

SERVICE BULLETIN

OIL — OIL COOLER, AIR COOLED — REPLACE WITH A MORE DURABLE OIL COOLER

MODEL APPLICATION

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

BULLETIN ISSUE SEQUENCE

V2500 Series 79-0109

ATA NUMBER

79-21-42

IAE PROPRIETARY INFORMATION

This document is the property of International Aero Engines (IAE). You may not possess, use, copy or disclose this document or any information in it, for any purpose, including without limitation to design, manufacture, or repair parts, or obtain FAA or other government approval to do so, without IAE's express written permission. Neither receipt nor possession of this document alone, from any source, constitutes such permission. Possession, use, copying or disclosure by anyone without IAE's express written permission is not authorized and may result in criminal and/or civil liability.

Export Classification: Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).

Supplier Service Bulletin

Sumitomo Precision Products Co., LTD Service Bulletin 79-2514

Compliance Category

6

P&W Distribution Code

V2500

June 29/17

V2500-ENG-79-0109

Page 1 of 11

Summary

The purpose of this Service Bulletin is to replace the Air Cooled Oil Cooler (ACOC) with a more durable one.

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 V18638

Concurrent Requirements

There are no concurrent requirements.

Reason

1. Condition: Minor oil leaks in the ACOC matrix have caused flight delays and cancellations while the ACOC is replaced.
2. Background: The ACOC matrix is exposed to modulated cold air which induces cyclic thermal stress in the matrix flow tubes and separating sheets. This can result in thermal fatigue cracking of the matrix. ACOCs removed for leaking were returned to the OEM supplier. Inspection has shown that nearly all leaks occurred in the matrix corners. High stress levels in these corner locations have been verified by thermal finite element analysis.
3. Objective: Analysis has shown that fatigue life can be improved by switching to a higher strength material for the separating sheets and introducing air flow blockers in the matrix corners.
4. Substantiation: The means of compliance for the ACOC is by similarity and test.
5. Effects of Bulletin on:
 - Removal/Installation: Not Affected.
 - Disassembly/Assembly: Not Affected.
 - Cleaning: Not Affected.
 - Inspection/Check: Not Affected.
 - Repair: Not Affected.
 - Testing: Not Affected.
6. Supplemental Information
 - None.

Description

Replace the ACOC.

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

..... Not Applicable.

Weight and Balance

1. Weight Change

+ 0.4 lbs (0.18 kg)

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 — 79-21-42.
2. Internal Reference No. — 15VI002.
3. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 70-00-00.

4. V2500-A1 Series Illustrated Parts Catalog, P&W Ref. PN 2A4427, Chapter/Section 79-21-42.
5. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 79-21-42.
6. V2500 A1/A5 Series Engine Manual, EM, P&W Ref. PN 2A4407, Chapter/Section 70-00-32.
7. V2500 A1/A5 Aircraft Maintenance Manual, AMM, P&W Ref. PN 2A4407, Chapter/Section 70-00-32, 71-13-00.
8. V2500 Service Bulletin V2500-ENG-79-0050, Engine — Oil — Introduction Of Partial Blanking Of The Air Cooled Oil Cooler (ACOC) Matrix.
9. V2500 Service Bulletin V2500-ENG-79-0094, Engine — Oil — Introduction Of A Redesigned Double Header Air Cooled Oil Cooler.
10. Sumitomo Precision Products Co., LTD Service Bulletin 79-2514.

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 79-21-42.
2. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 79-21-42.

Interchangeability of Parts

Old and new parts are directly interchangeable.

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. There is no kit provided to do this Service Bulletin.
2. Part availability information is provided in material data Instructions — Disposition.

Industry Support Program

There is an industry support exchange program for downchange ACOCs. The reduced price is applicable to incorporation of this Service Bulletin when the old configuration ACOC is removed until June 30, 2024. The replacement unit is supplied by:

Sumitomo Precision Products (SPP) Co., Ltd.

1-10, Fuso-cho, Amagasaki, Hyogo, 660-0891 Japan

Attention: Manager, Product Support Section, International Business Department

Phone: +81-6-6489-5884

Fax: +81-6-6489-5889

In support of the ACOC exchange program a discounted commercial support package will be offered.

ACOC Part Numbers Progression		Exchange Unit Price 2017 (\$)
From	To	
50069001-1 SB 79-0094	50102001-1 SB 79-0109	7,200
50026001-1 SB 79-0050	50102001-1 SB 79-0109	7,200
Previously Upgraded		
50069001-1* SB 79-0094	50102001-1 SB 79-0109	3,500

* Applicable when 50069001-1 was acquired in a previous exchange.

Each customer is requested to contact SPP at the address shown below to discuss a detailed retrofit plan.

Sumitomo Precision Products Co., Ltd.

1-10 Fuso-cho, Amagasaki, Hyogo 660-0891

Japan

Attn: Manager, Product Support Section Civil Aerospace Department

Tel: +81-6-6489-5884

Fax: +81-6-6489-5889

E-Mail: nakano-y@spp.co.jp

June 29/17

V2500-ENG-79-0109

Page 5

IAE PROPRIETARY INFORMATION

© IAE International Aero Engines AG (date as above). All rights reserved.
Not subject to the EAR per 15 C.F.R Chapter 1, Part 734.3(b)(3).

Parts should be ordered directly from SPP. When ordering the new part, the customer is requested to return the old or current configuration ACOC S/N and provide the Engine S/N from where the unit was removed.

The material data that follows is for each engine.

For V2500-A1 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN	Instructions — Disposition
50102001-1	1	23,229.10	COOLER — OIL, AIR COOLED	50026001-1 (79-21-42-01-100 B)	(2)(A)(N)
			OR		
50102001-1	1	23,229.10	COOLER — OIL, AIR COOLED	50069001-1 (79-21-42-01-100 C)	(2)(A)(N)

The material data that follows is for each engine.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN	Instructions — Disposition
50102001-1	1	23,229.10	COOLER — OIL, AIR COOLED	50026001-1 (79-21-42-01-100 B)	(2)(A)(N)
			OR		
50102001-1	1	23,229.10	COOLER — OIL, AIR COOLED	50069001-1 (79-21-42-01-100 C)	(2)(A)(N)

Instructions/Disposition Code Statements:

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.

(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.

(N) The old part is not available.

Vendor Services or Special Components/Materials

Vendor Services or Special Components/Materials

P&W Designation	Vendor Designation	Name	Vendor Name & Address
50102001-1	50102001-1	COOLER — OIL, AIR COOLED	Sumitomo Precision Products Co., Ltd 1-10, Fuso-cho Amagasaki, Hyogo, 660-0891 Japan www.spp.co.jp
	79-2514	SERVICE BULLETIN	
Vendor Manufacturer's Code: SG215 See Illustrated Parts Catalog Vendor Manufacturer's Code List			

NOTE: EXCEPT FOR WORK OR SUPPLIES TO BE PERFORMED OR FURNISHED BY IAE, IT IS UNDERSTOOD THAT IAE 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

Not Applicable.

Other Material Information Data

Not Applicable.

Accomplishment Instructions

For Engines Installed on Aircraft

WARNING: BE CAREFUL WHEN YOU WORK ON THE ENGINE AFTER SHUTDOWN. THE ENGINE CAN REMAIN HOT FOR A LONG TIME. IF YOU DO NOT OBEY THIS WARNING INJURY CAN OCCUR.

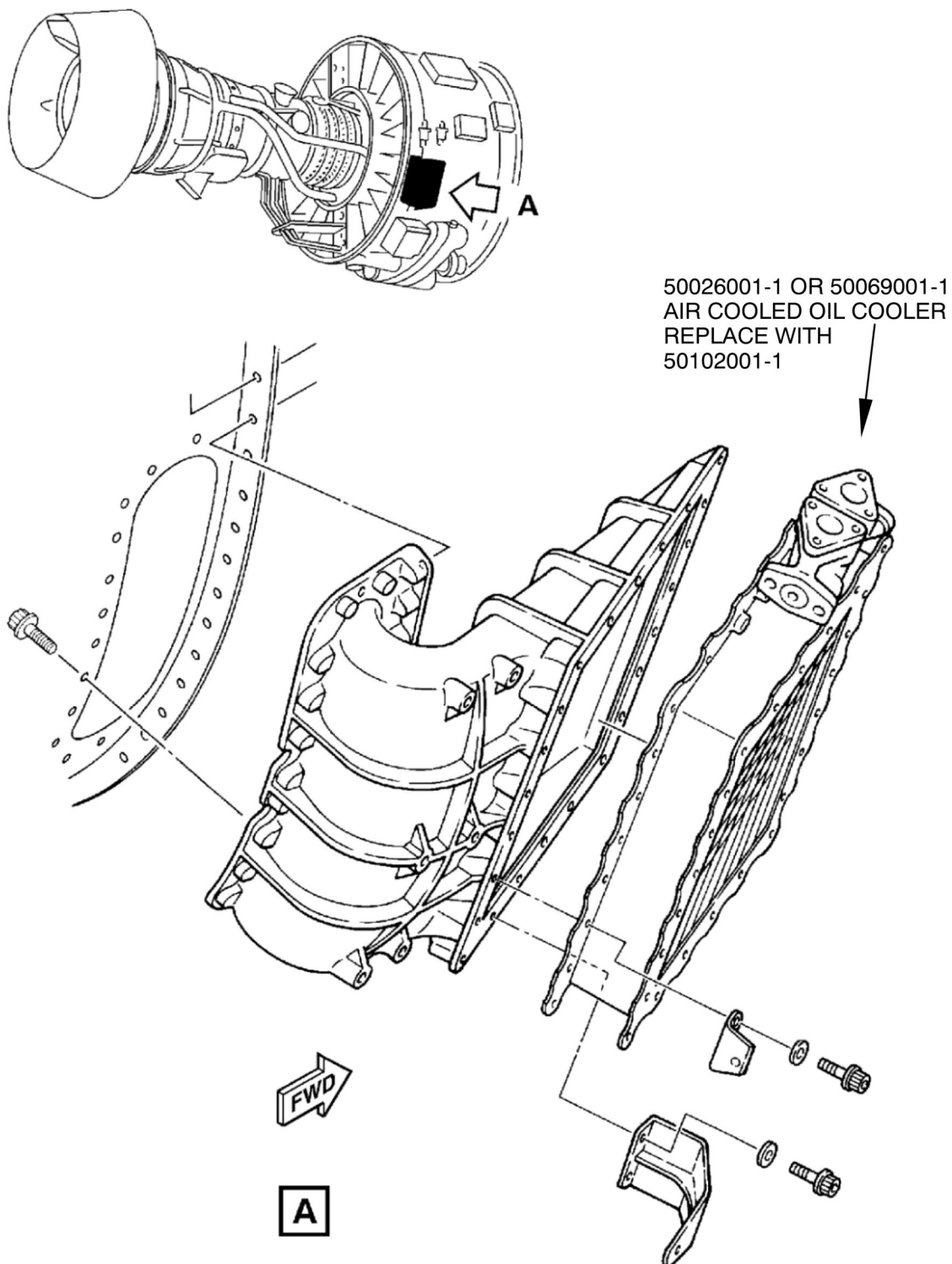
REFER TO MSDS FOR ALL MATERIAL USED AND THE MANUFACTURERS SAFETY INSTRUCTIONS FOR ALL EQUIPMENT USED. IF YOU DO NOT OBEY THIS WARNING INJURY CAN OCCUR.

NOTE: Service bulletin incorporation on engines installed on aircraft may be desirable and should be individually evaluated.

1. Replace the ACOC, PN 50026001-1 or PN 50069001-1 with PN 50102001-1 refer to Reference 7, AMM, Chapter/Section 70-00-32. See Figure 1.
2. Recording Instructions
 - A. A record of accomplishment is required.

For Engines Not Installed on Aircraft

1. Replace the ACOC, PN 50026001-1 or PN 50069001-1 with PN 50102001-1 refer to Reference 6, EM, Chapter/Section 70-00-32. See Figure 1.
2. Recording Instructions
 - A. A record of accomplishment is required.



B526598

LOCATION OF THE AIR COOLED OIL COOLER
79-21-42
FIGURE 1

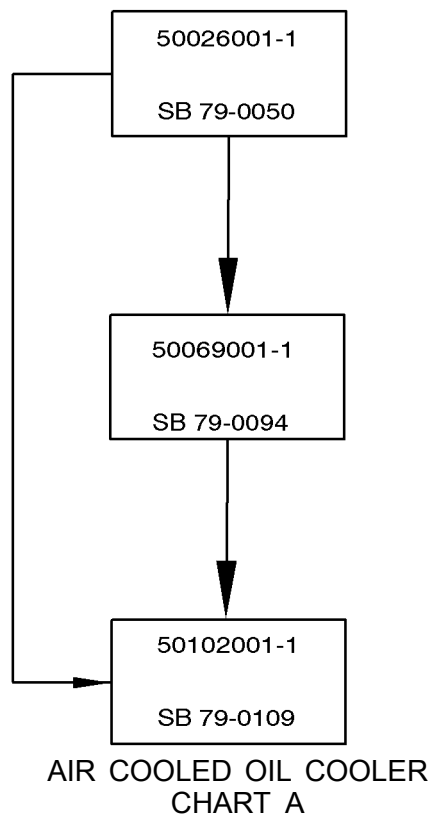
June 29/17

V2500-ENG-79-0109

Page 9

Appendix

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



B526594

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC15VI002	FDS/JAC

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

June 29/17

V2500-ENG-79-0109

Page 10

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
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
SPPM (SPM) — A1, A5, D5	All	SPP-V2500-1IA	2A4414
EIPC — A1	V2500-A1102Q00	S-V2500-1IA	2A4427
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	