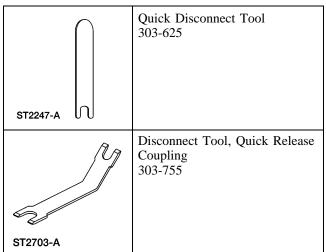
### **REMOVAL AND INSTALLATION**

## **Fuel Injectors**

### Special Tool(s)

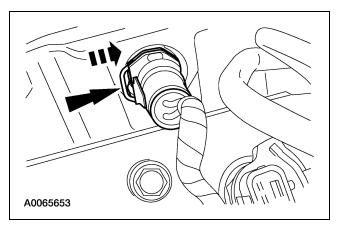


### Material

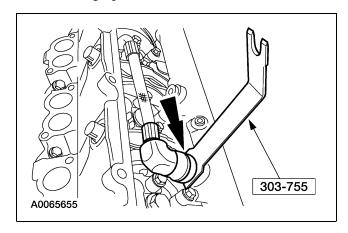
Item	Specification
Super Duty SAE 15W-40 Engine Oil XO-15W40-QSD or equivalent	WSS-M2C171-B

### Removal

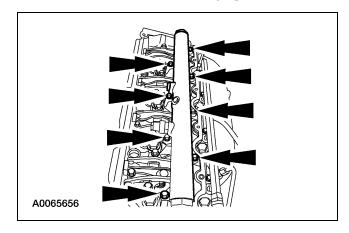
- 1. If removing the RH fuel injectors, remove the evaporator case. For additional information, refer to Section 412-02.
- 2. Remove the valve cover. For additional information, refer to Section 303-01D.
- 3. Disconnect the fuel injector electrical connector.



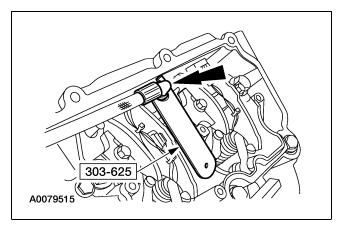
4. Disconnect the high pressure oil rail supply line at the high-pressure oil rail.



5. Remove the bolts and the high pressure oil rail.



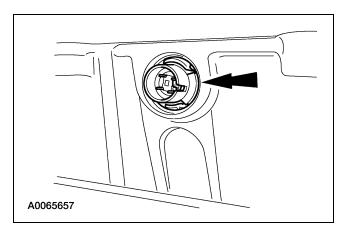
6. Disconnect and remove the high-pressure oil supply line.



## **REMOVAL AND INSTALLATION (Continued)**

7. CAUTION: Do not attempt to put battery voltage to the fuel injector or damage to the fuel injector will occur.

Using a 19 mm (0.74 in) socket, push the fuel injector electrical connector out of the rocker arm carrier.

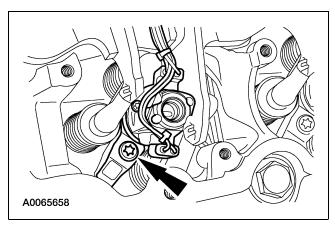


8. CAUTION: To prevent engine damage, do not use air tools to remove the fuel injectors. The clip that extracts the injector can dislodge and fall into the oil drain hole.

**NOTE:** There is no need to drain the fuel rail.

**NOTE:** If engine oil is found in the engine coolant or engine coolant is found in the combustion chambers, new injector sleeves may need to be installed.

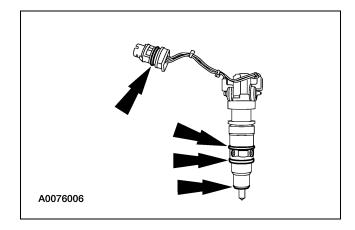
Remove the bolt, fuel injector hold down and fuel injector.



#### Installation

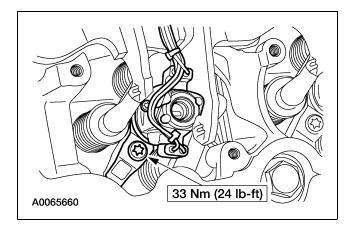
1. CAUTION: If the fuel injector oil inlet D-ring is damaged, a new fuel injector must be installed.

Install new O-rings and copper washer on the fuel injector. Lubricate the fuel injector and O-rings liberally with clean engine oil.



2. CAUTION: To prevent engine damage, do not use air tools to install the fuel injectors. The clip that extracts the injector can dislodge and fall into the oil drain hole.

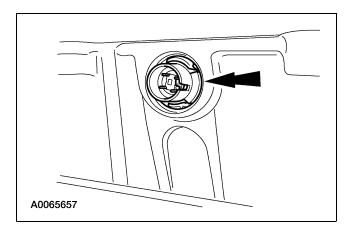
Install the fuel injector, fuel injector hold down and bolt.



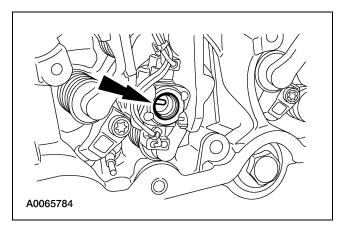
# **REMOVAL AND INSTALLATION (Continued)**

3. CAUTION: To prevent engine damage, be sure the fuel injector wiring is clear of all moving parts.

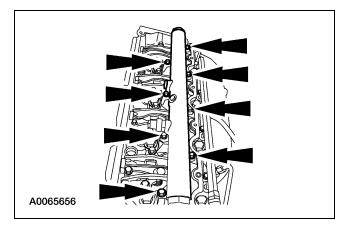
Install the fuel injector electrical connector into the rocker carrier.



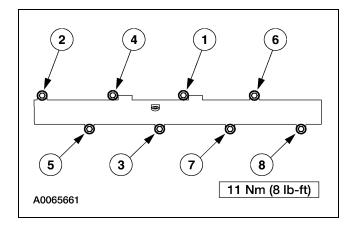
4. Apply engine oil to the top fuel injector O-rings.



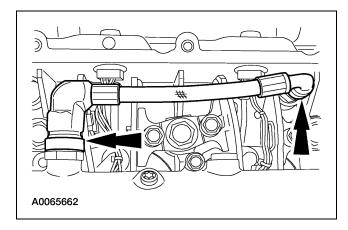
- 5. Install the high pressure oil rail and bolts.
  - Install the high pressure oil rail.
  - Install the bolts finger tight.



6. Tighten the bolts in the sequence shown.



7. Install the high-pressure oil line.



- 8. Install the valve covers. For additional information, refer to Section 303-01D.
- 9. If removed, install the evaporator case. For additional information, refer to Section 412-02.