SERVICE BULLETIN REVISION NOTICE

ENGINE — SEAL ASSEMBLY, NO. 4 BRG FRONT AND HOUSING ASSEMBLY, NO. 4 BRG OIL NOZZLE BLOCK AND NO. 4 BRG OIL NOZZLE ASSEMBLY — REPLACE OR MODIFY TO STOP OIL NOZZLE BLOCK HOUSING BOLTS FROM LIBERATION

Turbojet Engine Service Bulletin No. V2500-ENG-72-0629 Revision No. 3 dated February 25, 2021.

Revision History

Original Issue May 19, 2015

Revision 1 dated January 27, 2016

Revision 2 dated December 15, 2017

Revision 3 dated February 25, 2021

Reason for the Revision

To revise the minimum wall thickness for both holes in the oil nozzle boss in the Accomplishment Instructions.

To add editorial changes that do not affect the technical content of this Service Bulletin.

Effect of Revision on Prior Compliance

None.

This is a Complete Revision (Not Applicable to the SGML version)

The format of this Service Bulletin has been changed from previous versions. This revision shows flow bars and the revision date on the bottom of every page. Technical changes incorporated in this revision are marked with revision bars. The contents are in accordance with the list of effective pages.

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0629

Page	Revision No.	Date
1 thru 28	3	February 25/21

A copy of this Revision Notice and any future revision notices must be filed as a permanent record with your copy of the subject bulletin.

SERVICE BULLETIN

ENGINE — SEAL ASSEMBLY, NO. 4 BRG FRONT AND HOUSING ASSEMBLY, NO. 4 BRG OIL NOZZLE BLOCK AND NO. 4 BRG OIL NOZZLE ASSEMBLY — REPLACE OR MODIFY TO STOP OIL NOZZLE BLOCK HOUSING BOLTS FROM LIBERATION

MODEL APPLICATION

V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

V2500 Series 72-0629

ATA NUMBER

72-42-00

Compliance Category

6

IAE Distribution Code

V2500

Summary

The purpose of this Service Bulletin is to replace or modify the No. 4 bearing front seal assembly, the No. 4 bearing oil nozzle block housing assembly and replace the No. 4 bearing oil nozzle assembly. IAE has been made aware of several Unplanned Engine Removals (UERS) due to Magnetic Chip Detector (MCD) findings or a shift in main oil pressure due to the No. 4 bearing compartment oil nozzle mounting bolts becoming loose. The investigation determined that multiple contributors may have caused the nozzle bolts to liberate. To eliminate all possible contributors, the parts are being changed to the latest engineering design standards.

Planning Information

Effectivity Data

Engine Models Applicable

V2500-A1
Engine Serial Nos. V0001 thru V0361

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5
Engine Serial Nos. V10001 thru V13190
Engine Serial Nos. V15001 thru V17654

V2525-D5, V2528-D5
Engine Serial Nos. V20001 thru V20285

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: No. 4 Bearing Compartment Oil Nozzle Block Housing bolt liberation has been found during engine teardown. The liberated bolts could cause damage to other bearing compartment components, and result in bearing compartment oil loss.
2. Background: 13 events have been found of loose or liberated No. 4 Bearing Compartment Oil Nozzle Block Housing bolts since 2010. The Unscheduled Engine Removals (UERs) were due to chips on the Magnetic Chip Detectors (MCD) or a shift in main oil pressure. The liberated bolts could cause damage and result in compartment oil loss. No High Pressure Turbine (HPT) Thermal distress has been noted on any of these liberated bolt events.
3. Objective: Add screw thread inserts (helical coil inserts) on the No. 4 bearing front seal assembly nozzle mounting boss to secure the bolts, change the bolt material to INCO-718, use a new anti-seize coating on the bolts, change the key washers to flat washers and change the material to a high strength steel, and add a pin in the oil nozzle block housing assembly to ensure correct oil flow direction.
4. Substantiation: The changes introduced by this Service Bulletin were the subject of satisfactory engineering analysis and test. This Service Bulletin complies with the applicable engine certification basis.
5. Effects of Bulletin on:

   Removal/Installation: Not affected.

   Disassembly/Assembly: Affected, see Accomplishment Instructions.

   Cleaning: Not affected.

Inspection/Check: Not affected.

Repair: Not affected.

Testing: Not affected.

6. Supplemental Information

None.

Description

Replace or modify the No. 4 bearing front seal assembly, the No. 4 bearing oil nozzle block housing assembly, and replace the No. 4 bearing nozzle assembly.

NOTE: This Service Bulletin supersedes Reference 11, Service Bulletin V2500-ENG-72-0497. Do this Service Bulletin even if SB 72-0497 has been completed.

Compliance

Category 6

Accomplish when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

The aircraft Type Certificate (TC) holder has been informed of this change.

Manpower

1. In Service

..... Not Applicable.

2. At Overhaul

Accomplishment Instructions.

A. Modify the No. 4 bearing front seal assembly and the No. 4 bearing oil nozzle block housing assembly. .....90 minutes.

Weight and Balance

1. Weight Change

None.

2. Moment Arm

No Effect.

3. Datum

Engine Front Mount Centerline (Power Plant Station (PPS) 100)

Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

Software Accomplishment Summary

Not Applicable.

References

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. ATA Locator — 72-42-30, 72-42-33, and 72-42-34.
2. V2500 Standard Practices and Processes Manual, SPPM, P&W Ref. PN 2A4414, Chapter/Section 70-09-00, 70-11-00.
3. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 72-42-30, 72-42-33, 72-42-34, and 72-43-20.
4. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-42-30, 72-42-33, 72-42-34, and 72-43-20.
5. V2500-D5, Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 72-42-30, 72-42-33, and 72-42-34.
6. V2500 Engine Illustrated Parts Catalogs (V2500-3IA, S-V2500-3IB, S-V2500-3IC), Chapter/Section 72-42-30, 72-42-33, and 72-42-34.
7. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-42-30, 72-42-33, and 72-42-34.
8. V2500-D5 Series Engine Manual, P&W Ref. PN 2A4416, Chapter/Section 72-42-30, 72-42-33, and 72-42-34.
9. IAE V2500 Service Bulletin V2500-ENG-72-0401 (Engine — Provide Nickel Plating On The Number 4 Carbon Seal Housing).
10. IAE V2500 Service Bulletin V2500-ENG-72-0439 (Engine — No. 4 Compartment Strainer Improvement).
11. IAE V2500 Service Bulletin V2500-ENG-72-0497 (Engine — Redesigned Number 4 Bearing Compartment Oil Nozzle Bolt Retention).

Other Publications Affected

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 72-42-30, 72-42-33, and 72-42-34.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-42-30, 72-42-33, and 72-42-34.
3. V2500-D5, Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 72-42-30, 72-42-33, and 72-42-34.

4. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-42-33 Cleaning, Inspection and Repair, to add the new part.
5. V2500-D5 Series Engine Manual, P&W Ref. PN 2A4416, Chapter/Section 72-42-33 Cleaning, Inspection and Repair, to add the new part.

Interchangeability of Parts

Old and new parts are interchangeable only in full sets.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (Yes)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

1. The estimated price of new material is $2,325.74 to do this Service Bulletin when the part modification procedure is used.
2. The estimated price of new material to do this Service Bulletin using new replacement parts is $58,901.22.
3. There is no kit provided to do this Service Bulletin.
4. Part availability information is provided in material data Instructions — Disposition.

Industry Support Program

Not Applicable.

The material data that follows is for each engine.

For V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5 Engines That Did Incorporate Reference 11, Service Bulletin No. V2500-ENG-72-0497:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
2A4325	1	*	SEAL ASSY — NO. 4 BRG FRONT	2A3846 (72-42-33-01-001)	(1)(F)(N)
2A4323	1	55,580.00	.SUPPORT ASSY — NO. 4 BRG SEAL	2A3845 (72-42-33-01-020)	(1)(A)
MS21209F5-10	2	1.06	..INSERT, SCREW THREAD		(A)
2A4319	1		..SUPPORT — NO. 4 BRG SEAL	2A3844 (72-42-33-01-021)	(1)(M)
2A4327-01	1	3,266.00	HOUSING ASSY — NO. 4 BRG OIL NOZZLE BLOCK ASSY	2A3966-01 (72-42-34-01-010)	(1)(A)
2A4326	1		.HOUSING — NO. 4 BRG OIL NOZZLE	2A3965 (72-42-34-01-020)	(1)(M)
	AR		.WIRE OPTION	4W2627	(O1)(C1)
MS9390-080	1	29.40	.PIN		(A)
2A3968-01	1	2,239.00	.OIL NOZZLE ASSY	2A0121 (72-42-34-01-060)	(2)(A)(N)
OR					

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
2A4327-01	1	3,266.00	HOUSING ASSY — NO. 4 BRG OIL NOZZLE BLOCK	2A0896-001 (72-42-34-01-010)	(1)(A)(N)
2A4326	1		.HOUSING — NO. 4 BRG OIL NOZZLE	2A0895 (72-42-34-01-020)	(1)(M)
	AR		.WIRE OPTION	4W2627	(O1)(C1)
MS9390-080	1	29.40	.PIN		(A)
2A3968-01	1	2,239.00	.OIL NOZZLE ASSY	2A0121 (72-42-34-01-060)	(2)(A)(N)
ST5027-08	1	19.10	BOLT	ST1513-05 (72-42-30-01-040)	(2)(A)(N)
	1		WASHER, KEY	MS9581-11 (72-42-30-01-020)	(N)
ST5141-11	1	1.91	WASHER, FLAT		(2)(A)
ST5027-08	1	19.10	BOLT	ST1514-06 (72-42-30-01-080)	(2)(A)(N)
	1		WASHER, KEY	MS9581-10 (72-42-30-01-060)	(C1)
ST5141-11	1	1.91	WASHER, FLAT		(2)(A)
ST1946-027	1	13.20	PREFORMED PACKING	AS3209-027 (72-42-30-01-010)	(E)

The material data that follows is for each engine.

For V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5 Engines That Did NOT Incorporate Reference 11, Service Bulletin No. V2500-ENG-72-0497:

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
2A4325	1	*	SEAL ASSY — NO. 4 BRG FRONT	2A3846 (72-42-33-01-001)	(1)(F)(N)
2A4323	1	55,580.00	.SUPPORT ASSY — NO. 4 BRG SEAL	2A3845 (72-42-33-01-020)	(1)(A)

New PN	Qty	Estimate of Unit Price ($)	Keyword	Old PN	Instructions — Disposition
MS21209F5-10	2	1.06	..INSERT, SCREW THREAD		(A)
2A4319	1		..SUPPORT — NO. 4 BRG SEAL	2A3844 (72-42-33-01-021)	(1)(M)
2A4327-01	1	3,266.00	HOUSING, ASSY — NO. 4 BRG OIL NOZZLE BLOCK	2A0896 (72-42-34-01-010)	(1)(A)(N)
2A4326	1		.HOUSING — NO. 4 BRG OIL NOZZLE	2A0895 (72-42-34-01-020)	(1)(M)
	AR		.WIRE OPTION	4W2627	(O1)(C1)
2A3968-01	1	2,239.00	.OIL NOZZLE ASSY	2A0121 (72-42-34-01-060)	(2)(A)(N)
MS9390-080	1	29.40	.PIN		(A)
ST5027-08	1	19.10	BOLT	ST1513-05 (72-42-30-01-040)	(2)(A)(N)
	1		WASHER, KEY	MS9581-11 (72-42-30-01-020)	(N)
ST5141-11	1	1.91	WASHER, FLAT		(2)(A)
ST5027-08	1	19.10	BOLT	ST1514-06 (72-42-30-01-080)	(2)(A)(N)
	1		WASHER, KEY	MS9581-10 (72-42-30-01-060)	(C1)
ST5141-11	1	1.91	WASHER, FLAT		(2)(A)
ST1946-027	1	13.20	PREFORMED PACKING	AS3209-027 (72-42-30-01-010)	(E)

Modification and Spares Information

Parts Modification Conditions

Estimated part prices are provided when they are available at time of publication. The Estimate of Unit Price is only for planning purposes and does not constitute a firm quotation. An asterisk (*) is shown where part pricing information was unavailable. In either case, contact IAE Spares for firm quotations.

(1) The new part can be obtained by modification of the old part as specified in the Accomplishment Instructions.

(2) The new part is a replacement part only, and cannot be obtained by modification of the old part.

Spare Parts Availability

(A) The new part is available.

(C1) The old part will continue to be supplied for use at other locations.

(E) The old part is an expendable item necessary to do this bulletin.

(F) The new part will be available on a Full Manufacturing lead time quote basis only.

(M) It is possible to get the new part only by modification.

(N) The old part is not available.

(O1) Wire Option, PN 4W2627, consists of Wire, PN AS3214-02 or PN AS44725-2.

Vendor Services or Special Components/Materials

CoMat 04-010 activator/primer and CoMat 04-015 thread locking compound are required to complete this Service Bulletin.

NOTE: EXCEPT FOR WORK OR SUPPLIES TO BE PERFORMED OR FURNISHED BY PRATT & WHITNEY, IT IS UNDERSTOOD THAT PRATT & WHITNEY DOES NOT ENDORSE THE WORK PERFORMED BY THE COMPANY OR COMPANIES NAMED HEREIN OR ANY OTHER COMPANY AND DOES NOT ACCEPT RESPONSIBILITY TO ANY DEGREE FOR THE SELECTION OF SUCH COMPANY OR COMPANIES FOR THE PERFORMANCE OF ANY WORK OR PROCUREMENT OF SUPPLIES.

Tooling — Price and Availability

Special tools are not required to accomplish this Service Bulletin.

Reidentified Parts

Reidentified Parts Data

New PN	Keyword	Old PN
2A4327-01	Housing Assembly — No. 4 Bearing Oil Nozzle Block	2A3966-01
2A4326	.Housing — No. 4 Bearing Oil Nozzle	2A3965
2A4327-01	Housing Assembly — No. 4 Bearing Oil Nozzle Block	2A0896-001
2A4327-01	Housing Assembly — No. 4 Bearing Oil Nozzle Block	2A0896
2A4326	.Housing — No. 4 Bearing Oil Nozzle	2A0895
2A4325	Seal Assy — Front, No. 4 Bearing	2A3846

New PN	Keyword	Old PN
2A4323	.Support Assy — Seal, No. 4 Bearing	2A3845
2A4319	..Support — No. 4 Bearing Seal	2A3844

Other Material Information Data

Not Applicable.

Accomplishment Instructions

NOTE: This Service Bulletin supersedes Reference 11, Service Bulletin V2500-ENG-72-0497. Do this Service Bulletin even if SB 72-0497 has been completed.

1. Replace the No. 4 Bearing Front Seal Assembly, PN 2A3846, with PN 2A4325, or modify the No. 4 Bearing Front Seal Assembly, PN 2A3846 by the procedure that follows: See Figure 1.

   A. Remove No. 4 Bearing Oil Nozzle Housing Block Assembly, PN 2A3966-01, PN 2A0896 or PN 2A0896-001 per Reference 7 or 8, Engine Manual, Chapter/Section TASK 72-42-30-040-001, Subtask 72-42-30-040-056. See Figure 2.

   B. Remove No. 4 Bearing Seal Support Assembly, PN 2A3845, from No. 4 Bearing Front Seal Assembly, PN 2A3846 per Reference 7 or 8, Engine Manual, Chapter/Section 72-42-33-040-001.

   C. Modify the No. 4 Bearing Seal Support Assembly PN 2A3845.

      (1) Measure wall thickness from thread minor diameter to outside of boss for both holes in the oil nozzle boss of No. 4 Bearing Seal Support Assembly, PN 2A3845. See Figure 7. If wall between 5/16-24 (0.3125-24) threaded hole and outside of boss is equal to or more than 0.110 inch (2.794 mm) and if wall between 1/4-28 (0.250-28) threaded hole and outside of boss is equal to or more than 0.110 inch (2.794 mm) continue with this modification. If the wall is less than 0.110 inch (2.794 mm) for either threaded hole, stop, part is not serviceable.

      (2) Position No. 4 Bearing Support Seal Assembly, so that the oil nozzle boss is easily accessible. Datums and orientation are shown in Figures 6 and 7.

      (3) Mask internal oil passages to prevent Foreign Object Damage (FOD) due to machining debris.

      (4) Use a 21/64 [.3281 inch] (8.33 mm) diameter end mill to machine two (2) holes shown in Figure 7.

      (5) Tap the two (2) holes with a bottoming helicoil tap for a 5/16-24 (0.3125-24) screw thread insert (helical coil insert) per Figure 7.

      (6) Measure wall thickness from thread minor diameter to outside of boss for both holes in the No. 4 bearing seal support assembly oil nozzle boss (see Figure 7). If wall is equal to or more than 0.080 inch (2.032 mm), continue with the modification. If it is less than 0.080 inch (2.032 mm), stop, part is not serviceable.

      (7) Machine a 0.125 inch (3.1745 mm) diameter stepped hole as shown in Figure 7.

      (8) Break edges 0.003 – 0.015 inch (0.08 – 0.38 mm).

      (9) Clean per Reference 2, V2500 SPPM Task 70-11-03-300-503.

      (10) Install two (2) Screw Thread Inserts (helical coil inserts), PN MS21209F5-10, in the No. 4 Bearing Seal Support, PN 2A3844, per Reference 7 or 8, V2500 Repair 004 (VRS3080) TASK 72-42-33-300-004.

      (11) Examine the No. 4 Bearing Seal Support Assembly per Reference 7 or 8, V2500 Engine Manual TASK 72-42-33-200-001.

      (12) Identify the modified No. 4 Bearing Front Seal Assembly parts as shown in Table 1. Mark adjacent to the old part numbers per Reference 2, V2500 SPPM Task 70-09-00-400-501. Use the vibropeen method.

Table 1

Keyword	Old PN	New PN
Seal Assy — No. 4 Front	2A3846	2A4325
.Seal Support Assy — No. 4 Bearing	2A3845	2A4323
..Support — No. 4 Brg Seal	2A3844	2A4319

2. Replace the No. 4 Bearing Oil Nozzle Block Housing Assembly, PN 2A3966-01 or PN 2A0896 or PN 2A0896-001, with PN 2A4327-01, or modify by the procedure that follows.

   A. Mask oil passages and the oil nozzle assembly and the No. 4 bearing oil nozzle block housing assembly to protect from machining debris.

   B. Position No. 4 bearing oil nozzle block housing assembly such that oil nozzle points down. Datums and orientation are shown in Figure 4.

   C. Use an end mill to make a 0.336 – 0.346 inch (8.53 – 8.79 mm) diameter bolt hole as shown in Figure 4.

   D. Machine a 0.09225 inch (2.343 mm) diameter stepped hole for a pin as shown in Figure 4.

   E. Break edges 0.003 – 0.015 inch (0.08 – 0.38 mm).

   F. Clean per Reference 2, V2500 SPPM Task 70-11-03-300-503.

   G. Chromate conversion coat bare surfaces per Reference 2, V2500 SPPM Task 70-38-02-300-503, Subtask 70-38-02-300-002.

   H. Press the Pin, PN MS9390-080, into the No. 4 bearing oil nozzle block housing assembly so that the pin protrudes 0.120 – 0.140 inch (3.05 – 3.56 mm) above Datum A as shown in Figure 5.

   I. If No. 4 Bearing Oil Nozzle Block Housing Assembly, PN 2A0896 or PN 2A0896-001 has safety wire retaining the oil nozzle assembly, remove and discard safety wire.

   J. If Oil Nozzle Assembly, PN 2A3968-01, is already installed skip this step, otherwise replace the Oil Nozzle Assembly, PN 2A0121, with PN 2A3968-01 as follows:

      (1) Remove Oil Nozzle Assembly, PN 2A0121.

      CAUTION: IT IS NECESSARY TO COMPLETE ALL HEAT TREATMENT PROCEDURES, AND ALL OTHER PROCEDURES WITH SPECIFIED TEMPERATURES THAT ARE HIGHER THAN THE MAXIMUM OPERATING TEMPERATURE OF THE RETAINING COMPOUND, BEFORE DOING THIS PROCEDURE. THE MAXIMUM OPERATING TEMPERATURE OF THE COMAT 04-015 RETAINING COMPOUND IS 300 DEGREES F (149 DEGREES C).

      NOTE: Surfaces to be joined with thread locking compound must be clean, dry, and without grease, oil, or other contamination. Refer to the manufacturer's instructions to apply CoMat 04-015.

      (2) Apply thread locking compound to new Oil Nozzle Assembly, PN 2A3968-01 as follows.

(3) Apply CoMat 04-010 activator/primer to the oil nozzle assembly threads. Let the primer dry at 67 °F (19 °C) minimum for 4 hours.

(4) Apply CoMat 04-015 thread locking compound to oil nozzle assembly threads.

(5) Install Oil Nozzle Assembly, PN 2A3968-01 into the No. 4 Bearing Oil Nozzle Block Housing Assembly.

(6) Apply a torque of 65.0 – 75.0 lbf-in (7.344 – 8.474 N.m) to the oil nozzle assembly.

(7) Cure the CoMat 04-015 thread locking compound at 67 °F (19 °C) minimum temperature. Cure to fixture occurs in 4 hours, and full cure occurs in 72 – 78 hours.

NOTE: It is permitted to use the following alternative procedure to cure the CoMat 04-015 thread locking compound: Place the part in an oven at 225 – 275 °F (107 – 135 °C), and keep the part in this temperature range for 45 – 120 minutes.

K. Examine No. 4 Bearing Nozzle Block Housing Assembly per Reference 7 or 8, V2500 Engine Manual TASK 72-42-34-200-001.

L. Identify the modified No. 4 Bearing Nozzle Block Housing Assembly parts as shown in Table 2. Mark adjacent to the old part numbers per Reference 2, V2500 SPPM Task 70-09-00-400-501. Use the vibropeen method.

Table 2

Keyword	Old PN (Pre SB 72-0497)	Old PN (Post SB 72-0497)	Old PN (Post SB 72-0497)	New PN
Nozzle Block Housing Assembly — No. 4 Bearing	2A0896	2A0896-001	2A3966-01	2A4327-01
.Housing — No. 4 Bearing Oil Nozzle	2A0895	2A0895	2A3965	2A4326

M. Install the No. 4 Bearing Seal Support Assembly, PN 2A4323, into the No. 4 Bearing Front Seal Assembly, PN 2A4325 per Reference 7 or 8, Engine Manual, Chapter/Section TASK 72-42-33-440-001.

3. Install the No. 4 Bearing Oil Nozzle Block Housing Assembly, PN 2A4327-01, as appropriate per Reference 7 or 8 Engine Manual, Chapter/Section TASK 72-42-30-440-001 with the following modifications to SUBTASK 72-42-30-440-053. See Figures 2 and 3.

A. Refer to Fig. 72-42-30-990-005 and Fig. 72-42-30-990-012.

B. Replace Preformed Packing (Gasket), PN AS3209-027 with PN ST1946-027 in the groove of the No. 4 bearing oil nozzle housing block assembly. See Figure 3.

C. Put the No. 4 bearing oil nozzle block housing assembly in place in the No. 4 bearing front seal support assembly.

CAUTION: DO NOT LUBRICATE BOLT THREADS WITH OIL OR OTHER THREAD LUBRICANT. THE SUPPLIER GIVES BOLTS THAT ARE COATED.

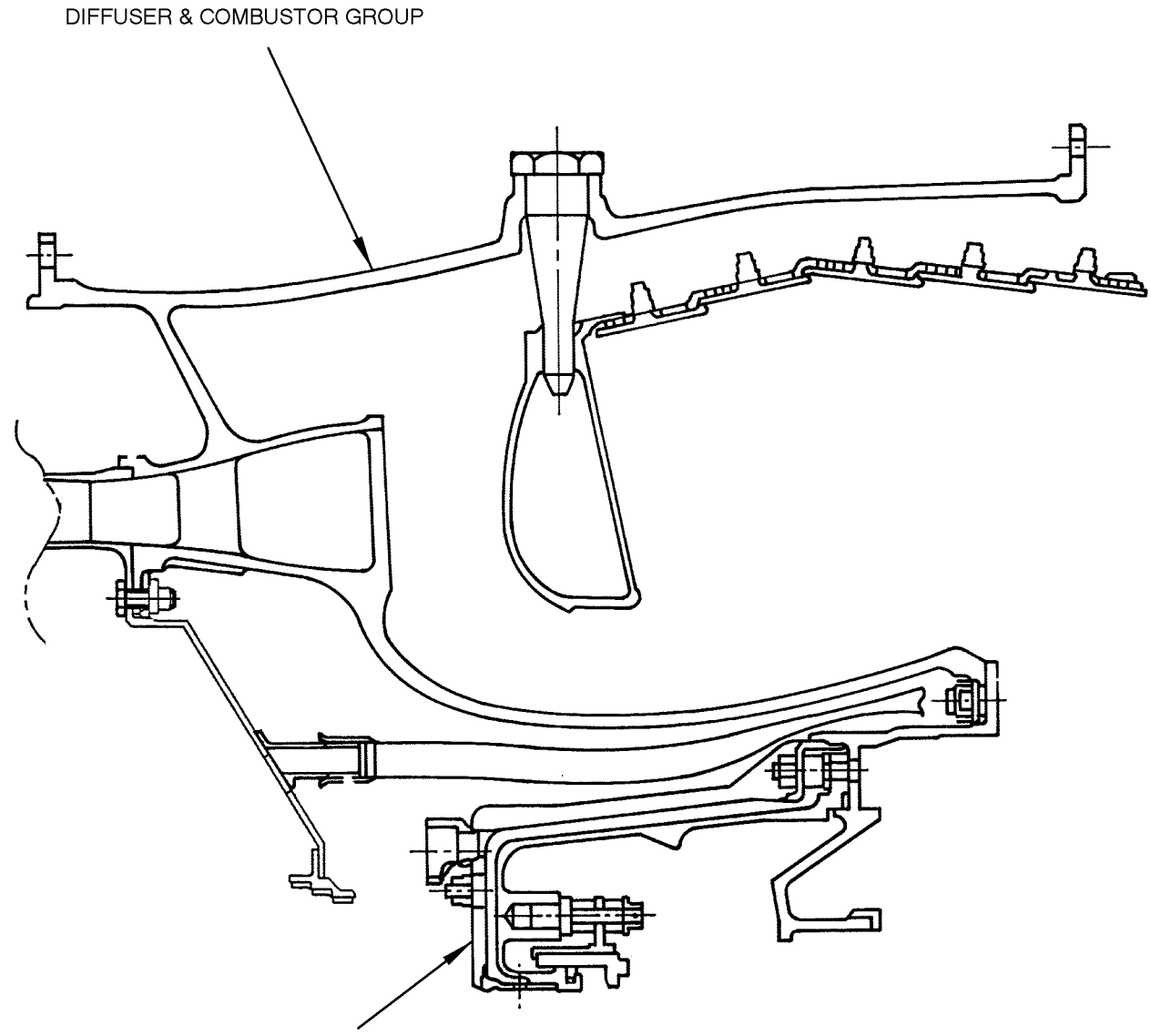
D. Install two (2) Bolts, PN ST5027-08, and two (2) Flat Washers, PN ST5141-11, to secure the No. 4 bearing oil nozzle block housing assembly. See Figure 2.

E. Apply a torque of 125.0 – 140.0 lbf-in (14.123 – 15.818 N.m) to the bolts.

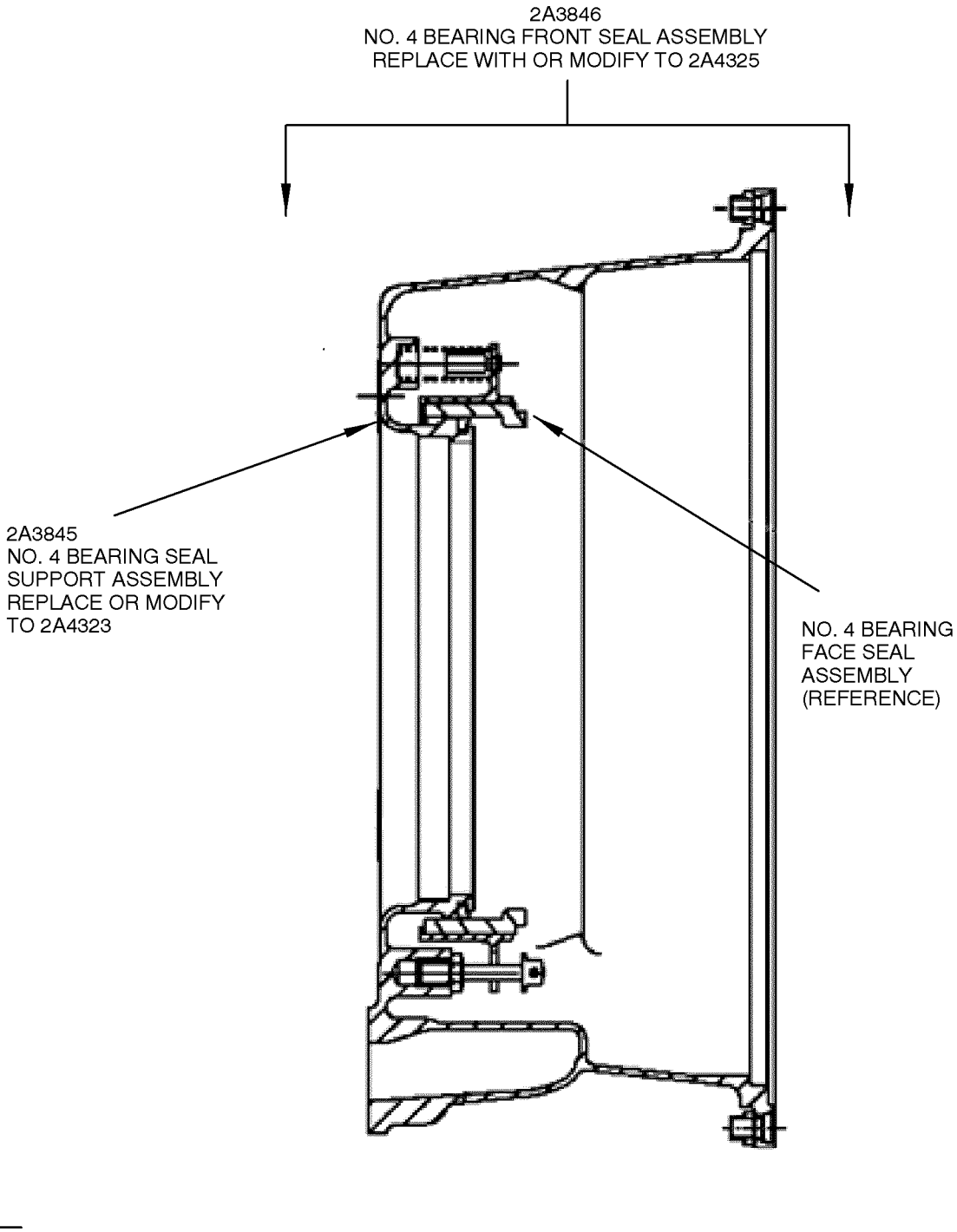
F. Continue to assemble the No. 4 Bearing Front Seal Assembly, PN 2A4325 as appropriate per Reference 7 or 8, Engine Manual, Chapter/Section TASK 72-42-30-440-001.

4. Recording Instructions

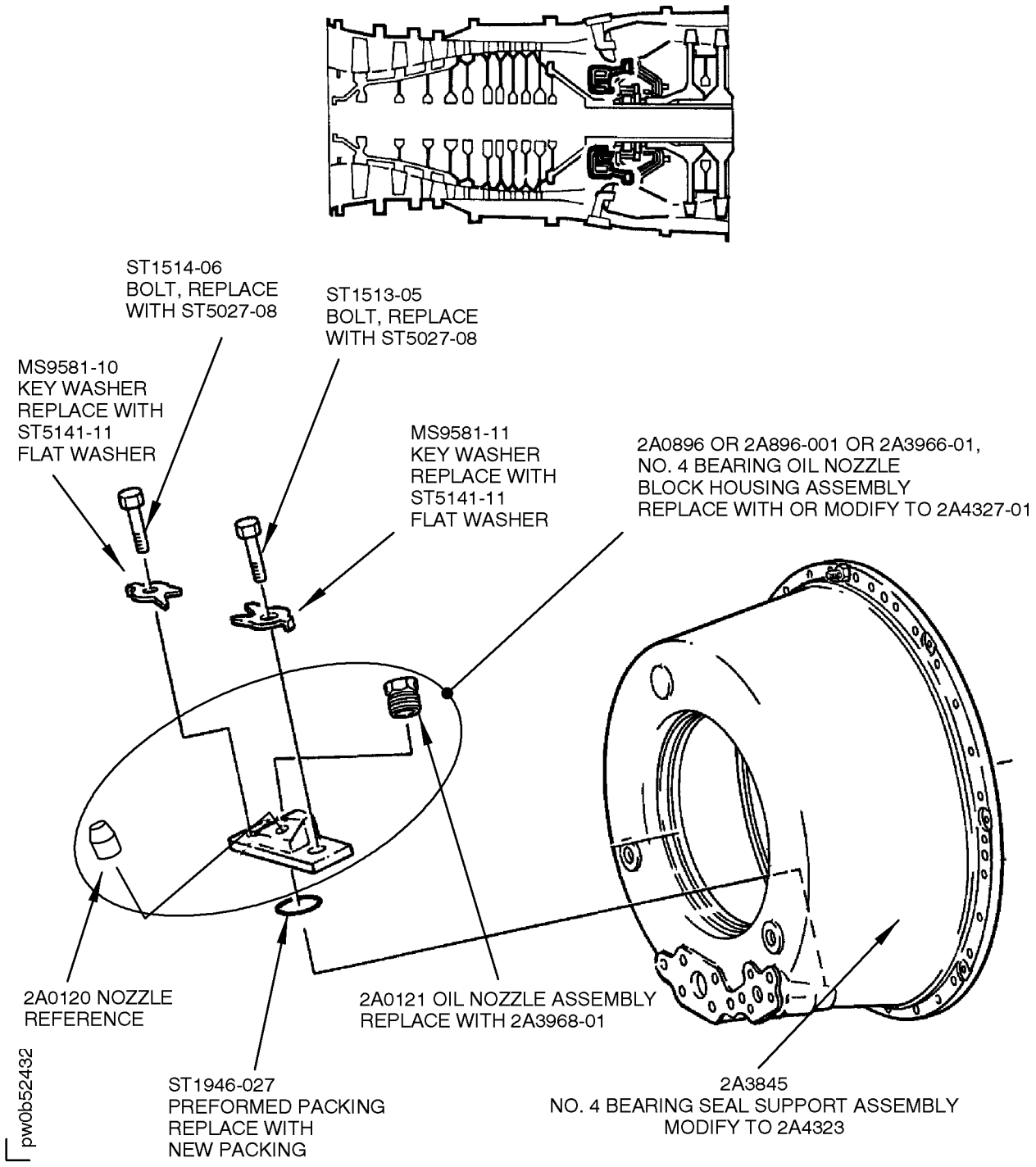
A. A record of accomplishment is required.



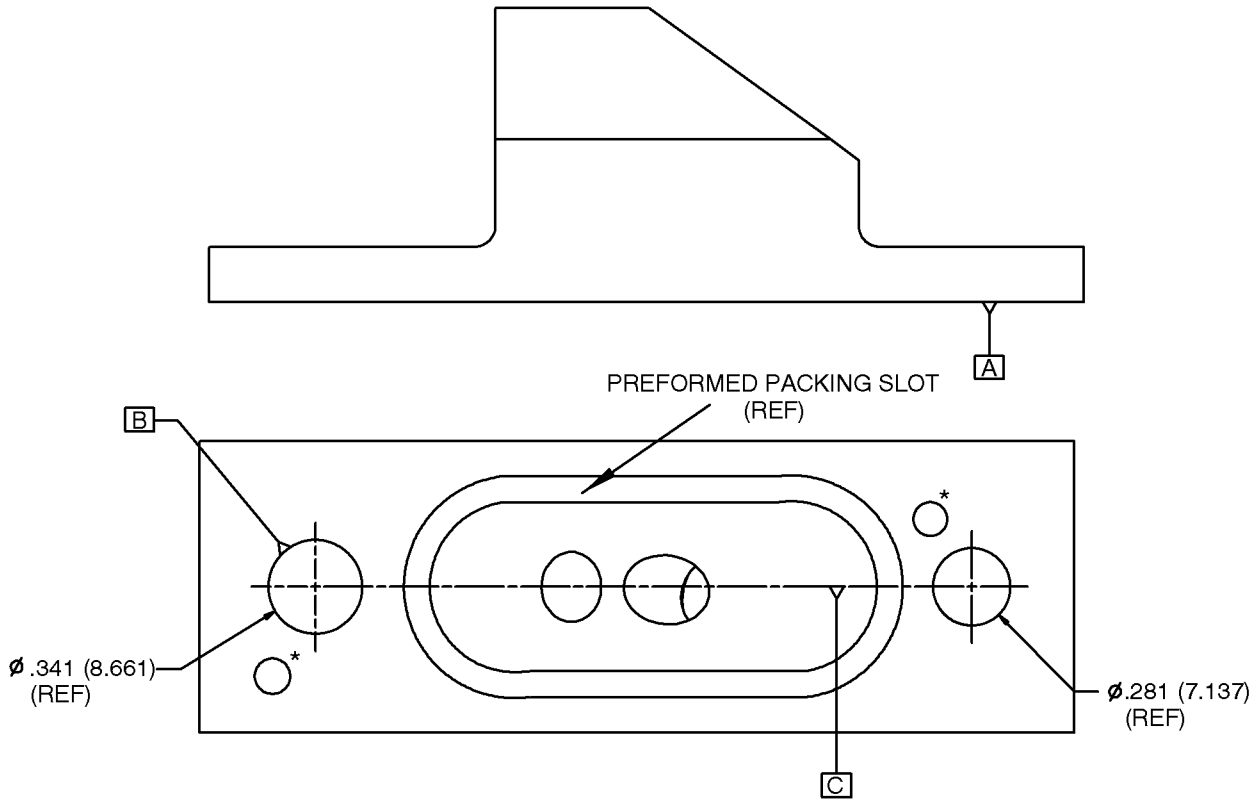
LOCATION OF DIFFUSER AND COMBUSTOR GROUP AND NO. 4 BEARING FRONT SEAL ASSEMBLY
FIGURE 1, SHEET 1



LOCATION OF DIFFUSER AND COMBUSTOR GROUP AND NO. 4
BEARING FRONT SEAL ASSEMBLY
FIGURE 1, SHEET 2



LOCATION OF NO. 4 BEARING OIL NOZZLE BLOCK HOUSING ASSEMBLY
72-42-34
FIGURE 2

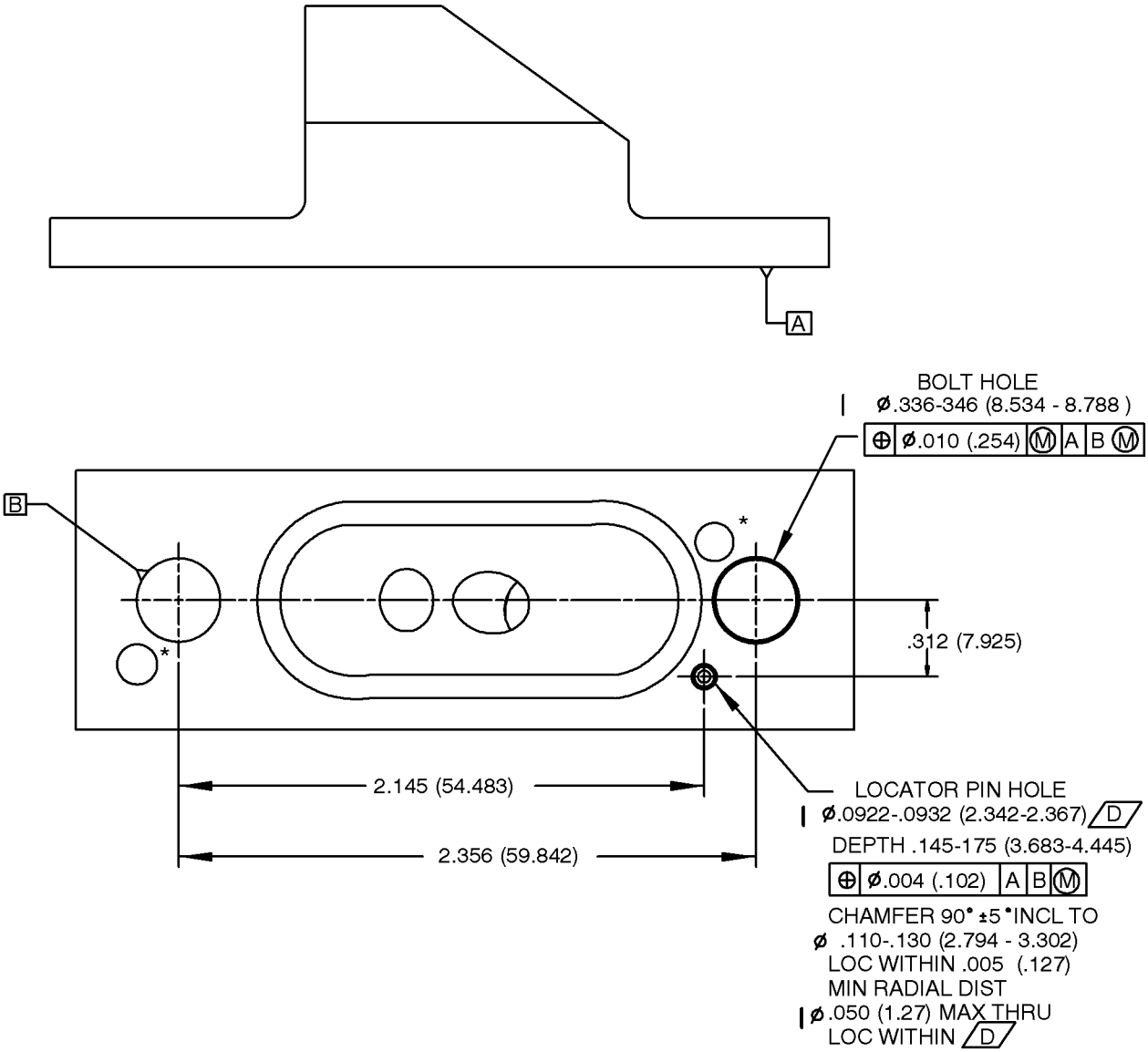


* KEY WASHER HOLES ONLY IN POST SB 72-0497 CONFIGURATION

ALL DIMENSIONS ARE INCHES (MILLIMETERS)

pw0b524325

NO. 4 BEARING OIL NOZZLE BLOCK HOUSING ASSEMBLY, PN 2A0896
FIGURE 3

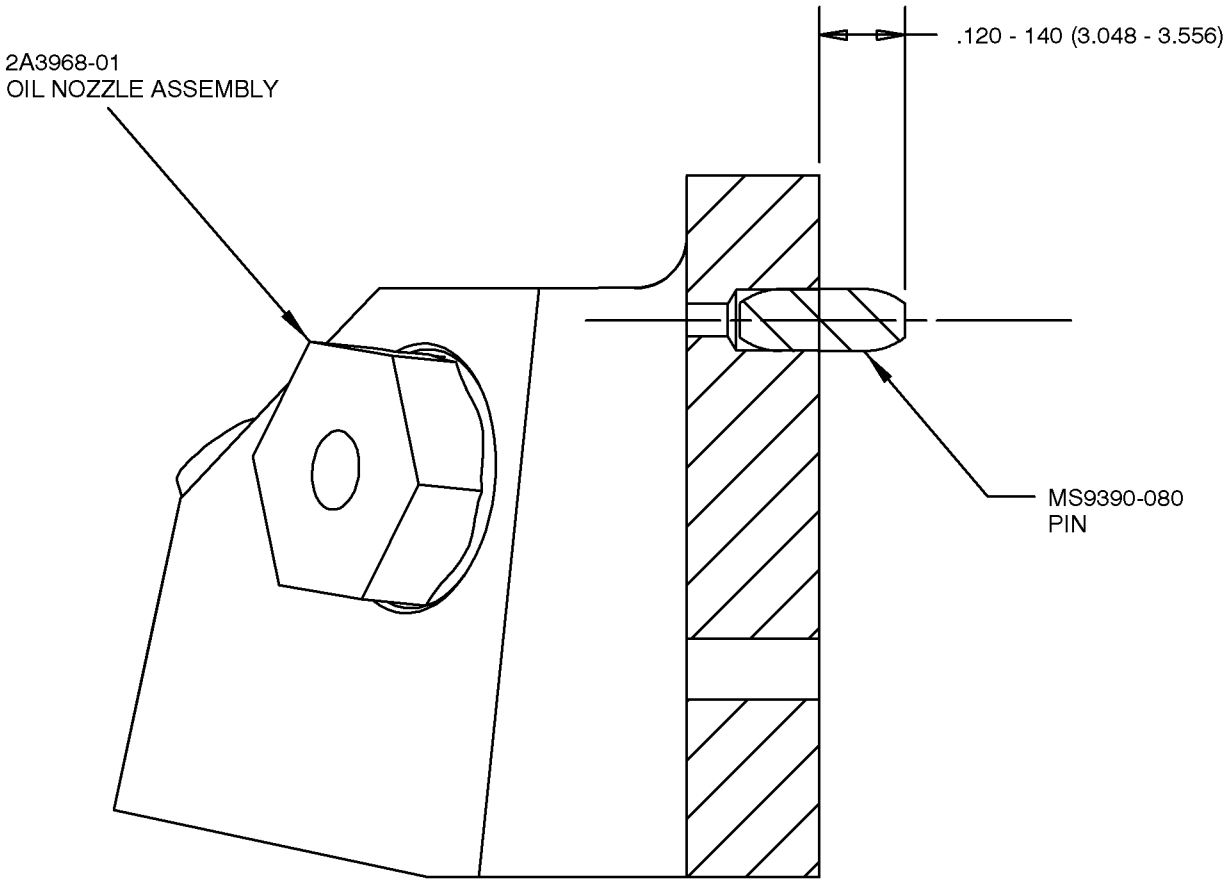


* KEY WASHER HOLES ONLY POST SB 72-0497 CONFIGURATION

ALL DIMENSIONS ARE INCHES (MILLIMETERS)

pw0b524326A

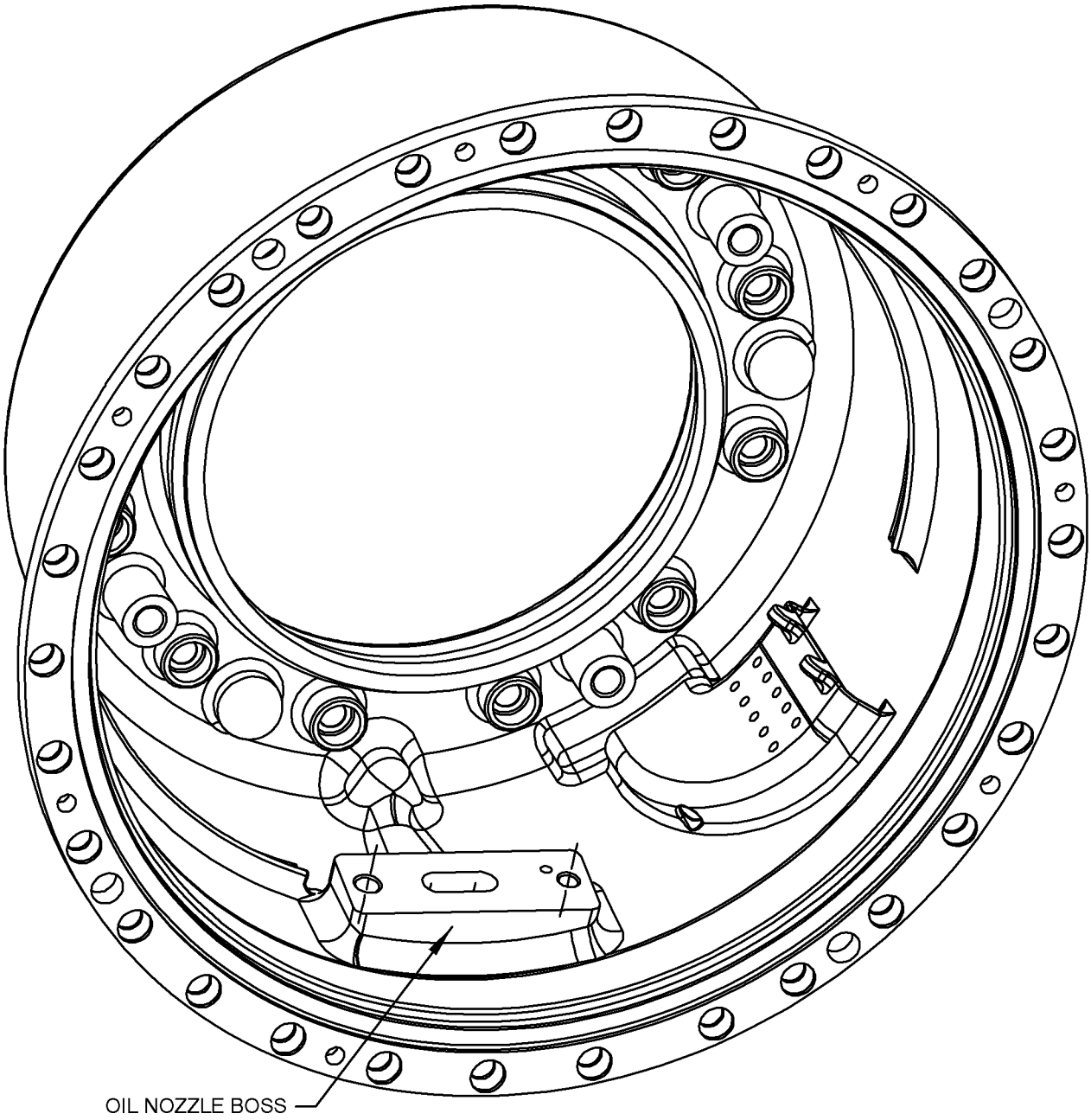
MODIFICATION OF THE NO. 4 BEARING OIL NOZZLE BLOCK HOUSING ASSEMBLY,
PN 2A3966-01, OR PN 2A0896, OR PN 2A0896-001
FIGURE 4



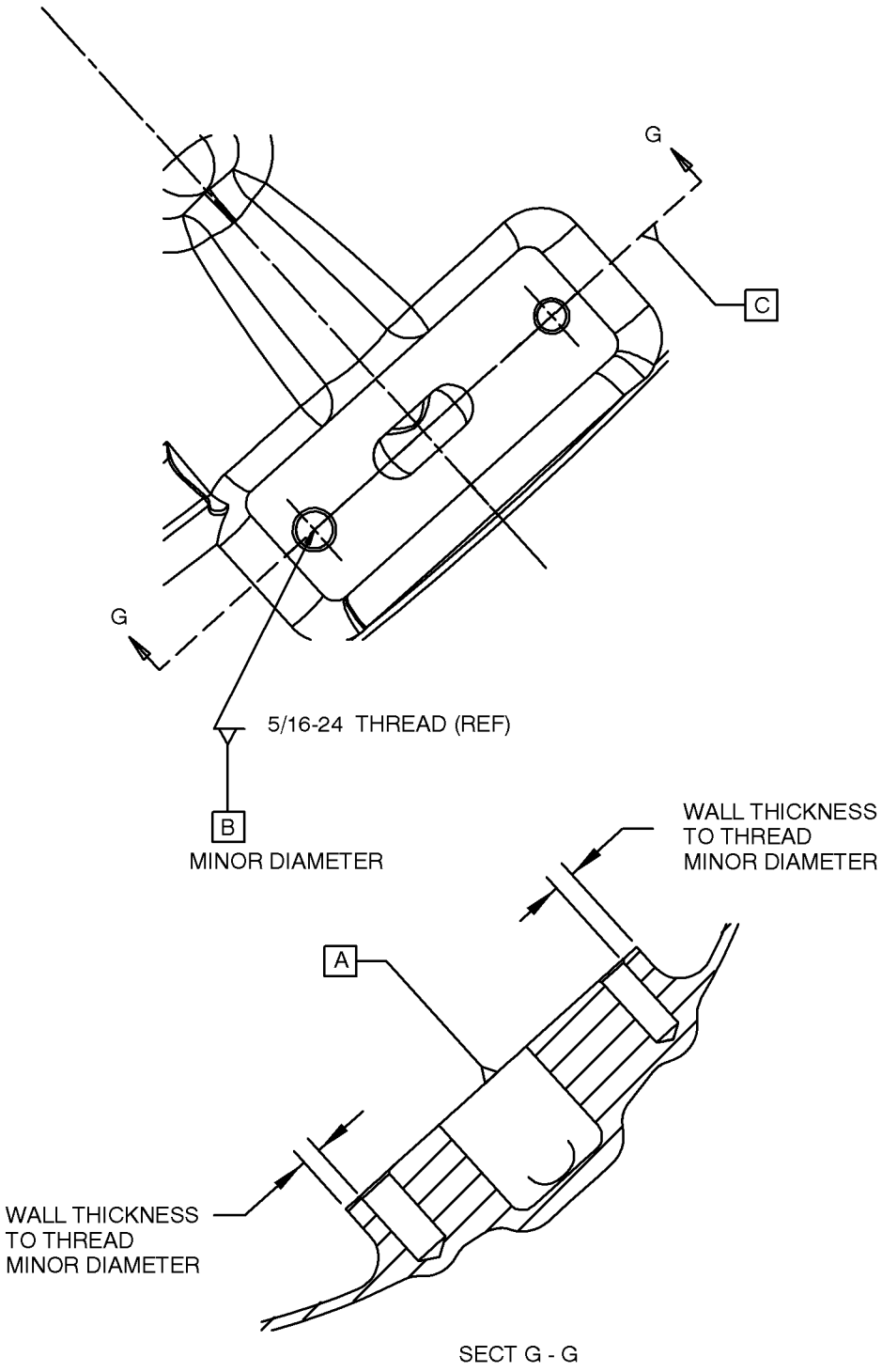
pw0b524328

ALL DIMENSIONS ARE INCHES (MILLIMETERS)

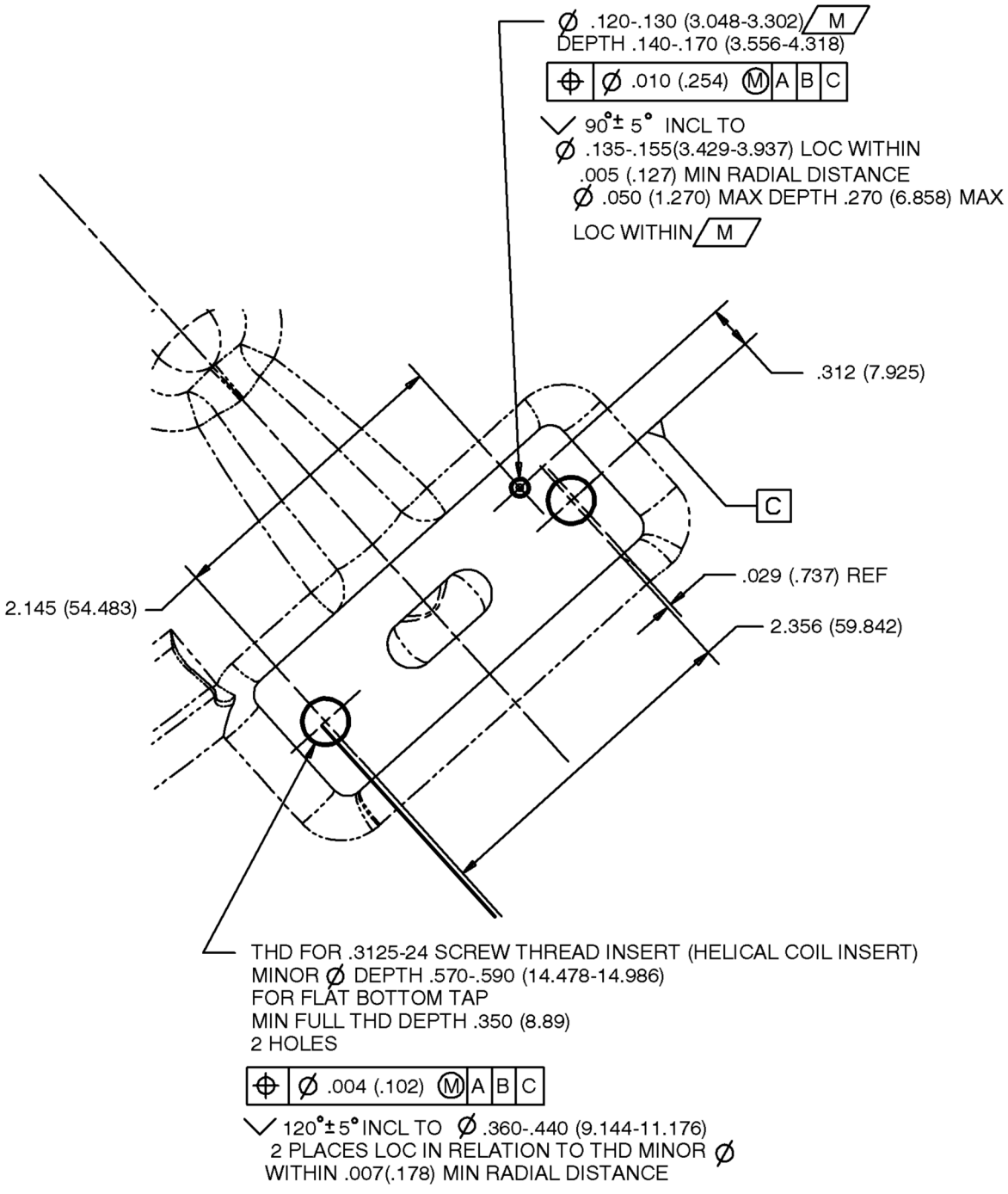
LOCATION OF INSTALLED LOCATOR PIN IN THE NO. 4 BEARING OIL NOZZLE BLOCK HOUSING ASSEMBLY
FIGURE 5



NO. 4 BEARING SEAL SUPPORT ASSEMBLY OIL NOZZLE BOSS
FIGURE 6



MODIFICATION OF THE NO. 4 BEARING SEAL SUPPORT ASSEMBLY, PN 2A3845
FIGURE 7, SHEET 1



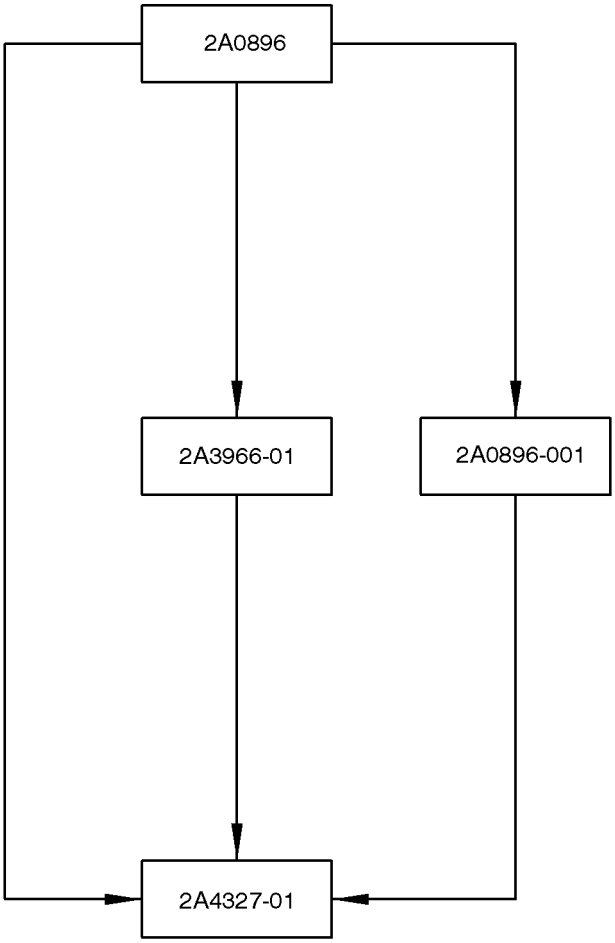
MODIFICATION OF THE NO. 4 BEARING SEAL SUPPORT ASSEMBLY, PN 2A3845
FIGURE 7, SHEET 2

Appendix

Parts Progression To Show the Changed Part in Relation to Other Parts

MODIFICATIONS

BASELINE

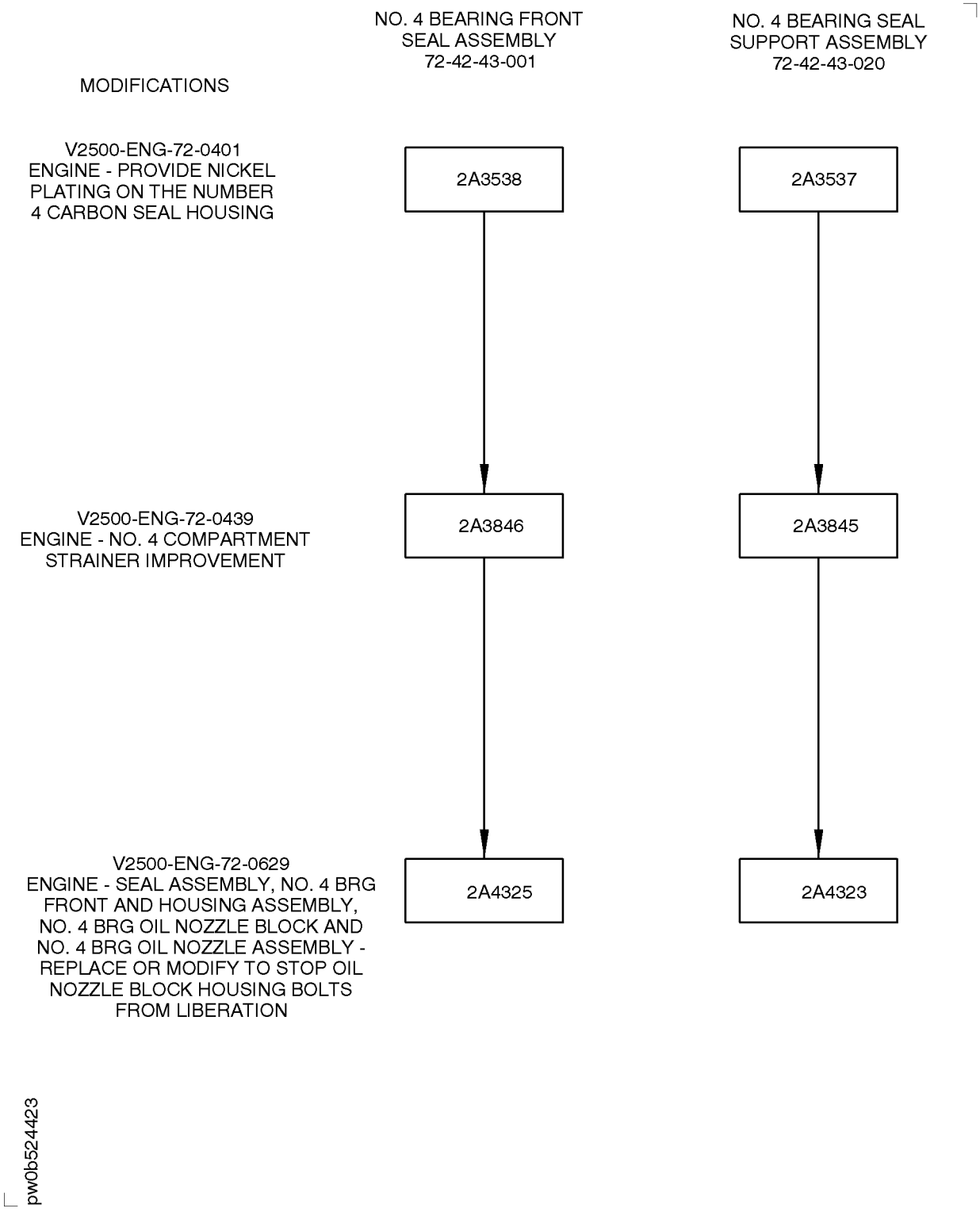


V2500-ENG-72-0497
ENGINE - REDESIGNED NO. 4 BEARING COMPARTMENT OIL NOZZLE BOLT RETENTION

V2500-ENG-72-0629
ENGINE - SEAL ASSEMBLY, NO. 4 BRG FRONT AND HOUSING ASSEMBLY, NO. 4 BRG OIL NOZZLE BLOCK AND NO. 4 BRG OIL NOZZLE ASSEMBLY - REPLACE OR MODIFY TO STOP OIL NOZZLE BLOCK HOUSING BOLTS FROM LIBERATION

pw0b524354

FAMILY TREE — HOUSING ASSEMBLY, NO. 4 BRG NOZZLE HOUSING — CATALOG SEQUENCE 72-42-34 FIGURE 01 ITEM 010
CHART A



FAMILY TREE — NO. 4 BRG SEAL SUPPORT ASSEMBLY — CATALOG SEQUENCE
NO. 72-42-33 FIGURE 01 ITEM 001 AND 020
CHART B

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC04VB010F EC04VB010L EC04VB010Q	FS/CMS/JEJ
1	EC04VB010S	AC/MS
2	EC16VA029	MC/RCM
3	EC20VA010	MC/RCM

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, the following Technical Publications cross reference table is provided.

Technical Publications Cross Reference Table

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
ENGINE MANUAL — A1, A5	All	E-V2500-1IA	2A4407
CMM-EHC — A1, A5	All	EHC-V2500-1IA	2A4409
CMM-FN — A1, A5	All	FN-V2500-1IA	2A4410
CMM-MMC — A1, A5	All	MECH-V2500-1IA	2A4411
CMM-THD — A1, A5	All	THD-V2500-1IA	2A4412
TLM — A1, A5	All	T-V2500-1IA	2A4408
ENGINE MANUAL — D5	All	E-V2500-3IA	2A4416
CMM-EHC — D5	All	EHC-V2500-31A	2A4418
CMM-FN — D5	All	FN-V2500-3IA	2A4419
CMM-MMC — D5	All	MECH-V2500-3IA	2A4420
CMM-THD — D5	All	THD-V2500-3IA	2A4423
TLM — D5	All	T-V2500-3IA	2A4417
SPPM (SPM) — A1, A5, D5	All	SPP-V2500-1IA	2A4414
EIPC — A1	V2500-A1102Q00	S-V2500-1IA	2A4427

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
EIPC — A5	V2522/V2524/V2527M-AQ02	S-V2500-6IA	2A4428
	V2522/V2524/V2527M-AQ03	S-V2500-6IB	
	V2522/V2524/V2527M-SQ02	S-V2500-6SA	
	V2522/V2524/V2527M-SQ03	S-V2500-6SB	
	V2522/V2524/V2527M-SQ04	S-V2500-6NA	
	V2522/V2524/V2527M-SQ05	S-V2500-6NB	
	V2527/V2527E-AQ02	S-V2500-7IA	
	V2527/V2527E-AQ03	S-V2500-7IB	
	V2527/V2527E-SQ02	S-V2500-7SA	
	V2527/V2527E-SQ03	S-V2500-7SB	
	V2527/V2527E-SQ04	S-V2500-7NA	
	V2527/V2527E-SQ05	S-V2500-7NB	
	V2530-AQ02	S-V2500-2IA	
	V2530-AQ03	S-V2500-2IB	
	V2530-SQ02	S-V2500-2SA	
	V2530-SQ03	S-V2500-2SB	
	V2530-SQ04	S-V2500-2NA	
	V2530-SQ05	S-V2500-2NB	
	V2533-AQ02	S-V2500-5IA	
	V2533-AQ03	S-V2500-5IB	
	V2533-SQ02	S-V2500-5SA	
	V2533-SQ03	S-V2500-5SB	
	V2533-SQ04	S-V2500-5NA	
	V2533-SQ05	S-V2500-5NB	
EIPC — D5	V2525/V2528-AQ02	S-V2500-3IA	2A4426
	V2525/V2528-AQ03	S-V2500-3IB	
	V2525/V2528-AQ04	S-V2500-3IC	