P U B L I C A T I O N T R A N S M I T T A L

RR-DERBY

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DATER Jun. 3/03

V2500-A1/A5 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits Revision 1 to Service Bulletin EV2500-73-0144 and Revision 1 to the Supplement

Document History

Service Bulletin Revision Status		Supplement Revision Status	
Initial Issue	Mar.19/99	Initial Issue	Mar.19/99

Bulletin Revision 1

Remove	Incorporate	Reason for change
All pages of the Service Bulletin	Pages 1 to 8 of the Service Bulletin	Material Information updated to avoid unnecessary scrapping of service use components.

Supplement Revision 1

Remove	Incorporate	Reason for change
All pages	Page 1	Material Information updated to avoid unnecessary scrapping of service use components.

V2500-ENG-73-0144

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise Publication Services, Rolls-Royce plc, Derby, England

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 1 to the Bulletin and Revision 1 to the Supplement are as follows:

	Page	Revision Number	Revision Date
	Bulletin		
R	1	1	Jun.3/03
R	2	1	Jun.3/03
R	3	1	Jun.3/03
R	4	1	Jun.3/03
R	5	1	Jun.3/03
R	6	1	Jun.3/03
R	7	1	Jun.3/03
R	8	1	Jun.3/03
	Supplement		
R	1	1	Jun.3/03

ENGINE FUEL AND CONTROL - FUEL NOZZLE - INTRODUCTION OF REVISED SUPPORT BRACKETS FOR THE TURBINE COOLING AIR PIPE

1. Planning Information

A. Effectivity

(1) Airbus A319

V2522-A5, V2524-A5 Engines prior to Serial No. V10500.

(2) Airbus A320

(a) V2500-A1 Engines prior to Serial No. V0362

(b) V2527-A5, V2527E-A5 Engines prior to Serial No. V10500.

(3) Airbus A321

V2530-A5, V2533-A5 Engines prior to Serial No. V10500.

B. Concurrent Requirements

This Service Bulletin must be installed before or at the same time as Service Bulletin ENG 73-0131. (Refer to 1. L. References (4)).

C. Reason

(1) Problem

On the diffuser case, insufficient clearance can exist between two support brackets for the turbine cooling air (TCA) pipe and adjacent fuel manifold tubes.

(2) Evidence

The problem has been found during engine build.

(3) Substantiation

A satisfactory engineering analysis and stress assessment have been done for the changes introduced by this Service Bulletin.

(4) Objective

The purpose of this Service Bulletin is to make engine build easier.

(5) Effect of Bulletin on:

(a) Operation

Not affected.

(b) Maintenance

Not affected.

(c) Overhaul

Affected.

(d) Repair Schemes

Not affected.

(e) Interchangeability

Not affected.

(f) Fits and Clearances

Not affected.

D. Description

(1) The TCA No. 1 bracket has been revised, the changes introduced are as follows:

(a) The side adjacent to the fixing holes is scalloped.

(b) The length of the side adjacent to the fixing holes is reduced.

(2) The TCA No. 4 bracket has been revised, the changes introduced are as follows:

(a) The side adjacent to the fixing holes is scalloped.

(b) The length of the side adjacent to the fixing holes is increased.

(c) The distance of the bend radius from the datum point is increased.

(3) The existing TCA No. 1 bracket can be reworked. (Refer to Figure 1).

E. Compliance

Category Code 4.

Accomplish at the first visit of an engine or module to a maintenance base that can comply with the accomplishment instructions. Accomplish regardless of the planned maintenance action or the reason for engine removal.

F. Approval

The part number changes and/or part modification are given in Section 2 and 3 of this Service Bulletin. They comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine models listed.

G. Manpower

Estimate of manhours necessary to embody this Service Bulletin in full:

(1) In service

(a) To gain access

16 minutes

(b) To embody

30 minutes

(c) To return engine to a serviceable condition

20 minutes

(d) Total

1 hour 06 minutes

(2) At Overhaul:

No additional time is necessary to embody this Service Bulletin.

NOTE: It is possible to get access to the parts affected by this Service Bulletin at overhaul.

H. Material - Price and Availability

(1) A modification kit is not necessary.

R (2) For prices and availability of future spares refer to Supplement to this
R bulletin.

I. Tooling - Price and Availability

Special tools are not necessary.

J. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

Not affected.

(3) Datum

Engine front mount centreline (Power Plant Station (PPS) 100).

K. Electrical Load Data

The aircraft electrical load is not affected by this Service Bulletin.

L. References

(1) Internal Reference Number - EC98VR024.

(2) Standard Practices Manual (SPM):

(a) TASK 70-90-00-400-501, SUBTASK 70-09-00-400-001.

(b) TASK 70-23-05-230-501.

(c) TASK 70-11-03-300-503.

(3) A1/A5 Engine Manual (EM), Chapter/Section 72-42-00, Disassembly and Assembly.

(4) V2500 Service Bulletin:

ENG 73-0131 ENGINE - FUEL AND CONTROL - REPLACE CERTAIN FUEL NOZZLE SUPPLY MANIFOLD ASSEMBLIES AND THE RELATED ATTACHING HARDWARE.

(5) ATA Locator - 73-13-00.

M. Other Publications Affected

(1) Illustrated Parts Catalogue (IPC), Chapter/Section 73-13-41.

(2) Component Maintenance Manual (CMM) - Miscellaneous Mechanical (MM) - Chapter/Section 73-13-41, Cleaning, Inspection/Check and Repair.

2. Material Information

A. Kits necessary for this Service Bulletin:

None.

B. Parts affected by this Service Bulletin:

73-13-41

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01120	6A7452	1	Bracket - TCA No. 1	-	6A6559	(A)(D) (S1)(1D)
01400	6A7453	1	Bracket - TCA No. 4	-	6A6556	(A)(C) (E)(S1)

C. Instruction Disposition Codes:

(A) Old part will be discontinued.

(C) New part will be available from November 1998.

(D) New part alternative to 2A1466.

(E) New part alternative to 2A1488.

(S1) Old and new parts are freely and fully interchangeable.

(1D) Old part can be reworked and re-identified with the new part number.

3. Accomplishment Instructions

A. Rework Instructions

(1) Consumable Materials

CoMat 02-124 - Marking ink

CoMat 06-022 - Fluorescent penetrant

(2) Standard Equipment

Chemical cleaning equipment

Standard workshop equipment

Penetrant crack test equipment

Vibro-engraving equipment

(3) Rework the parts that follow:

6A6559, Bracket - TCA No. 1, (Refer to 73-13-41, Fig/Item 01-120)

PROCEDURE	RELATED DATA
(a) Chemically clean the bracket.	Use chemical cleaning equipment. Refer to the Standard Practices Manual (SPM), TASK 70-11-03-300-503.
(b) Apply marking ink in the area(s) of the bracket to be reworked.	Use standard workshop equipment. Refer to Fig 1.
(c) Mark off the area(s) of the bracket to be removed.	Use standard workshop equipment. Refer to Fig 1.
(d) Rework the bracket in the area(s) shown.	Use standard workshop equipment. Refer to Fig 1.
(e) Remove sharp edges.	Use standard workshop equipment. Refer to Fig 1.
(f) Chemically clean the bracket.	Use chemical cleaning equipment. Refer to the Standard Practices Manual (SPM), TASK 70-11-03-300-503.

(g)	Do a local penetrant crack test on the reworked area.	Use CoMat 06-22 fluorescent penetrant, with penetrant crack test equipment. Refer to the Standard Practices Manual (SPM), TASK 70-23-05-230-501.
	(i) Reject the bracket if cracks are found.	
(h)	Visually examine and measure the dimensions of the reworked area(s).	Refer to Fig 1.
(i)	Cancel the existing part number and identify with the new part number.	Use vibro-engraving equipment. refer to the Standard Practices Manual (SPM), TASK 70-09-00-400-501, SUBTASK 70-09-00-400-001.

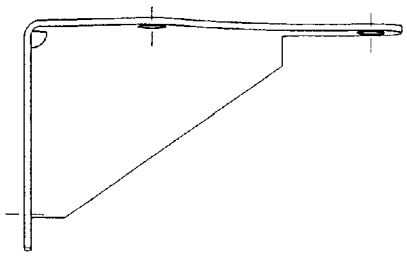
Existing Part No.	New Part No.
6A6559	6A7452

B. Assembly Instructions

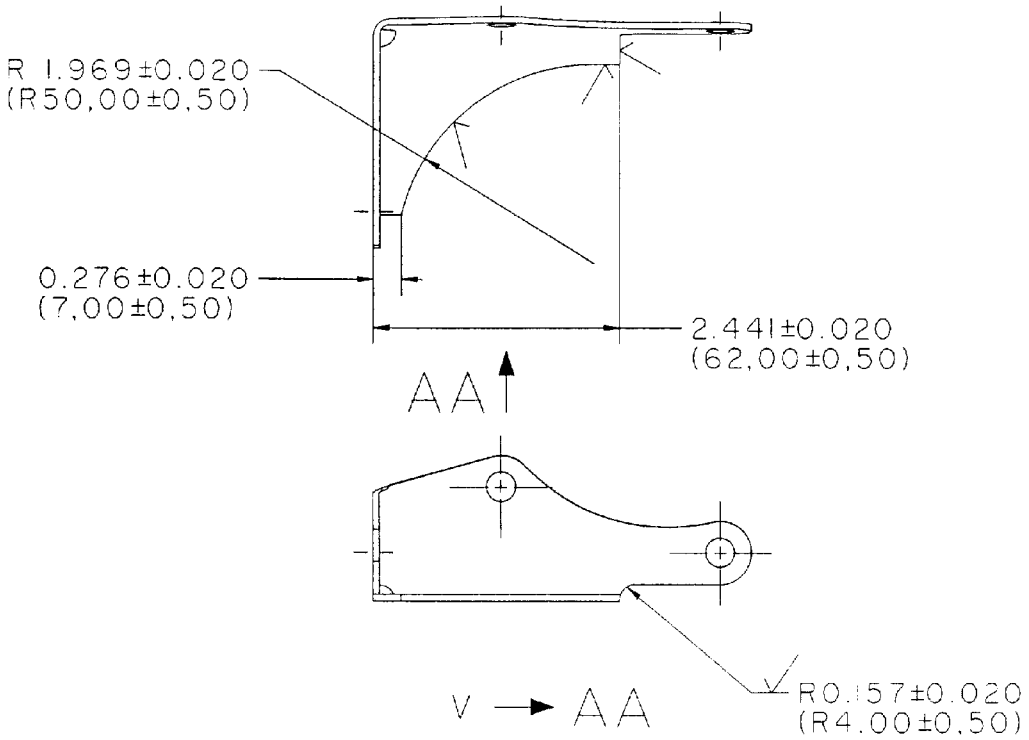
For the correct Removal/Installation procedure, refer to the A1/A5 Engine Manual (EM), Chapter/Section 72-40-00, Disassembly and Assembly.

C. Recording Instructions

A record of accomplishment is required.



VIEW OF BRACKET 6A6559 BEFORE REWORK



VIEW OF BRACKET AFTER REWORK

DIMENSIONS ARE IN INCHES (MILLIMETRES).
MACHINE WHERE MARKED ✓.
SURFACE FINISH TO BE 125 MICROINCHES (3.2 MICROMETRES) UOS.
BREAK SHARP EDGES 0.012±0.008 (0,30±0.20).

ded0002914

Bracket - Before and After Rework
Figure 1

ENGINE FUEL AND CONTROL - FUEL NOZZLE - INTRODUCTION OF REVISED SUPPORT BRACKETS FOR THE TURBINE COOLING AIR PIPE

SUPPLEMENT - PRICES AND AVAILABILITY

The prices if shown are for estimating purposes only and as such are given in good faith, without commercial liability for advanced planning purposes only. Refer to IAE Spares and/or current price catalogue for current prices.

1. Modification Kit

Not applicable. Parts supplied as single line items

2. New Production Parts

	Part No.	Desc.	Unit Price US Dollars
R	6A7452	Bracket TCA No.1	300.00
R	6A7453	Bracket TCA No.4	280.00