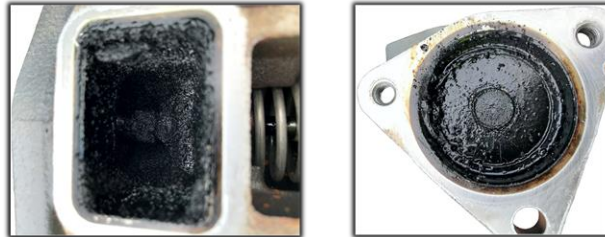


4LE2 LIGHT LOAD EGR VALVE SOOT DEPOSITS



LIGHT LOAD SOOT DEPOSITS

The Isuzu 4LE2 Tier 4 Final engine may experience heavy Unburnt Fuel (**Soot**) deposits in the Exhaust Gas Recirculation (**EGR**) Valve due to Light Loading situations, thus causing the specific EGR flash codes 44 (P0409) or 45 (P0404).

Normal EGR Valve Operation in the System

- Mixes exhaust with incoming air to meet emissions.

Effects on EGR Valve in Light Loading Situations

- The EGR valve is not commanded to open due to a small volume of air being used by the engine.
- There is not enough volume of cooler or denser air to mix with the exhaust from the EGR without negatively affecting engine performance.
- Soot deposits begin accumulating in the EGR valve.
- Continuous operation of the unit will give little to no warning of soot accumulation in the EGR valve.

ECU's Fault Detection of EGR Valve Deviation

- Fault codes are set in the ECU during a restart attempt due to a shutdown of any type i.e. running out of fuel, normal servicing etc.
- As a function of normal operation, the engine ECU confirms all components are operating in their normal range at every key on/start up by sweeping the range and looking at the feedback from those components.

Corrective Action for EGR Valve Fault Codes 44 or 45

1. Remove the valve to clean off the deposits, (one electrical plug and 7 bolts), (Note: Gaskets can be reused), Ref. Fig. 1 & 2.
2. Remove unwanted deposits using a flat blade screwdriver. Once deposits have been cleared, confirm the spool moves freely.
3. These EGR faults will self-clear at the next power (operator key or toggle switch) cycle. No code clearing via IDST or jumping V53, unless other codes are active.

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Technical Information

Product Group: DCA-SERIES
Model: DCA20-45 & DIS185SSI4F

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PLEASE NOTE:

OPERATING THE UNIT IN A LIGHT LOAD SITUATION FOR EXTENDED PERIODS WOULD REQUIRE INSPECTING/CLEANING THE EGR VALVE EVERY 500 HOURS AS PART OF THE NORMAL MAINTENANCE SCHEDULE.

Fig. 1

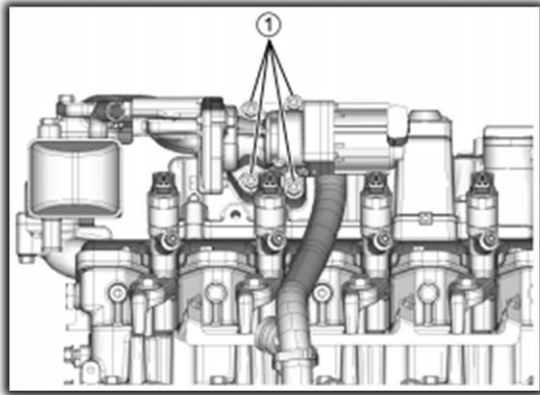
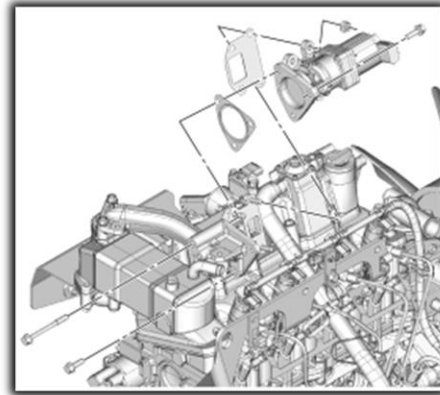


Fig. 2



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