



652 Oliver Street
Williamsport, PA. 17701 U.S.A.

Telephone +1 (877) 839-7878 (U.S. and Canada)
Telephone +1 (570) 327-7222 (International)
Fax +1 (570) 327-7101
Email Technicalsupport@lycoming.com

www.lycoming.com

SERVICE INSTRUCTION

DATE: May 15, 2019

Service Instruction No. 1279D
(Supersedes Service Instruction No. 1279C)
Engineering Aspects are
FAA Approved

SUBJECT: Oil Sump Baffle Replacement

MODELS AFFECTED: IO-540-AA1A5, -AA1B5, -AE1A5, -E1A5, -E1B5, -K1A5, -K1B5, -K1D5, -K1E5, -K1F5, -K1G5, -K1H5, -K1J5, -K1K5, -K1A5D, -K1G5D, -K1J5D, -L1C5, -M1A5, -M1C5, -M1B5D, -S1A5
TIO-540-A2B, -A2C, -AE2A, -AH1A, -F2BD, -J2B, -J2BD, -S1AD, -U2A
LTIO-540-F2BD, -J2B, -J2BD, -U2A
IO-580-B1A

TIME OF COMPLIANCE: Whenever oil sump baffle replacement is necessary or at owner's discretion.

REASON FOR REVISION: Oil sump baffle P/N 56G23399 and 56G26069 superseded by P/N 56G28031. Added reference to new attaching hardware required for new baffle P/N. Added Table 1 to cross-reference baffle or sump assembly P/N to engine model.

NOTE

Incomplete review of all the information in this document can cause errors. Read the entire Service Instruction to make sure you have a complete understanding of the requirements.

This Service Instruction includes three replacement options that apply to two different oil sump baffles on affected Lycoming engine models:

- To replace the oil sump baffle that is attached to the crankcase with oil sump baffle P/N 56G28031, refer to Part I of this Service Instruction.
- To replace the oil sump baffle that is installed on bosses in the oil sump and induction housing P/N *56A26070-XX / 56A26071-XX, refer to Part II of this Service Instruction.
- To replace the oil sump which has the oil sump baffle attached to the crankcase with the new all-in-one six-boss oil sump and induction housing assembly P/N *56A26070-XX / 56A26071-XX that will come with the oil sump baffle P/N 56G28031 already installed, refer to Part III of this Service Instruction.

* Reference Table 1 for correct part number and suffix based on engine model.



| ISSUED | | | REVISED | | | PAGE NO. | REVISION |
|--------|-----|------|---------|-----|------|----------|----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 1 of 8 | D |

Part I – Installation Instructions for Oil Sump Baffle P/N 56G28031 (Models Compatible to Figure 1)

Oil sump baffle P/N 56G28031 (no bosses) is to be used on affected engine models to replace any of the following oil sump baffle P/N's which are no longer available.

- 56G23399
- LW-13383
- LW-13231

Oil sump baffle P/N 72958 is still available from Lycoming Engines and serviceable parts can be used in the existing configuration until further notice.

The following new hardware is needed to perform this instruction correctly.

- **6 Screws P/N STD-969**
- **6 Washers P/N AN970-3**

To install the new oil sump baffle P/N 56G28031:

1. In accordance with instructions in the applicable Lycoming Maintenance/Overhaul Manual(s):
 - a. Drain the oil from the oil sump.
 - b. Remove fuel system components.
 - c. Remove the oil sump from the crankcase.
 - d. Remove and discard the oil sump gasket.
2. Remove and discard the safety lockwire.
3. Remove the six washers (Figure 1) and six screws from the oil sump baffle and discard. Hardware will be replaced.
4. Remove and discard the damaged oil sump baffle.

NOTE

No washers are necessary against the baffle supports.

5. If there are no washers in the hardware that holds the oil sump baffle supports to the crankcase, or if the baffle supports are not damaged, go to Step 6 to install the new oil sump baffle.
 - a. From the bottom of the crankcase, remove and discard the lockwire from the three pair of nuts (Figure 1) that hold each of two short oil sump baffle supports and four oil sump baffle supports to the crankcase.
 - b. Remove two Screws, washers (if any), and nuts from each of the two short oil sump baffle supports and the four oil sump baffle supports.
 - c. Discard all the washers, as they will not be installed again. Keep all the screws and nuts unless they are damaged. Replace any damaged screws or nuts.
 - d. Keep all the baffle supports unless they are damaged. Replace any damaged baffle supports.
 - e. Install the bolt and nut pairs on each of the two short oil sump baffle supports at the rear of the crankcase and on the four oil sump baffle supports on the crankcase. Refer to Figure 1 for orientation of the baffle supports.
 - f. Torque the slotted shear nuts 55 in.-lb (6.2 Nm) and then advance the nut to align the next slot in the nut with the hole in the bolt.
 - g. Install and safety the lockwire through each pair of the nuts for the baffle supports as shown in Figure 2.

* Reference Table 1 for correct part number and suffix based on engine model.

| ISSUED | | | REVISED | | | PAGE NO. | REVISION | S.I. 1279 |
|--------|-----|------|---------|-----|------|----------|----------|-----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 2 of 8 | D | |

6. Install the new oil sump baffle P/N 56G28031 (Figure 1) with the small end towards the rear of the crankcase and the fin on the baffle towards the oil sump.
7. Install the six new washers (AN970-3) and six new screws (STD-969) in the new oil sump baffle. Torque the screws to 40 in.-lb (4.5 Nm).
8. In accordance with instructions in the applicable Lycoming Maintenance/Overhaul Manual(s):
 - a. Install a new applicable oil sump gasket on the oil sump.
 - b. Install the oil sump on the crankcase.
 - c. Safety the oil sump drain plug(s).
 - d. Add oil to the oil sump to the correct level.
 - e. Before flight, re-install fuel lines and fuel system components.
 - f. Do a check of the oil level to make sure there is sufficient oil in the oil sump.
 - g. Complete an operational and leak check of the engine.
9. Record the oil sump baffle replacement in accordance with this Service Instruction in the engine logbook.

Part II – Installation Instructions for Oil Sump Baffle P/N 56G28031 (Models Compatible to Figure 3)

When replacement is necessary on oil sumps with six integral bosses (P/N *56A26070-XX or 56A26071-XX), use oil sump baffle P/N 56G28031 (Figure 3).

The following new hardware is needed to perform this instruction correctly.

- **6 Washers P/N AN970-4**

To install the new oil sump baffle P/N 56G28031:

1. In accordance with instructions in the applicable Lycoming Maintenance/Overhaul Manual(s):
 - a. Drain the oil from the oil sump.
 - b. Remove fuel system components.
 - c. Remove the oil sump from the crankcase.
 - d. Remove and discard the oil sump gasket.
2. Remove and discard the safety lockwire from the six bolts P/N LW-25H0.63.
3. Remove the six bolts P/N LW-25H0.63 and washers P/N STD-8 from the baffle (Figure 3).
 - a. Washers should be discarded and replaced.
4. Remove the damaged oil sump baffle from the oil sump.
5. Install the new oil sump baffle on the six bosses in the oil sump.
6. Install six bolts P/N LW-25H0.63, each with a washer P/N AN970-4, in the new oil sump baffle. Torque the bolts to 40 in.-lb (4.5 Nm).
7. Safety the six bolts P/N LW-25H0.63.
8. In accordance with instructions in the applicable Lycoming Maintenance/Overhaul Manual(s):
 - a. Install a new applicable oil sump gasket on the oil sump.
 - b. Install the oil sump on the crankcase.
 - c. Safety the oil sump drain plug(s).

* Reference Table 1 for correct part number and suffix based on engine model.

| ISSUED | | | REVISED | | | PAGE NO. | REVISION | S.I. 1279 |
|--------|-----|------|---------|-----|------|----------|----------|-----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 3 of 8 | D | |

- d. Add oil to the oil sump to the correct level.
 - e. Re-install fuel lines and fuel system components.
 - f. Do a check of the oil level to make sure there is sufficient oil in the oil sump.
 - g. Before flight, complete an operational and leak check of the engine.
9. Record the oil sump baffle replacement in accordance with this Service Instruction in the engine logbook.

Part III - Conversion Instructions for New Oil Sump and Induction Housing Assembly

P/N 56A26070-XX / 56A26071-XX

To replace an oil sump that has the oil sump baffle attached to the crankcase with a new oil sump and induction housing *56A26070-XX / 56A26071-XX that has the oil sump baffle already installed:

1. In accordance with instructions in the applicable Lycoming Maintenance/Overhaul Manual(s).
 - a. Remove the fuel lines and fuel system components.
 - b. Drain the oil from the oil sump.
2. Remove the fastening hardware from the oil sump. Discard and replace only the lock washers, and any damaged hardware.
3. Remove and discard the oil sump and oil sump gasket.
4. Remove and discard the safety lockwire.
5. Remove the bolts, washers and nuts (Figure 1) from the oil sump baffle supports on the oil sump baffle (Figures 1 and 4).
6. Remove and discard the oil sump baffle supports and the oil sump baffle.
7. Install the bolts in the crankcase. Torque the bolts as per the latest revision of the Table of Limits SSP-1776.
 - a. If no washers were present when removing the baffle supports washer must be included when reinstalling the bolts. Washer P/N STD-8
 - b. Torque the slotted shear nuts 55 in.-lb (6.2 Nm) and then advance the nut to align the next slot in the nut with the hole in the bolt.
 - c. Install and safety the lock wire through each pair of the nuts for the baffle supports as shown in Figure 2.

 CAUTION

ALL GASKET MATERIAL MUST BE REMOVED FROM THE MATING SURFACE OF THE CRANKCASE. THE MATING SURFACE OF THE CRANKCASE MUST BE SMOOTH AND CLEAN FOR A TIGHT SEAL TO PREVENT OIL SEEPAGE/OIL LOSS AND POTENTIAL ENGINE FAILURE.

8. Remove all remaining gasket material from the mating surface of the crankcase. Clean the mating surface of the crankcase. Make sure this surface is smooth and clean.
9. Install a new oil sump gasket on the new oil sump *56A26070-XX / 56A26071-XX (Figure 5).

NOTE

The baffle will already be installed in the new oil sump P/N 56A26070.

* Reference Table 1 for correct part number and suffix based on engine model.

| ISSUED | | | REVISED | | | PAGE NO. | REVISION | S.I. 1279 |
|--------|-----|------|---------|-----|------|----------|----------|-----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 4 of 8 | D | |

10. Install the new oil sump and induction housing P/N 56A26070-XX / 56A26071-XX (Figure 5) with the oil sump fastening hardware (bolt, nut, washer and new lock washer).
11. Torque the perimeter oil sump fastening hardware to 96 in.-lb (10.8 Nm).
12. In accordance with instructions in the applicable Lycoming Maintenance/Overhaul Manual(s):
 - a. Safety oil sump drain plugs.
 - b. Add oil to the oil sump to the correct level.
 - c. Re-install fuel lines and fuel system components.
 - d. Do a check of the oil level to make sure there is sufficient oil in the oil sump.
 - e. Before flight, complete an operational and leak check of the engine.
13. Record this replacement in the engine logbook.

Table 1

| | |
|-------------|--|
| 56G28031 | IO-540-AA1A5, -AA1B5, -AE1A5, -AG1A5, -E1A5, -E1B5, -G1D5, -K1A5, -K1A5D, -K1B5, -K1D5, -K1E5, -K1F5, -K1G5, -K1G5D, -K1H5, -K1J5, -K1J5D, -K1K5, -K2A5, -L1C5, -M1A5, -M1B5D, -M1B5D, -M1C5, -S1A5 IO-580-B1A LTIO-540-F2BD, -J2B, -J2BD, -U2A TIO-540-A2B, -A2C, -AE2A, -AH1A, -F2BD, -J2B, -J2BD, -R2AD, -S1AD, -U2A |
| 56A26070-01 | TIO-540-AE2A |
| 56A26070-02 | TIO-540-AH1A |
| 56A26071-03 | IO-540-AE1A5, -AG1A5, -E1A5, -E1B5, -G1D5, -K1A5, -K1A5D, -K1B5, -K1D5, -K1E5, -K1F5, -K1G5, -K1G5D, -K1H5, -K1J5, -K1J5D, -K2A5, -K1G5, -M1A5, -M1B5D, -M1C5 LTIO-540-J2B, -J2BD TIO-540-J2B, -J2BD, -R2AD |
| 56A26071-04 | IO-540-AA1A5, -AA1B5, -S1A5 LTIO-540-U2A TIO-540-U2A |
| 56A26071-05 | IO-540-K1K5 |
| 56A26071-06 | IO-540-K1H5 |
| 56A26071-08 | LTIO-540-F2BD TIO-540-A2B, -A2C, -F2BD |
| 56A26071-09 | IO-540-AE1A5 |

| ISSUED | | | REVISED | | | PAGE NO. | REVISION | S.I. 1279 |
|--------|-----|------|---------|-----|------|----------|----------|-----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 5 of 8 | D | |

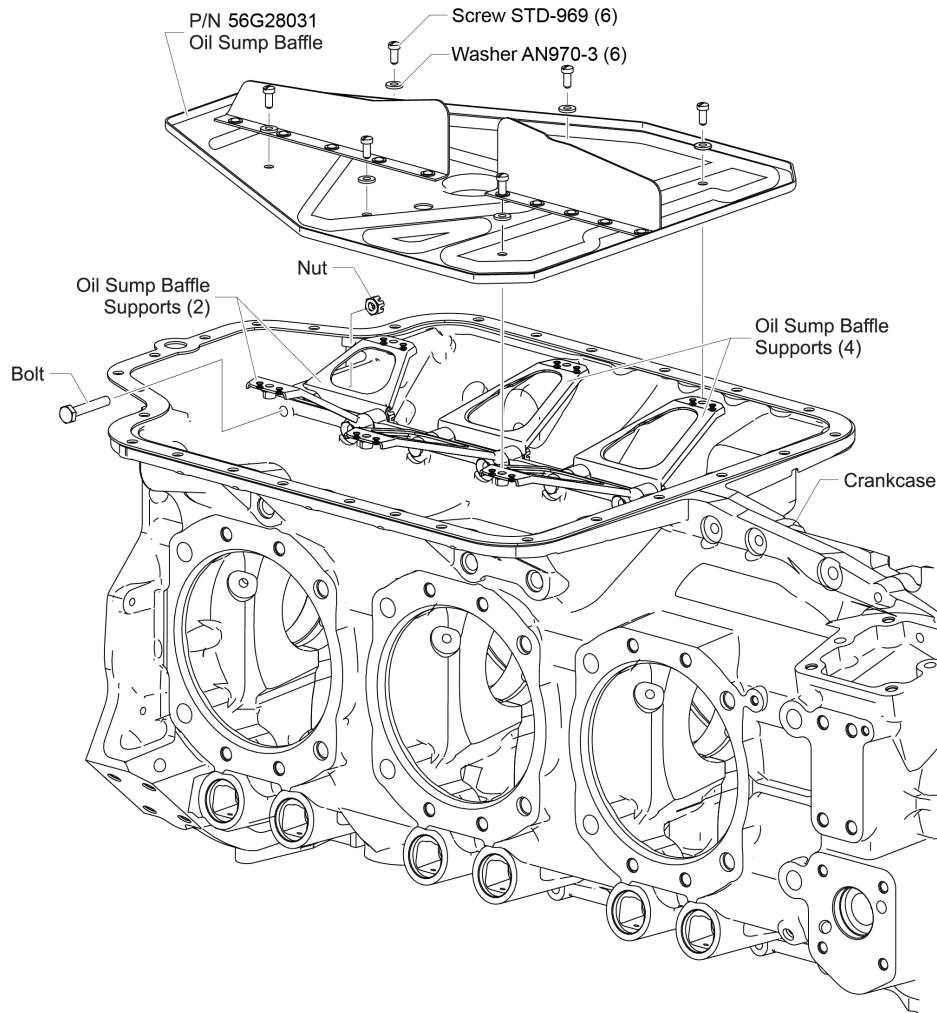


Figure 1
Bottom of Crankcase Showing Assembly of Oil Sump Baffle and Supports

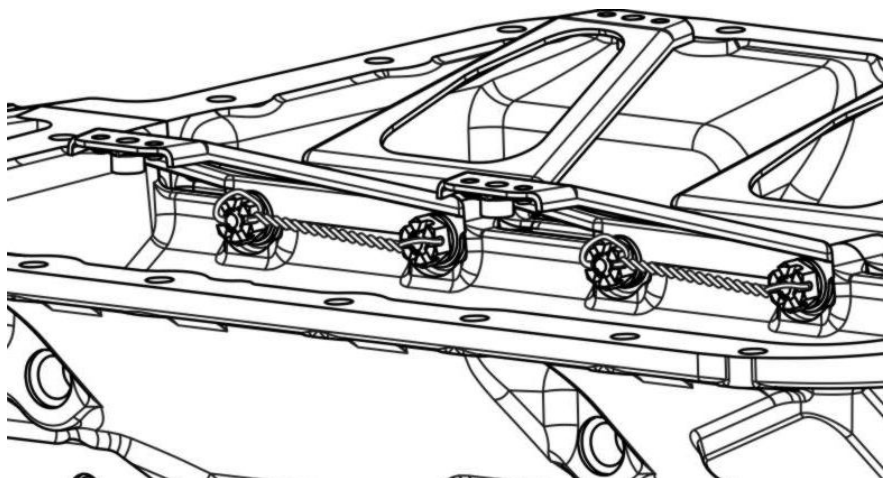


Figure 2
Lockwire Nut Pairs

| ISSUED | | | REVISED | | | PAGE NO. | REVISION | S.I. 1279 |
|--------|-----|------|---------|-----|------|----------|----------|-----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 6 of 8 | D | |

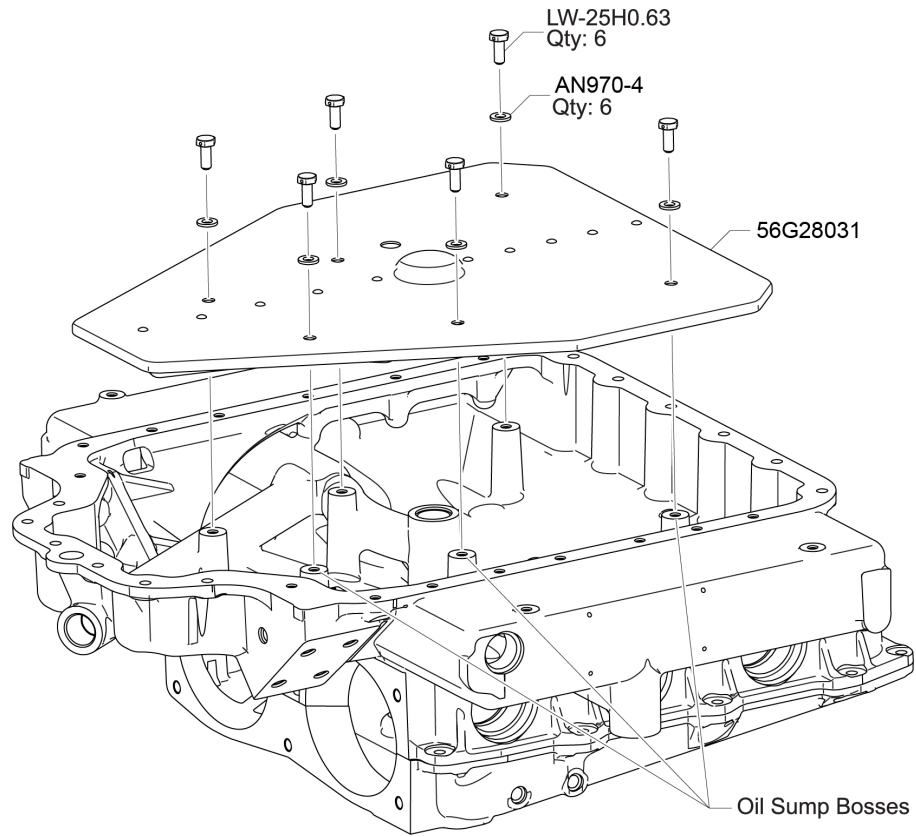


Figure 3
New Oil Sump Baffle P/N 56G28031

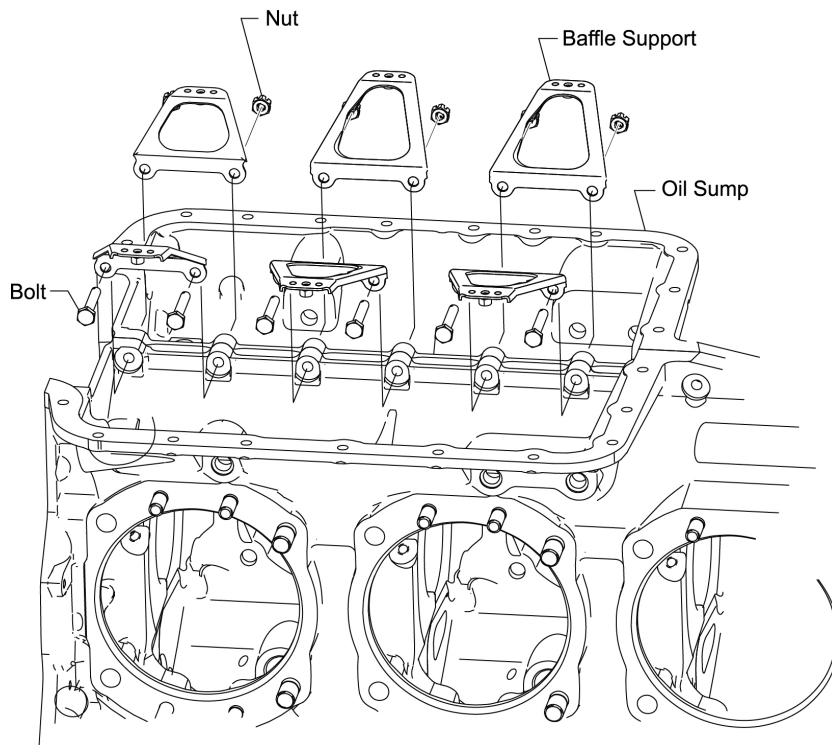


Figure 4
Brackets

| ISSUED | | | REVISED | | | PAGE NO. | REVISION | S.I. 1279 |
|--------|-----|------|---------|-----|------|----------|----------|-----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 7 of 8 | D | |

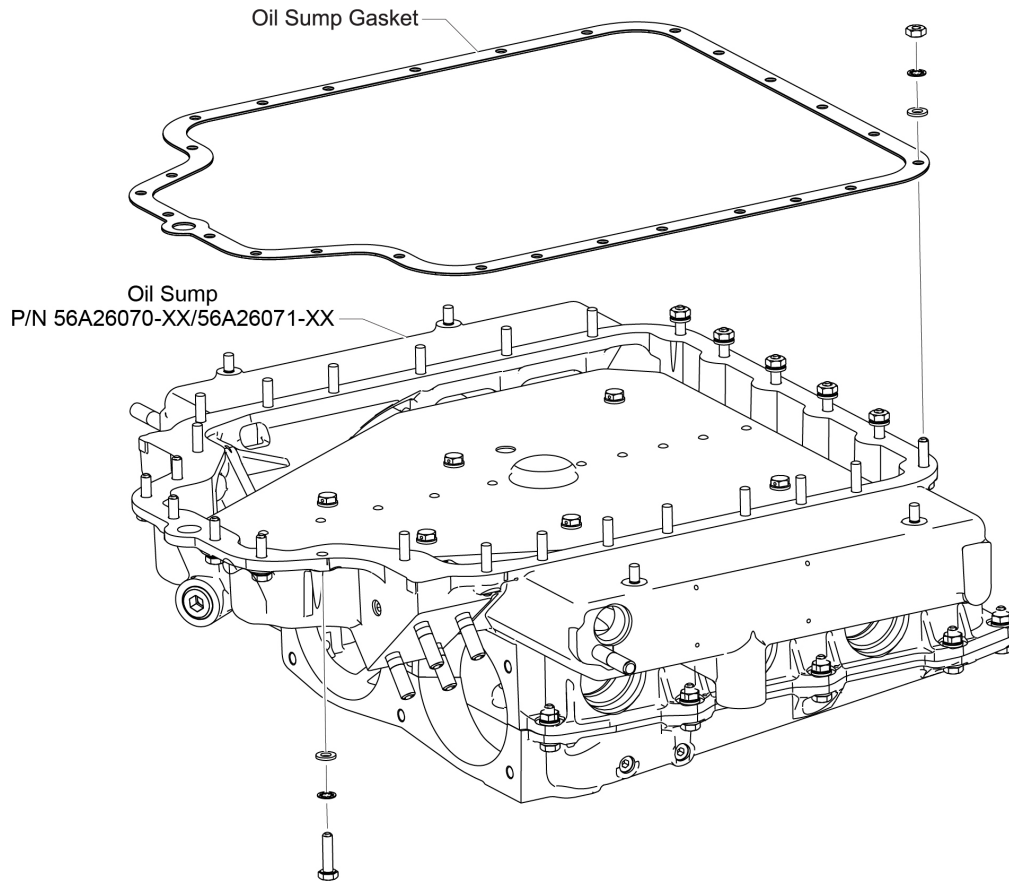


Figure 5
 Oil Sump Assembly P/N 56A26070-XX / 56A26071-XX
 Housing - Oil Sump & Induction

| ISSUED | | | REVISED | | | PAGE NO. | REVISION | S.I. 1279 |
|--------|-----|------|---------|-----|------|----------|----------|-----------|
| MO | DAY | YEAR | MO | DAY | YEAR | | | |
| 09 | 14 | 73 | 05 | 15 | 19 | 8 of 8 | D | |