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Service Information Bulletin

SUBJECT	DATE
Air Compressor Coolant Lines	May 2015

Additions, Revisions, or Updates

Publication Number / Title	Platform	Section Title	Change
DDC-SVC-MAN-0081 DDC-SVC-MAN-0181	DD Platform EuroIV DD Platform	Removal of the Air Compressor Coolant Supply Line	These are all new sections.
		Installation of the Air Compressor Coolant Supply Line	
		Removal of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module)	
		Installation of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module)	
		Removal of the Air Compressor Coolant Return Line (Fuel Filter Module to Oil Filter Module)	
		Installation of the Air Compressor Coolant Return Line (Fuel Filter Module to Oil Filter Module)	
		Removal of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module and Oil Coolant Module)	
		Installation of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module and Oil Coolant Module)	



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2 Removal of the Air Compressor Coolant Supply Line

NOTE: This procedure applies to the coolant line that supplies engine coolant from the cylinder block to the air compressor.

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Disconnect the batteries. Refer to the OEM procedure.
3. Open the hood.
4. If necessary, remove the bumper for access. Refer to the OEM procedure.
5. If necessary, remove the side fairing and inner fender for access. Refer to the OEM procedures.
6. Drain the cooling system. Refer to section "Cooling System Drain Procedure".
7. If necessary, remove the power steering pump for access. Refer to the OEM procedure.
8. Remove any applicable OEM brackets and cable ties that may interfere with coolant line removal. Refer to the OEM procedures.
9. Release quick disconnects on the air compressor coolant supply line by pulling up on the metal clips at the ends of the line. Pull back on the line to remove it from the cylinder block and air compressor.

3 Installation of the Air Compressor Coolant Supply Line

NOTE: This procedure applies to the coolant line that supplies engine coolant from the cylinder block to the air compressor.

Install as follows:

1. Install the coolant supply line onto the cylinder block and air compressor coolant fittings. Push firmly to seat the quick disconnects. Pull back on the line to ensure proper connections at the coolant fittings.
2. Install any OEM brackets and cable ties that were removed for access. Refer to the OEM procedures.
3. Install the power steering pump, if removed. Refer to the OEM procedure.
4. Fill the cooling system. Refer to section "Cooling System Fill Procedure".
5. Install the side fairing and inner fender, if removed. Refer to the OEM procedures.
6. Install the bumper, if removed. Refer to the OEM procedure.



CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

7. Connect the batteries. Refer to the OEM procedure.



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.



WARNING: ENGINE EXHAUST

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

8. Start the engine and inspect for leaks.
9. Close the hood.
10. Remove wheel chocks.

4 Removal of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module)

NOTE: This procedure applies to the coolant line that returns engine coolant from the air compressor to the fuel filter module on a three-filter engine.

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Disconnect the batteries. Refer to the OEM procedure.
3. Open the hood.
4. If necessary, remove the bumper for access. Refer to the OEM procedure.
5. If necessary, remove the side fairing and inner fender for access. Refer to the OEM procedures.
6. Drain the cooling system. Refer to section "Cooling System Drain Procedure".
7. If necessary, remove the power steering pump for access. Refer to the OEM procedure.
8. Remove any applicable OEM brackets and cable ties that may interfere with coolant line removal. Refer to the OEM procedures.
9. Release quick disconnects on air compressor coolant return line by pulling up on the metal clips at the ends of the line. Pull back on the line to remove it from the air compressor and fuel filter module.

5 Installation of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module)

NOTE: This procedure applies to the coolant line that returns engine coolant from the air compressor to the fuel filter module on a three-filter engine.

Install as follows:

1. Install the coolant return line onto the air compressor and fuel filter module coolant fittings. Push firmly to seat the quick disconnects. Pull back on the line to ensure proper connections at the coolant fittings.
2. Install any OEM brackets and cable ties that were removed for access. Refer to the OEM procedures.
3. Install the power steering pump, if removed. Refer to the OEM procedure.
4. Fill the cooling system. Refer to section "Cooling System Fill Procedure".
5. Install the side fairing and inner fender, if removed. Refer to the OEM procedures.
6. Install the bumper, if removed. Refer to the OEM procedure.



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7. Connect the batteries. Refer to the OEM procedure.



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8. Start the engine and inspect for leaks.
9. Close the hood.
10. Remove wheel chocks.

6 Removal of the Air Compressor Coolant Return Line (Fuel Filter Module to Oil Coolant Module)

NOTE: This procedure applies to the coolant line that returns engine coolant from the fuel filter module to the oil coolant module on a three-filter system.

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Disconnect the batteries. Refer to the OEM procedure.
3. Open the hood.
4. If necessary, remove the bumper for access. Refer to the OEM procedure.
5. Drain the cooling system. Refer to section "Cooling System Drain Procedure".
6. Remove the four bolts securing the cold boost pipe support bracket to the cold boost pipe and oil coolant module. Remove the support bracket.
7. Release quick disconnects on the air compressor coolant return line by pulling up on the metal clips at the ends of the line. Pull back on the line to remove it from the fuel filter module and oil coolant module.

7 Installation of the Air Compressor Coolant Return Line (Fuel Filter Module to Oil Coolant Module)

NOTE: This procedure applies to the coolant line that returns engine coolant from the fuel filter module to the oil coolant module on a three-filter engine.

Install as follows:

1. Install the coolant return line onto the fuel filter module and oil coolant module coolant fittings. Push firmly to seat the quick disconnects. Pull back on the line to ensure proper connections at the coolant fittings.
2. Install the cold boost pipe support bracket and four bolts securing the bracket to the cold boost pipe and oil coolant module. Torque bolts to 30 N·m (22 lb·ft).
3. Fill the cooling system. Refer to section "Cooling System Fill Procedure".
4. Install the bumper, if removed. Refer to the OEM procedure.



CAUTION: ELECTRICAL SHOCK

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

5. Connect the batteries. Refer to the OEM procedure.



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WARNING: ENGINE EXHAUST

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6. Start the engine and inspect for leaks.
7. Close the hood.
8. Remove wheel chocks.

8 Removal of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module and Oil Coolant Module)

NOTE: This procedure applies to the coolant line that returns engine coolant from the air compressor and fuel filter module to the oil coolant module on a two-filter engine.

Remove as follows:

1. Shut off the engine, apply the parking brake, chock the wheels, and perform any other applicable safety steps.
2. Disconnect the batteries. Refer to the OEM procedure.
3. Open the hood.
4. If necessary, remove the bumper for access. Refer to the OEM procedure.
5. If necessary, remove the side fairing and inner fender for access. Refer to the OEM procedures.
6. Drain the cooling system. Refer to section "Cooling System Drain Procedure".
7. Remove the four bolts securing the cold boost pipe support bracket to the cold boost pipe and oil coolant module. Remove the support bracket.
8. Remove the two bolts securing the coolant line to the oil coolant module and the fuel filter module.
9. Remove any applicable OEM brackets and cable ties that may interfere with coolant line removal. Refer to the OEM procedures.
10. Release the quick disconnects on the air compressor coolant return line by pulling up on the metal clips at the ends of the line. Pull back on the line to remove it from the air compressor, fuel filter module and oil coolant module.

9 Installation of the Air Compressor Coolant Return Line (Compressor to Fuel Filter Module and Oil Coolant Module)

NOTE: This procedure applies to the coolant line that returns engine coolant from the air compressor and fuel filter module to the oil coolant module on a two-filter engine.

Install as follows:

1. Install the coolant return line onto the air compressor, fuel filter module and oil coolant module coolant fittings. Push firmly to seat the quick disconnects. Pull back on the line to ensure proper connections at the coolant fittings.
2. Install any OEM brackets and cable ties that were removed for access. Refer to the OEM procedures.
3. Install the two bolts securing the coolant line to the oil coolant module and the fuel filter module. Torque bolts to 30 N·m (22 lb·ft).
4. Install the cold boost pipe support bracket and four bolts securing the bracket to the cold boost pipe and oil coolant module. Torque bolts to 30 N·m (22 lb·ft).
5. Fill the cooling system. Refer to section "Cooling System Fill Procedure".
6. Install the side fairing and inner fender, if removed. Refer to the OEM procedures.
7. Install the bumper, if removed. Refer to the OEM procedure.



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8. Connect the batteries. Refer to the OEM procedure.



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WARNING: ENGINE EXHAUST

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9. Start the engine and inspect for leaks.
10. Close the hood.
11. Remove wheel chocks.