DIESEL

NOISE

NOTE: It is normal for fan noise to be louder (roaring) when:

- Fan duty cycle high. This may occur when ambient (outside air temperature) is very high.
- Engine loads and temperatures are high such as when towing a trailer.
- Operating conditions where transmission temperatures may be high
- Cool silicone fluid within the fan drive unit is being redistributed back to its normal disengaged (warm) position. This can occur during the first 15 seconds to one minute after engine start-up on a cold engine.

LEAKS

Viscous fan drive operation is not affected by small oil stains near the drive bearing. If leakage appears excessive, replace the fan drive unit.

ELECTRONICALLY CONTROLLED VISCOUS DRIVE - DIESEL

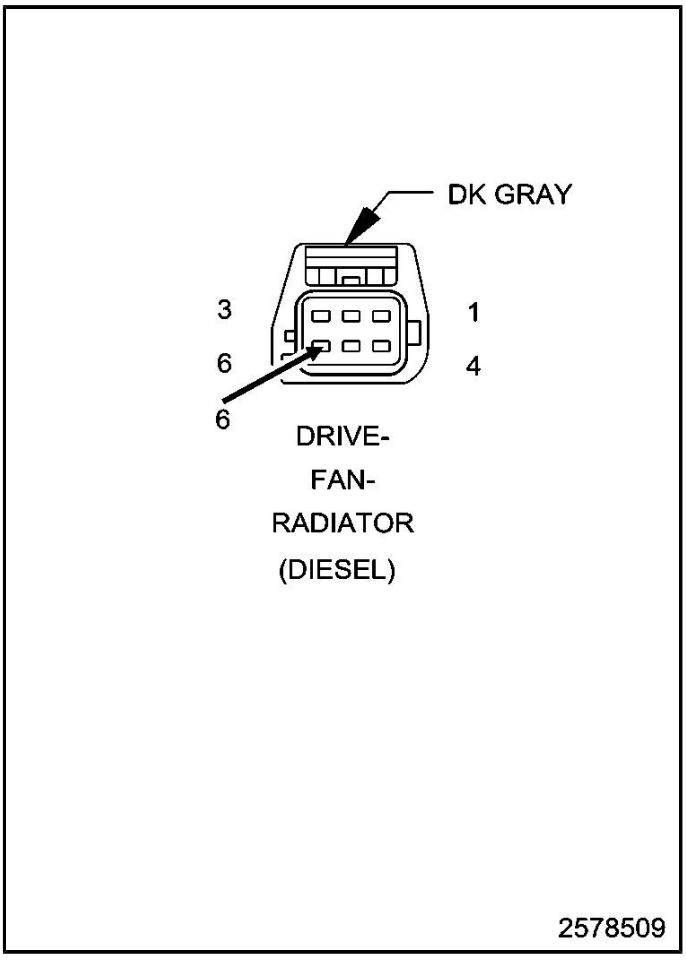
If the fan assembly does not free-wheel and a metallic grinding sound exists, replace the electronically controlled fan drive (Refer to 07 - Cooling/Engine/FAN, Cooling - Removal).

NOTE: The following test may take up to 15 minutes to perform.

The engine should be at normal operating temperature.

1. Set the parking brake and verify the transmission is in park or neutral.
2. Set air conditioner (if equipped) and blower fan to OFF.
3. Start and allow engine to reach normal operating temperatures.
4. Stop engine, connect the scan tool and select appropriate model year and engine option.
5. Check for and correct existing DTC's
6. Locate the electronically controlled viscous fan drive connector on the fan shroud.

WARNING: A spark may occur when the connection to battery is made. Be sure there are no combustible materials near the



area where this procedure is being performed.

7. Using a jumper wire, backprobe pin 6 of the viscous fan drive connector to battery positive.

   NOTE: The fan drive control coil is energized to 12 volts at this time.

8. Using the scan tool, confirm that DTC 0480 is set to verify a good connection at the cooling fan harness connector.
9. Start the engine.
10. Actuate engine speed to 2000 RPM.
11. Go to the SENSOR screen and observe the fan speed.
12. Run the engine at 2000 RPM until the fan speed increases to 1850 RPM or more for 30 seconds.

    NOTE: Fan RPM may ramp up slowly.

    NOTE: It maybe take 15 minutes before fan speed increases.

13. The fan speed should be in accordance to the table below.
14. If fan speed does not increase, make sure that the jumper wire has a good connection. If so replace the electronically control viscous fan drive.
15. If the fan speed does increase and there is still a concern, refer to the appropriate Engine Electrical Diagnosis Section to diagnosis the electronically controlled viscous fan drive control circuit.

ELECTRONICALLY CONTROLLED VISCOUS FAN DRIVE SPEEDS	
ENGINE RPM	**FAN RPM (Min)**
1000	950
1500	1420
2000	1850
2500	2230