



# Technical Service Bulletin

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New Front Crankshaft Seal and Debris Shield

## New Front Crankshaft Seal and Debris Shield

### 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

#### Product Affected

- ISC (All Versions)
- ISL (All Versions)
- L9 (All Versions)
- QSC (All Versions)
- QSL (All Versions)

#### Description of Change

- A new front crankshaft seal is available.
- A new debris shield is available.

#### Reason for Change

- Front crankshaft seal was improved to reduce external oil leaks.
- New debris shield was developed to work with new front crankshaft seal to improve dust/debris exclusion performance.

#### Service Instructions

- If existing front crankshaft seal has malfunctioned and crankshaft surface does **not** have excessive wear, replace with new front crankshaft seal.
  - A new debris shield **must** be used with new front crankshaft seal.
  - Verify front gear cover to front crankshaft seal mating surface is free from residual sealant and any damage prior to installing a new front crankshaft seal. See corresponding Service Manual. Reference Procedure 001-023 in Section 1. Reference Clean and Inspect for Reuse section for front gear cover reuse guidelines.
  - A new installation kit **must** be used (see Table 1).

- If existing front crankshaft seal has malfunctioned **and** crankshaft surface has excessive wear, replace using service kits with wear sleeve included. See corresponding Service Manual. Reference Procedure 001-023 in Section 1.

### Service Parts

Service parts are offered. See Table 1 for part numbers.

**Table 1, Service Parts**

Part Description	Existing Part Number	Obsolete	Superseded	New Part Number
Oil seal	3942535	Yes	Yes	5682528
Oil seal	3921927	Yes	No	-
Installation kit	-	-	-	5573509
Debris shield	5401041	Yes	Yes	5682529
Seal kit (with wear sleeve)	3925343	No	No	-

### Part Compatibility

New front crankshaft seal is **only** compatible with new debris shield.

### Part Identification

Existing and new front crankshaft seal part numbers are shown in Figure 1.



Figure 1, Existing and New Front Crankshaft Seal Comparison.

1. Reduced metal carrier thickness
2. Molded rubber gasket on backside of metal carrier
3. Molded rubber lip on ID of metal carrier

New debris shield material is metal and the difference between existing and new part numbers can be seen in Figure 2.



Figure 2, Existing and New Debris Shield Comparison.

## Document History

Date	Details
2024-1-5	Module Created

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