

3. Position fuel transfer pump (1) on pump drive (5).

Note: Ensure that the splines on the shaft of the fuel transfer pump are correctly engaged into the pump drive.

4. Install bolts (4). Tighten the bolts to a torque of 47 N·m (35 lb ft).

5. Remove the plugs from the hose assemblies. Connect hose assemblies (2) and (3) to fuel transfer pump (1).

6. Turn the fuel supply to the “ON” position.

7. Remove the air from the fuel system. Refer to Systems Operation, Testing and Adjusting, “Fuel System - Prime”.

i02554720

Electronic Unit Injector - Remove

Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	27610288	Pry Bar	1

Start By:

a. Remove the rocker arms and the rocker arm shaft. Refer to Disassembly and Assembly, “Rocker Arm and Shaft - Remove”.

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

1. Turn the fuel supply to the OFF position.

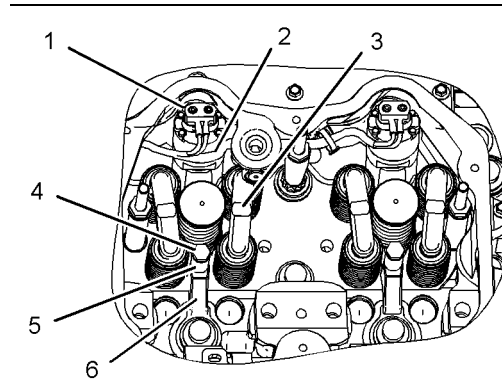


Illustration 9

g01150587

2. Disconnect harness assembly (1) from electronic unit injector (2).

3. Remove valve bridges (3).

NOTICE

If the injector hold down bolt is loose during the removal procedure, inspect the injector bore for wear and debris. Replace the clamp and spacer.

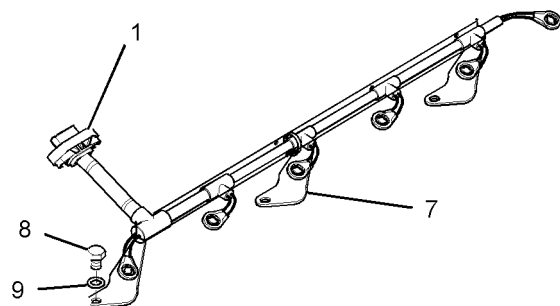


Illustration 10

g01284035

4. Remove bolts (8) and washers (9). Remove harness assembly (1) and support bracket (7) as a unit.

5. Remove bolt (4) and spacer (5).

6. Place an identification mark on electronic unit injector (2) for installation purposes. Each electronic unit injector must be reinstalled in the original location in the cylinder head.

i02554719

Electronic Unit Injector - Install

Installation Procedure

Table 2

Required Tools			
Tool	Part Number	Part Description	Qty
B	GE50028	Vacuum Pump	1
	GE50046	Fluid Sampling Bottle	1
	GE50030	Tube 7.9 mm (0.31 inch) OD	1
C	-	Large Bore Brush	1
D	27610308	Surface Reconditioning Pad	1
E	27610296	Torque Wrench	1

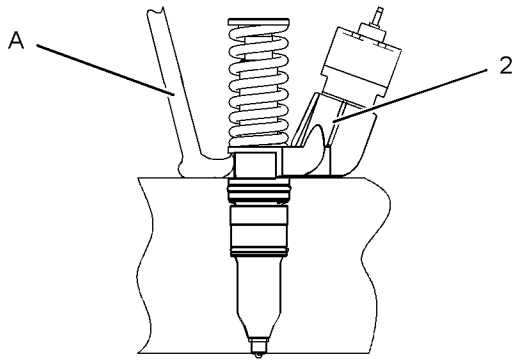


Illustration 11

g01073439

- Use Tooling (A) to pry beneath the base and free electronic unit injector (2).
- Remove electronic unit injector (2) and clamp (6) from the cylinder head.

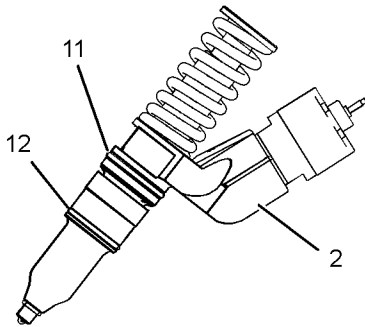


Illustration 12

g01284341

- Remove O-ring seals (11) and (12) from electronic unit injector (2).

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

- Use Tooling (D) to clean the carbon deposit from the inside of the electronic unit injector sleeve.
- Use Tooling (B) to remove the fuel and oil from the cylinder. Evacuate as much fuel and oil as possible from the cylinder before installing the electronic unit injector. Several evacuations may be necessary.

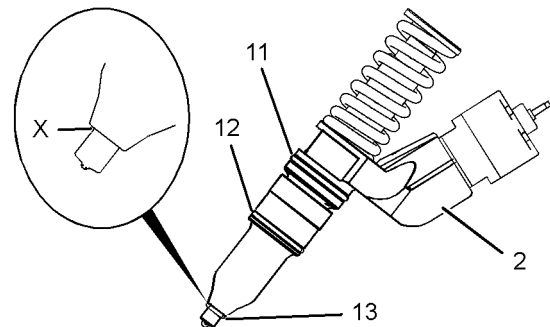


Illustration 13

g01284074

- Ensure that seat area (X) on the electronic unit injector is clean and free carbon.
- Install new O-ring seals (11) and (12) on the electronic unit injector. Lubricate the O-ring seals with clean engine oil.

5. Install a new O-ring seal (13) on the electronic unit injector.

Note: O-ring seal (13) should be installed dry.

NOTICE

If a replacement electronic unit injector is installed, the calibration code must be programmed into the electronic control module. Refer to Troubleshooting Guide, "Injector Trim File" for more information.

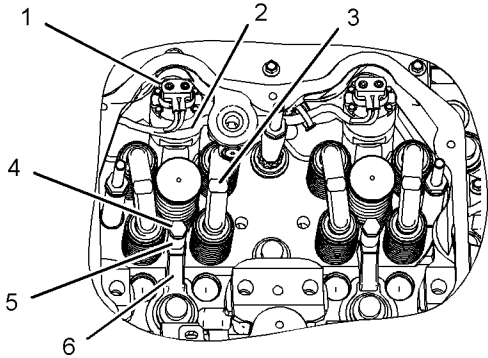


Illustration 14

g01150587

6. Install clamp (6) to electronic unit injector (2). Install electronic unit injector (2) into the original location in the cylinder head.
7. Install spacer (5) and bolt (4). Tighten bolt (4) to a torque of 55 N·m (41 lb ft).

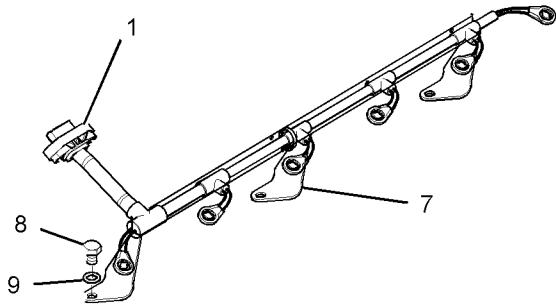


Illustration 15

g01284035

8. Install harness assembly (1) and support bracket (7) as a unit. Install bolts (8) and washers (9). Tighten bolts (8) to a torque of 105 N·m (77 lb ft).
9. Connect harness assembly (1) to electronic unit injector (2). Use Tooling (E) to tighten the nuts to a torque of 2.5 N·m (22 lb in).
10. Install bridge assemblies (3) in the respective locations.

Note: Ensure that used valve bridges are reinstalled in the original location and the original orientation. Do not interchange the location or the orientation of used valve bridges.

11. Install the rocker arms and the rocker arm shaft. Refer to Disassembly and Assembly, "Rocker Arm and Shaft - Install".
12. Turn the fuel supply to the "ON" position.
13. Remove the air from the fuel system. Refer to Systems Operation, Testing and Adjusting, "Fuel System - Prime".

i02554722

Electronic Unit Injector Sleeve - Remove

Removal Procedure

Table 3

Required Tools			
Tool	Part Number	Part Description	Qty
A	GE50021	Injector Sleeve Tool	1

Start By:

- a. Remove the electronic unit injectors. Refer to Disassembly and Assembly, "Electronic Unit Injector - Remove".

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

1. Drain the coolant from the engine. Refer to Operation and Maintenance Manual, "Cooling System Coolant - Change".

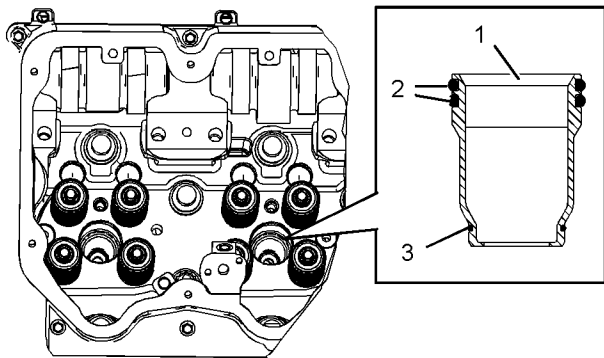


Illustration 16

g01076133

2. Install Tooling (A) in electronic unit injector sleeve (1).
3. Tighten the nut on Tooling (A) until the electronic unit injector sleeve is pulled free of the cylinder head.
4. Remove O-ring seals (2) and O-ring seal (3) from electronic unit injector sleeve (1).

i02554721

Electronic Unit Injector Sleeve - Install

Installation Procedure

Table 4

Required Tools			
Tool	Part Number	Part Description	Qty
A	GE50021	Injector Sleeve Tool	1
B	GE50023	Tapered Brush	1
	GE50024	Small Bore Brush	1
	GE50022	End Brush	1
C	CV60893	Retaining Compound	1

NOTICE

Keep all parts clean from contaminants.

Contaminants may cause rapid wear and shortened component life.

1. Use Tooling (B) to clean the bore in the cylinder head for the electronic unit injector sleeve.

NOTICE

Ensure that the electronic unit injector sleeve and the cylinder head bore are completely free of oil, dirt, and sealant debris.

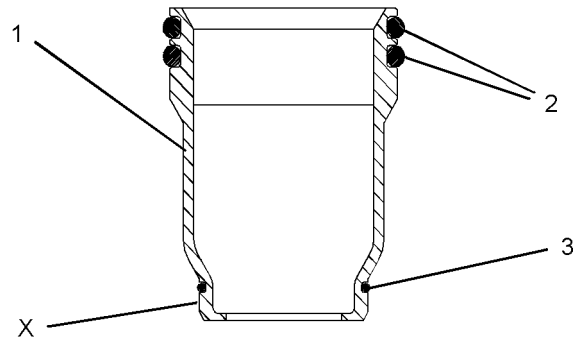


Illustration 17

g01043165

2. Install new O-ring seals (2) and (3) to electronic unit injector sleeve (1).

Note: Do not apply Tooling (C) to the cylinder head surfaces. Apply Tooling (C) to the electronic unit injector sleeve only.

3. Apply a small continuous bead of Tooling (C) to surface (X) of electronic unit injector sleeve (1).
4. Lubricate O-ring seals (2) with clean engine oil.
5. Position Tooling (A) and the electronic unit injector sleeve in the cylinder head. Use care not to damage the O-ring seals on the electronic unit injector sleeve.
6. Use Tooling (A) to install electronic unit injector sleeve (1) in the cylinder head.

Note: Ensure that the electronic unit injector sleeve is properly seated in the cylinder head.

7. Remove Tooling (A). Use a clean towel and remove excess Tooling (C).
8. Fill the cooling system with coolant. Refer to Operation and Maintenance, "Refill Capacities" for the cooling system capacity.

End By:

- a. Install the electronic unit injectors. Refer to Disassembly and Assembly, "Electronic Unit Injector - Install".