Rear Differential Hydraulic System Service Fill/Bleed

Rear Differential Hydraulic System Service Fill/Bleed Procedure

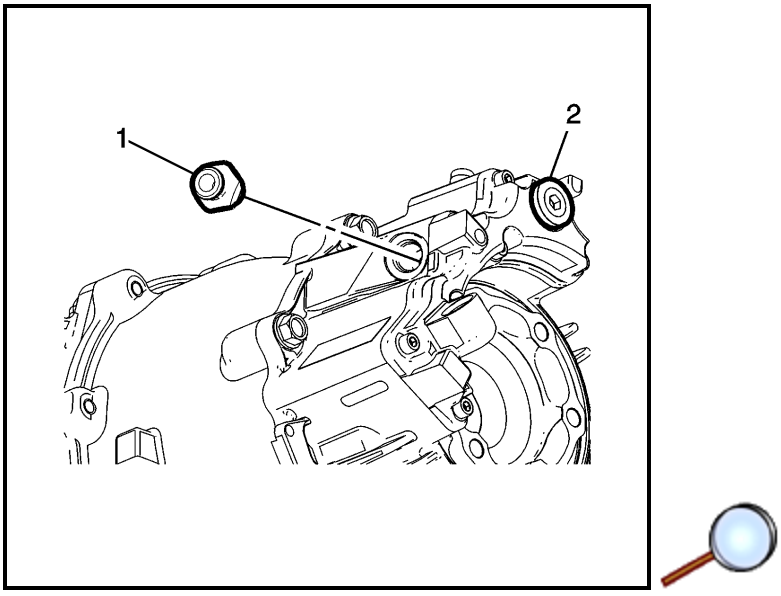
The rear differential hydraulic system service bleed is used to remove air from the system, check for proper system and solenoid function, and determine if full pressure can be achieved at the apply piston. Any time a rear differential hydraulic line is disconnected or any repairs are made, this procedure must be performed.

Special Tools

DT-51381 Limited Slip Differential Clutch Pipe Connector

For equivalent regional tools, refer to Special Tools.

1. Connect scan tool and check the rear differential clutch control module for any DTCs and perform repairs as necessary. The scan tool may not allow the hydraulic system service fill/bleed if certain DTCs are present.
2. Raise vehicle. Refer to Lifting and Jacking the Vehicle.
3. Remove the right rear tire and wheel assembly. Refer to Tire and Wheel Removal and Installation.



4. Disconnect high pressure line on the clutch pack (1). Refer to Limited Slip Differential Clutch Pipe Connector Disconnection and Connection
5. Attach *DT-51381* connector to the high pressure line. Lead the high pressure line to a drain pan.
6. Remove the fill plug (2). Refer to Differential Clutch Oil Inspection
7. Top off Rear Drive Clutch fill hole with the appropriate fluid. Refer to Adhesives, Fluids, Lubricants, and Sealers

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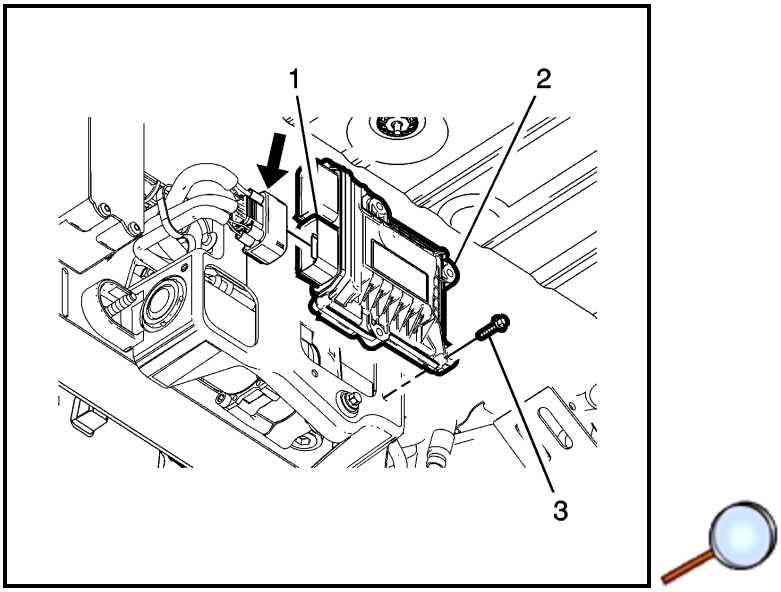

8. Disconnect the X1 connector at the Rear Differential Clutch Control Module (1).

   Warning: While engine is operating, the exhaust system will become extremely hot. To prevent burns avoid contacting a hot exhaust system.
9. Start engine.
10. Reconnect the X1 connector at the Rear Differential Clutch Control Module.
11. From the scan tool menu, select Rear Differential Clutch Control Module, then select Control Functions, then Rear Differential Hydraulic Line Fill.
12. Verify that fluid comes out of the high pressure line through the *DT-51381* connector three times during the Rear Differential Hydraulic Line Fill procedure.

    Note: This is a visual check that will tell if the procedure was done correctly. If fluid does not come out of the high pressure line three times, verify there are no internal/external leaks, valve stuck, or the motor seized before proceeding to the next step.
13. Top off Rear Drive Clutch fill hole again with appropriate fluid and repeat Rear Differential Hydraulic Line Fill with scan tool once more.
14. Turn engine off.
15. Remove *DT-51381* connector. Reattach high pressure line to clutch pack.
16. Top off Rear Drive Clutch fill hole again with appropriate fluid. Install fill plug
17. Install the left rear tire and wheel assembly. Refer to Tire and Wheel Removal and Installation
18. Lower vehicle back down.
19. Restart engine.

    Note: The Rear Differential Clutch Control Module can run this procedure up to 3 attempts to get a Pass. If this step does not pass, repeat procedure from step 2.

    Note: Status will change to “Complete” when done.
20. From the scan tool menu, select Rear Differential Clutch Control Module, then select Control Functions, then Rear Differential Hydraulic System Service Bleed.

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