

(/qs3/pubsys2/xml/en/manual/3666239/3666239-titlepage.html)

General Information

The injector sleeve is a component of the cylinder head group which separates the cooling water jacket from the injector bore/fuel system. The sleeve seals against the cylinder head at the top and bottom of the component.

Preparatory Steps

⚠ WARNING ⚠

Batteries can emit explosive gases. To reduce the possibility of personal injury, always ventilate the compartment before servicing the batteries. To reduce the possibility of arcing, remove the negative (-) battery cable first and attach the negative (-) battery cable last.

- Disconnect the batteries. See equipment manufacturer service information.
- Remove the rocker lever cover. Refer to Procedure 003-011 in Section 3 (</qs3/pubsys2/xml/en/procedures/10/10-003-011-tr.html>).
- Disconnect the internal actuator harness. Refer to Procedure 019-063 in Section 19 (</qs3/pubsys2/xml/en/procedures/19/19-019-063.html>).

- Drain the cooling system below the cylinder head level. Refer to Procedure 008-018 in Section 8 (</qs3/pubsys2/xml/en/procedures/10/10-008-018-tr.html>).

Leak Test

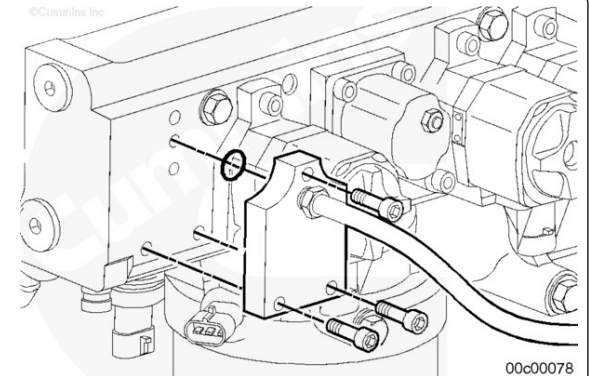
Install the Injector Leak Test Kit, Part Number 3164001, in place of the fuel-metering actuator.

Torque Value: 15.3 n•m [135 in-lb]

The fuel-metering actuators are the actuators located on each end of the unit.

For engines equipped with the CM871, remove the fuel-metering actuator for the front three cylinders. Use the Signature™ ISX and QSX15 Electronic Control System Troubleshooting and Repair Manual, Bulletin 3666259. Refer to Procedure 019-110 in Section 19 (</qs3/pubsys2/xml/en/procedures/72/72-019-110.html>).

For engines equipped with the CM870, remove the fuel-metering actuator for the front three cylinders. Use the Signature™ ISX CM870 Electronic Control System Troubleshooting and Repair Manual, Bulletin 4021334. Refer to Procedure 019-110 in Section 19 (</qs3/pubsys2/xml/en/procedures/70/70-019-110.html>).

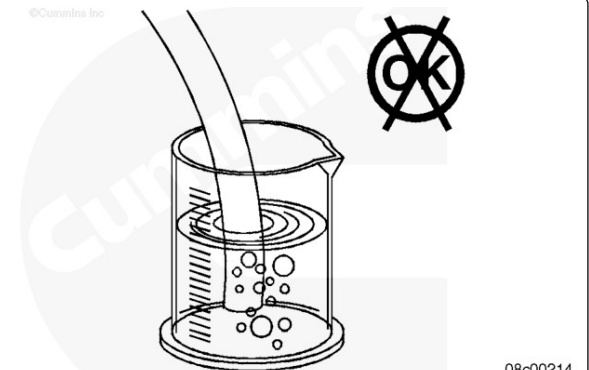


Connect the flexible tubing to the hose fitting on the mounting plate.

Place the flexible tubing into a container of water.

Pressurize the cooling system. Refer to Procedure 008-018 in Section 8 (</qs3/pubsys2/xml/en/procedures/10/10-008-018-tr.html>).

Visual confirmation of bubbles in the container of water indicates a leak at the top of the injector sleeve.



Repeat the above procedure for the rear three cylinders.

If a leak is found replace the cylinder head. Refer to Procedure 002-004 in Section 2. (</qs3/pubsys2/xml/en/procedures/10/10-002-004-tr.html>)

Finishing Steps

⚠ WARNING ⚠

Batteries can emit explosive gases. To reduce the possibility of personal injury, always ventilate the compartment before servicing the batteries. To reduce the possibility of arcing, remove the negative (-) battery cable first and attach the negative (-) battery cable last.

- Install and set the injector rocker lever and valve rocker lever assemblies. Refer to Procedure 003-009 in Section 19 (</qs3/pubsys2/xml/en/procedures/10/10-003-009.html>).
- Install the rocker lever cover. Refer to Procedure 003-011 in Section 3. (</qs3/pubsys2/xml/en/procedures/10/10-003-011-tr.html>)
- Connect the batteries. See equipment manufacturer service information.
- Fill the cooling system. Refer to Procedure 008-018 in Section 8. (</qs3/pubsys2/xml/en/procedures/10/10-008-018-tr.html>)
- Operate the engine. Check for leaks.