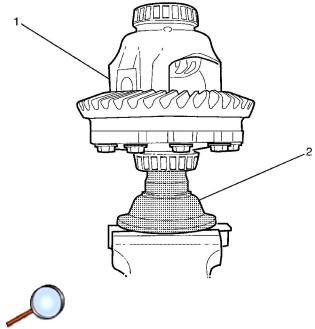
Important: Remove the differential (1) using a suitable tool or with the aid of an assistant.

10. Remove the differential (1) from the differential housing (2).

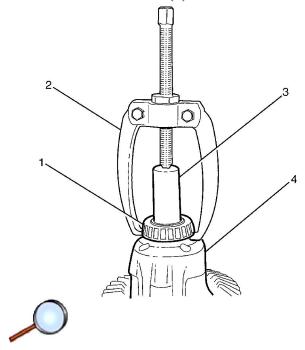
Important: Place a suitable container to catch remaining differential fluid.

11. Allow remaining differential fluid to drain.

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12. Position the differential (1) onto a suitable holding device (2).



Important: Use a suitable puller (2) and 205-116 (3) to remove the right bearing (1).

13. Remove the right bearing (1) from the differential (4).Discard the right bearing.

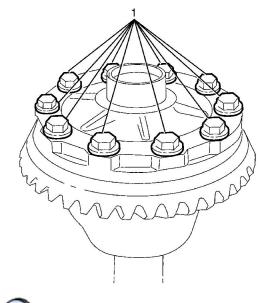
14. Turn the differential (4) over on the holding tool with the aid of an assistant.

Important: Use a suitable puller (2) and 205-116 (3) to remove the left bearing.

15. Remove the left bearing from the differential (4).

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Discard the left bearing.





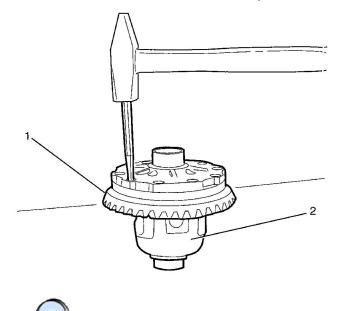
16. Remove the ring gear to differential retaining bolts (1).

Discard ring gear to differential retaining bolts.

17. Remove the differential from the holding device.

Important: Make sure there is soft material between the differential and the bench top.

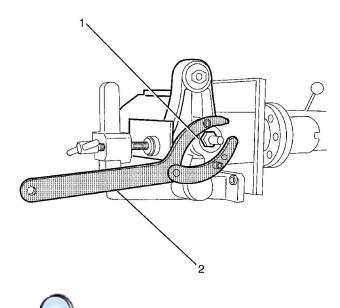
18. Place the differential onto a bench top.



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Important: Use suitable tools or a suitable press to remove the ring gear (1) from the differential (2). Take care not to damage the ring gear retaining bolt hole threads.

19. Remove the ring gear (1) from the differential (2).



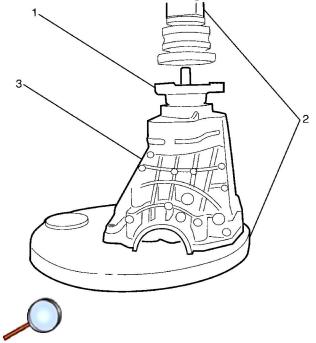
20. Install the universal holding tool (2) to the pinion flange (1).

Important: Hold the pinion flange with universal holding tool (2).

21. Remove the pinion flange to prevailing torque pinion flange retaining nut (1).

Discard the prevailing torque pinion flange retaining nut.

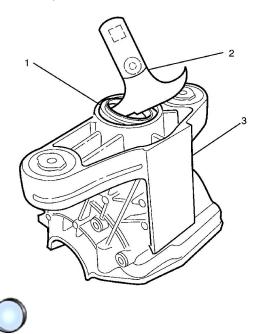
22. Remove the universal holding tool (2) from the pinion flange (1).



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Important: The pinion flange (1) can be removed with a suitable puller or with a press (2). Support the pinion or place a soft cloth under the pinion to prevent damage when removing.

- 23. Remove the pinion flange (1) from the differential housing (3).
- 24. Remove the pinion from the differential housing (3).



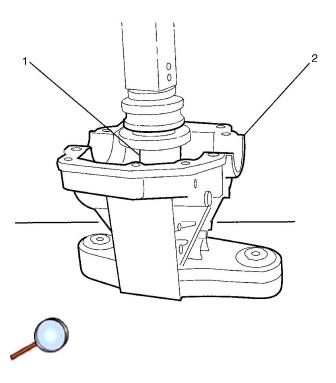
Important: Do not damage any sealing surfaces when removing the axle shaft oil seal (1). Cuts or abrasions will damage the assembly and result in lubricant leakage from this area.

- 25. Using a <u>E-308</u> (2), remove the pinion flange oil seal (1) from the differential housing (3).

 Discard the pinion flange oil seal.
- 26. Remove the tail bearing from the differential housing (3).

Discard the tail bearing.

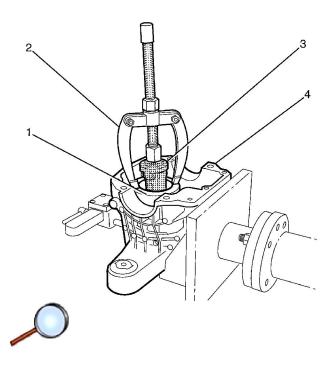
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Important: Use a suitable press and <u>DT-48805</u> to remove the tail bearing cup.

- 27. Position the <u>DT-48805</u> (1) to the differential housing (2) and press out the tail bearing cup.
- 28. Remove the tail bearing cup from the differential housing (2).

Discard the tail bearing cup.



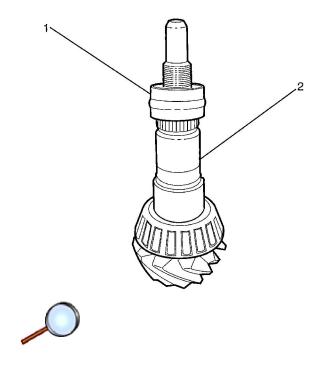
Important: Use DT-48725 (1, 2) and DT-48726 (3) to remove the head bearing cup.

29. Position DT-48726 (3) to the differential housing (4) and pull out the head bearing cup.

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30. Remove the head bearing cup from the differential housing (4).

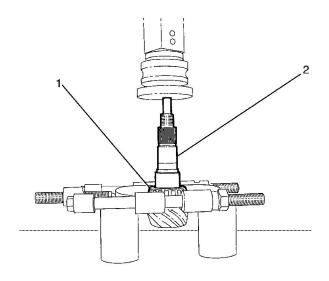
Discard the head bearing cup.



Important: Do not reuse the collapsible spacer (1).

31. Remove the collapsible spacer (1) from the pinion gear (2).

Discard the collapsible spacer.





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Important: Use a suitable press and press plates to remove the pinion head bearing (1).

32. Remove the pinion head bearing (1) from the pinion gear (2).

Discard the pinion head bearing.

- 33. Remove the pinion shim from the pinion gear (2).
- 34. Clean loctite from the pinion gear thread.