

Technical Service Bulletin Number	Revision Level	Date	Group Number
TSB120067			



Technical Service Bulletin

Subject

ISX15 and QSX15 Fracture Split Connecting Rods

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.

Contents

Fracture split connecting rods are presently a production part for 15L engines. This document is intended to make the field aware of this change and provide important information about these rods.

- Production Start Date: 10/1/12
- Engine serial number (ESN) first: 79614966

During production trial runs, a limited number of ISX15 and QSX15 engines were produced with fracture split connecting rods (prior to the production start date and ESN first).

If a fracture split connecting rod needs to be replaced, order the part number listed on QuickServe™ Online for the specific ESN (may be a saw cut rod).

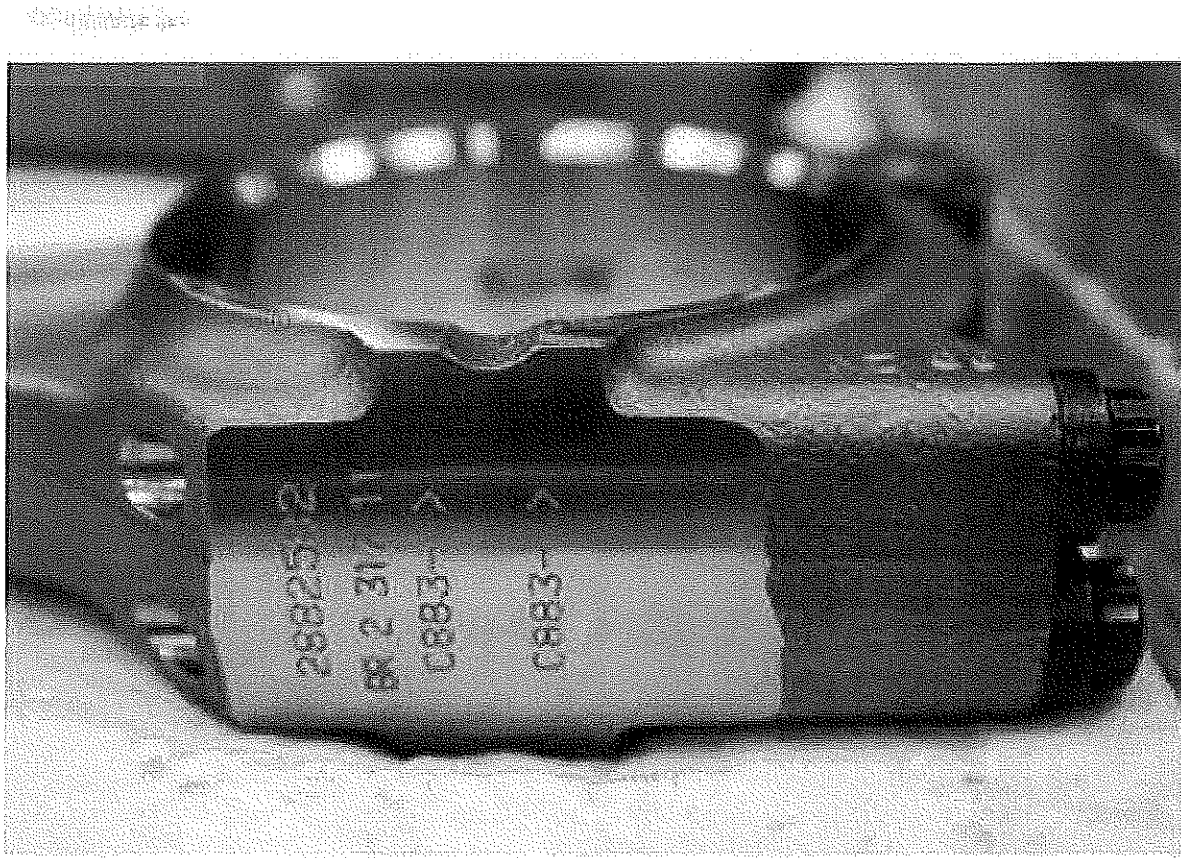
NOTE: Machined connecting rod assemblies may be mixed with fracture split connecting rod assemblies within the same engine. The saw cut and fracture split connecting rods do require different rod bearings, so it is important to order and install the correct bearings.

Connecting rods with a fracture split surface **must** be treated with caution. The two pieces of the connecting rod **cannot** be rubbed together. This will damage the mating surfaces. Do **not** drop either piece of the connecting rod. Fracture split connecting rods **must only** be handled if the two pieces of the connecting rod are tightened to the correct specification, or are completely separated.

The fracture joint may produce debris at each separation. Use solvent and a nylon bristle brush to clean the contact surface between the connecting rod and the connecting rod cap. Dry the contact surface with compressed air.

Make sure that the rod cap is installed **only** on the connecting rod from which it was removed, and that the rod cap is properly oriented when installing. Both the rod cap and the connecting rod are serialized on one face to make sure of proper orientation.

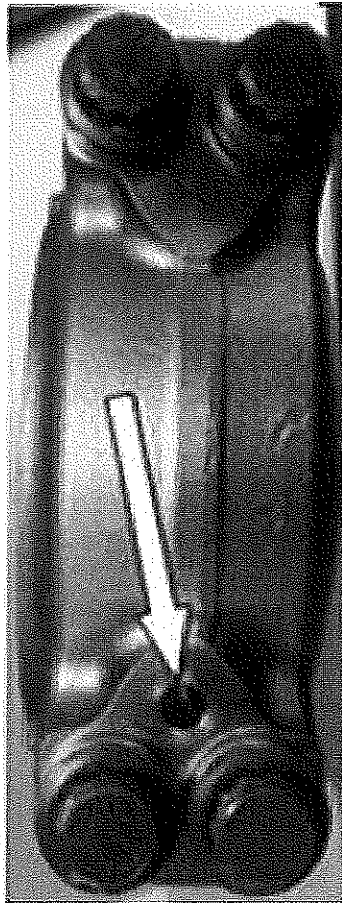
If the rod cap is placed backwards on the connecting rod, the mating fracture surface will be damaged and the rod **must** be replaced. Fracture split rod capscrew torque specification and sequence remains the same as the saw cut connecting rods.



01y00001

Face Serialized for Proper Orientation

01000099



01000099

Fracture Split Connection

W 0000000000



01600100

Saw Split Connection

It is important to understand if the rod has a fracture split or a saw cut connection. For identification, the fracture split connecting rod will have a visible hole drilled in the cap. (See photograph on left above).

Use the following procedure for piston and connecting rod information:

- Signature™, ISX, and QSX15 Service Manual, Bulletin 3666239. Refer to Procedure 001-054 in Section 1.
- ISX15 CM2250 Service Manual, Bulletin 4022250. Refer to Procedure 001-054 in Section 1.
- QSX15 CM2250 ECF Service Manual, Bulletin 2883557. Refer to Procedure 001-054 in Section 1.
- PowerGen QSX15 CM2250 ECF Service Manual, Bulletin 4310661. Refer to Procedure 001-054 in Section 1.
- PowerGen QSX15 CM2250 Service Manual, Bulletin 4310664. Refer to Procedure 001-054 in Section 1.

NOTE: Minimize the number of joint interactions between the connecting rod and the rod cap. There are **only** a finite number of times a connecting rod and rod cap can be

assembled and removed before the joint loses its proper interaction.

Table 1: Connecting Rod and Bearing Compatibility				
Connecting Rod Design	Connecting Rod	Rod Bearing Kit	Upper Rod Bearing Shell	Lower Rod Bearing Shell
Fracture Split	2882582 (Sold as 288258200NX)	2882087	3686435*	3686436*
Saw Cut	4059429 (Sold as 405942900NX, 405924900RX)	4089405	4925971*	4925975*

*The upper and lower rod bearing shells are not sold individually. Reference the rod bearing kit part number for the appropriate part number for connecting rod design.

CAUTION

The fracture split connecting rod requires a different large end rod bearing than the saw cut connecting rod. The bearings are specific to the connecting rod design and are not backwards compatible. The oil drilling in the connecting rod and upper bearing shell will not be aligned if the wrong bearing is used. An engine may have a mixture of fracture split and saw cut connecting rods, so it is critical to install the correct rod bearings in the correct connecting rod design. Failure to do so could result in severe engine damage.

CAUTION

Do not damage the fracture split surface on the connecting rod or connecting rod cap while the connecting rod caps are removed. If the fracture split surface is damaged, the connecting rod and connecting rod cap must be replaced to reduce the possibility of engine damage. Incorrect assembly can damage the rod.

CAUTION

Prevent damage to the fracture split connecting rod. Do not set the connecting rod or rod cap on the fracture split connection. This may cause polishing and damage to the mating surface.

Document History

Date	Details
2012-3-6	Module Created

Date	Details
2012-10-12	QSOL Quick Fix Reason: Spelling Error Notes: none
2012-11-15	Updating TSB to contain part numbers and ESN first information.
2013-6-4	Fracture split rod and bearing part number reference table updated with current part numbers

Last Modified: 04-Jun-2013

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