

# DIFFERENTIAL - FLUID CHECK AND CHANGE

## Differential – Fluid Check and Change

### Description

Fluid Level should be checked (“A” Service)  
 Differential should be checked for leaks (“A” Service)  
 Fluid should be added as needed to maintain correct level  
 Fluid should be replaced as needed  
 Fluid should be replaced at 12,000 miles.

### Related Tasks

Check Brakes.  
 Check Halfshaft Bolts.

### Tools and Supplies

Oil Drain Pan  
 Torque Wrench  
 Medium Socket Extension

### Special Tools

3/8” Hex Key Socket  
 Gear oil dispenser or pump

### Fluids Required

Type	Specification	Quantity
Differential Oil	80W-90	2 qt.

### Fasteners

Fastener	Wrench Size	Loctite	Torque	Notes / Special Tools
Fill and Drain Plug	3/8” Hex Key	PST	13 - 18 lb ft	Pipe thread – do not over-tighten.
Cover Bolts	1/2”	-	16 lb ft	
Differential Mounting Bolts	15/16”	Blue	110 - 140 lb ft	
Output Flange Nut	1-1/8”	Blue	166 - 196 lb ft	Use Blue RTV on inner Seal
U-joint to Pinion Yoke	5/16”	-	13 - 18 lb ft	1/4” fine thread
	3/8”	-	27 lb ft	5/16” fine thread

### Notes / Special Instructions

- Drain Plug has a magnet.
- Driveline Protection does not need to be removed for these procedures.
- Replacing the Differential 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).

## Procedure

### Check Fluid Level

1. Remove Fill Plug
  - Fill plug is located on the front of the Front Differential, and on the rear of the Rear Differential.
  - Clean the area around the fill plug before removing.
  - Make sure the Hex Key is fully inserted into the fill plug. Clean the hole with a pick if necessary.
2. Check Fluid Level.
  - 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.
  - Clean thread area.
  - Apply Loctite PST.
  - Do not over-tighten.

### Check for Leaks

The Differential has 5 seals, as described in the first 3 steps below.

1. Input shaft seal.
  - Drips or wetness on the Differential housing near the drive shaft.
2. Output shaft inner seal (2).
  - Wetness on either side of the brake rotor and/or the half-shaft flange.
3. Output shaft outer seal (2).
  - Drips or wetness on the Differential housing near the brake rotor.
4. Check the Drain Plug for signs of leaking.
5. Check the Fill Plug for signs of leaking.
6. Check the cover for signs of leaking.

### Replace Fluid

1. Check Fluid Level (leave fill plug out).
2. Remove Drain Plug.
  - Drain plug is located in the bottom of the Differential.
  - Clean the area around the drain plug before removing.
  - Position the drain pan below the drain plug.
  - Make sure the hex key is fully inserted into the drain plug. Clean with a pick if necessary.
  - Check the drain plug magnet for metal pieces or excessive sludge.
3. Allow fluid to drain and check for contamination.
  - Water contamination may indicate a seal leak or vent line failure.
  - ATF contamination may indicate the “Vampire” – refer to special section.
4. Clean and install Drain Plug.
  - Clean Magnet.
  - Clean thread area.
  - Apply Loctite PST.
  - Do not over-tighten.
5. Fill Differential with gear oil.
  - Correct level is at bottom of fill hole.
6. Clean and install Fill Plug.
  - Refer to Check Fluid Level above.

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