

Technical Service Bulletin Number
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TSB150038



Technical Service Bulletin

Subject

Improper Exhaust Gas Recirculation (EGR) Cooler Replacement with No Malfunction Found

Issue

Product Affected:

- ISX12 G CM2180 EJ
- ISL G CM2180

Internal Coolant Leaks

Exhaust Gas Recirculation (EGR) coolers returned to the factory, stated to have malfunctioned because of internal coolant leaks, were tested and found to be within specification. The EGR coolers tested by the factory were found to have acceptable measured pressure loss and no continuous formation of bubbles near the gas tubes or bulkhead while performing the EGR cooler pressure test.

The EGR coolers, incorrectly stated to have malfunctioned because of internal coolant leaks, were replaced for the following reason(s):

- Signs of moisture in the EGR cooler
- Signs of moisture in the EGR crossover tube
- Hard to diagnose low coolant level fault codes
- Incorrect pressure test kit being used on ISL G CM2180 EGR coolers

Other Malfunctions

EGR coolers, incorrectly stated to have malfunctioned, have been replaced for the following reasons:

- Oil contamination
- Fouling
- Debris

EGR coolers can be recovered using the EGR cooler cleaning procedure. See corresponding Service Manual. Reference Procedure 011-019 in Section 11.

Verification

- The EGR cooler pressure test **must** be performed to determine if EGR cooler is leaking coolant. For ISX12 G and ISL G with circular EGR coolers, the pressure test is now a submerged pressure test.
- An EGR cooler should **only** be replaced for coolant loss if EGR cooler does **not** pass a submerged pressure test. Moisture in EGR crossover tube or EGR cooler may be water condensation and is **not** adequate evidence that EGR cooler is leaking.
- For ISL G CM2180 engines, verify correct leak test kit part number is used during pressure tests and submerged pressure tests.
 - Horizontal plate EGR coolers use leak test kit, Part Number 4919688.
 - Circular tube EGR coolers use leak test kit, Part Number 5299224.

Reference corresponding EGR cooler procedure:

- See ISX12 G CM2180 EJ Service Manual, Bulletin 4310682. [Refer to Procedure 011-019 in Section 11.](#)
- See ISL G CM2180 Service Manual, Bulletin 4021649. [Refer to Procedure 011-019 in Section 11.](#)

Resolution

EGR cooler should **only** be replaced for the following reason(s):

- EGR cooler does **not** pass the EGR cooler submerged pressure test
- EGR cooler does **not** meet reuse guidelines defined in clean and inspect for reuse section of Procedure 011-019 in section 11 of corresponding Service Manual

Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Document History

Date	Details
2015-3-18	Module Created
2015-3-20	none

2016-6-22	Added ISL G CM2180 to Product Affected.
2016-6-23	Added procedure reference for ISL G CM2180.
2016-9-6	Added Other Malfunctions section. Updated Verification and Resolution section to include details pertaining to the EGR cooler submerged pressure test.

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