

Geared Hub - Fluid Check and Replacement

Description

Fluid Level should be checked (“A” Service)
 Hub should be checked for leaks (“A” Service)
 Fluid should be replaced as needed
 Fluid should be replaced at 12,000 miles

Related Tasks

Refer to “Per Wheel Checklist”

Tools and Supplies

Oil Drain Pan
 1” Socket or Wrench
 5/16” Hex Key
 Torque Wrench

Special Tools

Gear oil dispenser

Fluids Required

Type	Specification	Quantity
Gear Oil	80W-90	½ Qt

Fasteners

Fastener	Wrench Size	Loctite	Torque	Notes / Special Tools
Fill Plug	1”	-	8-13 lb ft	Nylon gasket
Drain Plug	5/16” hex key	PST	8-13 lb ft	Magnet; Pipe thread – do not over-tighten
Access Cover Bolts	½”	Blue	15 lb ft	
Input Seal Plate Bolts	9/16”	Blue	30 lb ft	
Steering Cover Bolts	¾”	Blue	65 lb ft	

Notes / Special Instructions

- If the hex key is not fully inserted into the drain plug, the plug may be damaged.
- PST not required on fill plug (uses gasket instead).
- Gear Oil at the CTIS hole in the center of the spindle indicates a possible spindle seal leak. This may also result in air leakage.
- Although more difficult, it is possible to check the fluid level of the hub without removing the tire/wheel assembly.
- Replacing the Geared Hub fluid is not on the AMG service schedule (after the first 12,000 miles) but should probably be done every 12,000 miles (with the “C” Service).

TECH TIP BY DAVE BREGGIN

This is an excerpt from Dave Breggin's CD on HUMMER maintenance. It is available for purchase at www.bluehummer.com

Procedure

Check Fluid Level

1. Remove Fill Plug.
 - Fill and Drain Plug locations shown in Illustration 1.
 - Clean area around fill plug before removing.
2. Check fluid.
 - Fluid should be at or just below the bottom of the fill plug hole.
 - Fluid should not be black or gritty.
 - If fluid is low, check for leaks.
 - If fluid is high, check for water or ATF contamination.
3. Clean and install fill plug
 - Check fill plug gasket – replace if damaged.

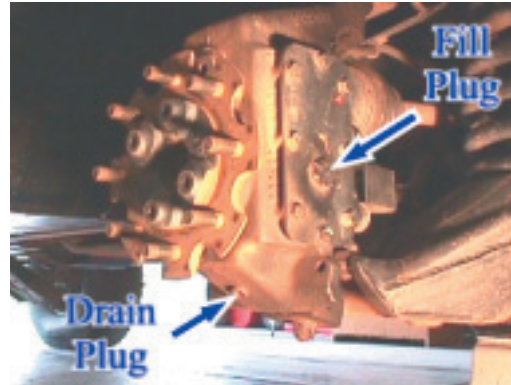


Illustration 1 – Fill and Drain Plugs

Check Hub for Leaks

1. Hub should be checked for signs of leaking at the following locations:
 - Spindle Seal (the spindle is the part with the wheel lugs)
 - Half Shaft Retaining Bolt Access Cover (above spindle)
 - Half Shaft Seal
 - Fill and Drain Plugs
 - CTIS hose fitting
 - Cover and Access Plates
 - Vent Line Fitting
 - Gear Oil dripping from CTIS hole in spindle (small amount of water is normal)

Check Hub Spindle

1. Check Hub Spindle Bearing.
 - Spindle should rotate easily (to the extent that the driveline lash allows).
 - Spindle should not move side-to-side.
 - Spindle should not move in-and-out.
2. Check Wheel Studs.
 - Wheel Studs should be securely attached.
 - Wheel Studs should not be cracked, bent, or damaged.
 - Wheel Stud Threads should be in good condition.

Replace Fluid

1. Check Fluid Level (leave fill plug out).
2. Remove Drain Plug.
 - Fill and Drain Plug locations shown in Illustration 1.
 - Clean area around drain plug before removing.
 - Position drain pan below hub before removing plug.
 - Make sure hex key is fully inserted into drain plug. Clean with a pick if necessary.
 - Check magnet in drain plug for metal pieces or excessive sludge.
3. Allow fluid to drain, and check fluid for contamination.
 - Water contamination may indicate a seal leak or a vent line failure.
 - ATF contamination may indicate the “Vampire” – refer to special section.
4. Clean the drain plug, apply Loctite PST, and re-install.
5. Fill Hub with gear oil.
 - Correct level is at bottom of fill plug hole.
6. Clean and install fill plug
 - Check fill plug gasket – replace if damaged.