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Service Information Bulletin

SUBJECT	DATE
Cooling System	August 2013

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0080	DD Platform	Inspecting and Flushing the Cooling System	Updated section title from Monitoring the Cooling System. Deleted drain and fill instructions, replaced with links.
DDC-SVC-MAN-0081		Removal of the Coolant Filter	Added Links
DDC-SVC-MAN-0081		Installation of the Coolant Filter	



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2 Inspecting and Flushing the Cooling System

The cooling system must be full for proper operation of the engine.

**WARNING: HOT COOLANT**

To avoid scalding from the expulsion of hot coolant, never remove the cooling system pressure cap while the engine is at operating temperature. Wear adequate protective clothing (face shield, rubber gloves, apron, and boots). Remove the cap slowly to relieve pressure.

Check the coolant level daily and maintain it between the full and low marks on the surge tank. Add coolant as required, but do not overfill.

Make a daily visual check for cooling system leaks. Look for an accumulation of coolant when the engine is running and when it is stopped. Coolant leaks may be more apparent on an engine when it is cold.

The inhibitors in antifreeze solutions must be replenished with an approved corrosion inhibitor supplement when indicated by testing the coolant.

NOTICE: Coolant must be inhibited with the recommended Supplemental Coolant Additives (SCAs) listed in this guide. Failure to check and maintain SCA levels at required concentrations will result in severe damage (corrosion) to the engine cooling system and related components.

The cooling system is protected by an SCA element. In addition, the engine can be equipped with a coolant filter/inhibitor system as an installed option or as an after-sale item.

A coolant system properly maintained and protected with supplemental coolant inhibitors can be operated up to the intervals listed. At these intervals the coolant must be drained and disposed of in an environmentally responsible manner according to state and/or federal (EPA) recommendations.

Install a new cooling system filter at intervals defined in the Maintenance Intervals.

The DD Platform engine is equipped with a coolant filter. The coolant filter contains supplemental corrosion inhibitors.

Service the cooling system as follows:

1. Check the filter housings for signs of leakage.
2. Inspect the coolant in the surge tank for signs of contamination.
3. Is the cooling system contaminated?
 - a. Yes; Go to step 4.
 - b. No; ensure the coolant level is correct and release the vehicle.
4. Drain the cooling system. Refer to section "Cooling System Drain Procedure".
5. Remove the coolant filter. Refer to section "Removal of the Coolant Filter".
6. Does the coolant filter have a build up of gel or white residue?
 - a. Yes; Refer to [13TS-19](#).
 - b. No; Go to step 7.
7. Refill with soft, clean water and a cleaning system compound.

Table 1.

Coolant Type	Part Number	Description
On-Line Cleaner	200164	One Half -Gallon Jug -6 Per Case
	200105	5-Gallon Pail
	200155	55-Gallon Drum

**WARNING: ENGINE EXHAUST**

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

**WARNING: PERSONAL INJURY**

To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.

8. Start the engine and operate it for 15 minutes after the thermostat has opened to thoroughly circulate the water.
9. Stop the engine and allow it to cool. Drain the unit completely.

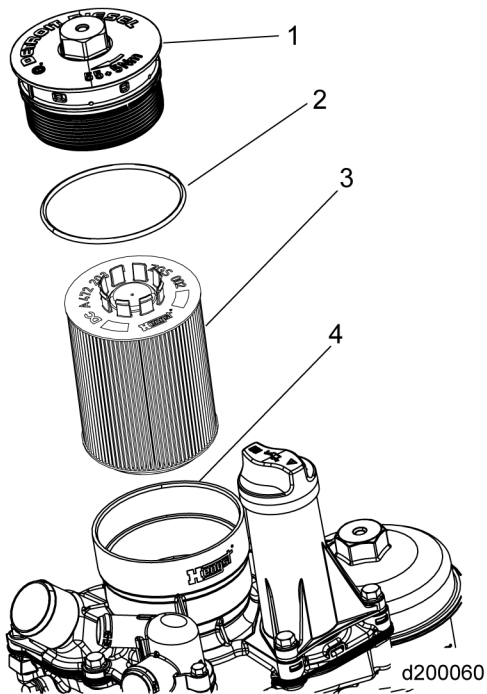
NOTICE: If the engine is hot, fill slowly to prevent rapid cooling and distortion of the engine castings.

10. Refill the cooling system slowly with clean water, start the engine and operate for 15 minutes after the thermostats have opened.
11. Stop the engine and allow it to cool.
12. With engine cool, drain the cleaner residue from the cooling system.
13. Install the coolant filter. Refer to section "Installation of the Coolant Filter".
14. Fill the cooling system. Refer to section "Cooling System Fill Procedure".

3 Removal of the Coolant Filter

Remove as follows:

1. Drain the cooling system. Refer to section "Cooling System Drain Procedure".
2. Using a 36 mm wrench, remove the cap (1) from the oil coolant module (4).

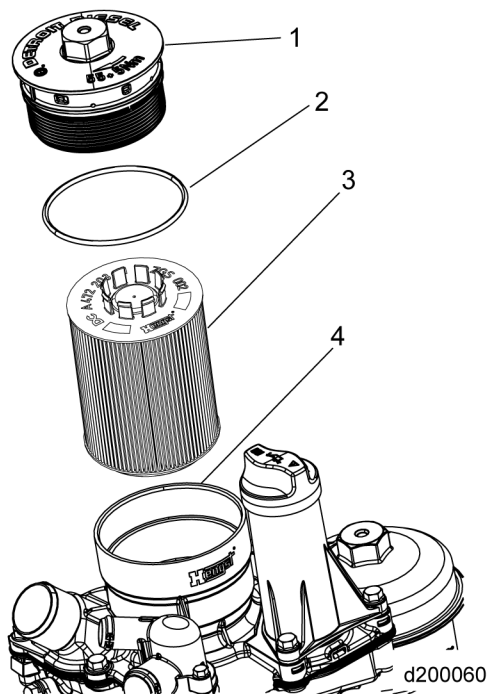


3. Pull the coolant filter (3) out of the oil coolant module.
4. Discard the O-ring (2) in the cap.

4 Installation of the Coolant Filter

Install as follows:

1. Install a new O-ring (2) onto the cap.
2. Lubricate the O-ring with clean engine coolant.



3. Install a new coolant filter (3) into the cap (1).
4. Install coolant filter and cap into the oil coolant module (4). Torque cap to 55 to 60 N•m (41 to 44 lb•ft).
5. Fill the cooling system. Refer to section "Cooling System Fill Procedure".