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

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DATE: Nov. 3/00

V2500-A1 PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits the Initial Issue of Service Bulletin EV2500-72-0372

Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 10 of the Service Bulletin	Initial issue

V2500-ENG-72-0372

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 are as follows:

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ENGINE - LP COMPRESSOR BLADES AND FILLERS - INTRODUCTION OF A REVISED WIDE CHORD FAN BLADE WITH DELETED ROOT STOP PIN AND REVISED FRONT AND REAR CHOCKING PADS

1. Planning Information

A. Effectivity

(1) Airbus A320

V2500-A1 Engines prior to Serial No. V0345

(2) ATA Locator 72-31-11

B. Concurrent Requirements

None

C. Reason

(1) Condition

The existing method of attaching the chocking pads to in-service LP compressor blades incorporating a root stop pin is involved and time consuming.

The current method of attaching chocking pads on V2500 new production standard LP compressor blades incorporates an improved process.

A design review has found that this process can also be applied to LP compressor blades incorporating a root stop pin and is considered logistically advantageous.

(2) Background

See (1).

(3) Substantiation

The changes introduced by this Service Bulletin have been the subject of satisfactory engineering analysis.

(4) Objective

Incorporation of the changes introduced by this Service Bulletin (Modification) is designed to improve maintainability.

(5) Effect on Bulletin:

(a) Operation

Not affected

(b) Maintenance

Affected

(c) Overhaul

Affected

(d) Repair Schemes

Affected

(e) Interchangeability

Not affected

(f) Fits and Clearances

Not affected

D. Description

(1) A revised Wide Chord Fan Blade is introduced similar to the existing item except for the following:

The changes introduced are:

(a) The root stop pin has been removed by machining away so it is underflush on the fan blade root to a depth of between 0,20mm and 0,70mm.

(b) Front and rear revised chocking pad assemblies similar to the existing items except for the following:

(i) An additional plate is bonded to the upper side of the elastomer block

(ii) The elastomer component thickness of the front and rear chocking pads is reduced to compensate for the additional bonded plate.

(c) The method of bonding the chocking pad assemblies to the blade root has been changed to double sided adhesive tape. The curing time is reduced from approximately 24 hours to 2 hours.

(2) Existing Fan Blades can be reworked See Figs 1 and 2.

E. Compliance

Category Code 8

Accomplish based upon experience with the prior configuration.

F. Approval

The part number changes and/or part modification described in Section 2 and 3 of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved for the engine models listed.

G. Manpower

(1) In service

Not affected

(2) At overhaul

Not affected

NOTE: The parts affected by this Service Bulletin are accessible at overhaul.

H. Material Price and Availability

Modification kit not required

For prices and availability of future spares refer to 2. Material Information

I. Tooling Price and Availability

No special tools required

J. Industry Support Information

None

K. Weight and Balance

(1) Weight Change

Minus 0.3lb (0,14kg)

(2) Moment Arm

31.5in (800mm) forwards

(3) Datum

Engine Front Mount Centreline (Power Plant Station PPS 100)

L. Electrical Load Data

This Service Bulletin does not affect the aircraft electrical load.

M. Software Accomplishment Summary

None

N. References

(1) Engine Manual, 72-31-00, Disassembly and Assembly

(2) Aircraft Maintenance Manual, 72-31-11, Removal/Installation Config-01

(3) Internal Reference 00VR001

(4) IAE V2500 Reference Service Bulletin

ENG-70-0025 Information - LP compressor - To announce a fan blade with improved bonding features

O. Other Publications Affected

(1) Illustrated Parts Catalogue 1IA, 72-31-11 will be revised.

(2) Engine Manual, 72-31-11:

(a) Cleaning-02, Config-01

(b) Inspection/Check-02, Config-01 and Config-03

(c) Repairs: VRS1002, VRS1003, VRS1021, VRS1022, VRS1023, VRS1025, VRS1028, VRS1064, VRS1723 and VRS1724

(3) Aircraft Maintenance Manual, 72-31-11:

(a) Inspection/Check, Config-01

(b) Approved Repairs

P. Interchangeability of Parts

Affected. See 2. Material Information for parts affected.

2. Material Information

A. The kit required consists of the parts that follow:

None

B. New production parts:

PART NO.	QTY	UNIT PRICE US $
6A7403	22	27750.00
6A5981	1	156.00
6A5980	1	156.00

NOTE: The unit prices, if shown, are an estimate and they are given for the purpose of planning only. For actual prices, refer to the IAE Price Catalogue or contact IAE's spare parts sales department.

C. Parts affected by this bulletin:

Foe engines not incorporating 70-0025

72-31-11

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01300	6A7656	22	Blade assy - rotor, LP compressor	-	6A3494	(C) (S1) (1D)

For engines incorporating 70-0025

72-31-11

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01300	6A7403	22	Blade assy - rotor, LP compressor	-	6A3971	(C) (S1) (1D)
01350	6A5981	1	Pad, rear - assy of	-	6A3495	(A) (B) (E)(S2)
01358	6A5980	1	Pad, front - assy of	-	6A2787	(A) (B) (E)(S2)

D. Instructions disposition codes:

(A) New part is currently available

(B) Old part will no longer be available

(C) New part will not be made available as a spare for replenishment purposes

(E) Part of assembly 6A7656 and 6A7403

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

(S2) Old and new parts are not interchangeable

(1D) Old part to be produced by rework only and re-indentified to the new part number

3. Accomplishment Instructions

A. Rework Instructions

Rework existing LP compressor fan blade assemblies, 6A3494, 6A3971 (72-31-11, Fig/Item 01300)

Tools

Tools will be required and are shown within the body of these instructions or in Engine Manual (EM), 72-31-11, Repair VRS1028.

Standard Equipment

Standard workshop equipment

Chemical cleaning equipment

Vibro-engraving equipment

CAUTION: TITANIUM COMPONENTS: ALL GRINDING WHEELS, STONES AND ABRASIVE PAPERS USED FOR CUTTING AND POLISHING MUST BE OF THE SILICONE CARBIDE TYPE. IF MECHANICAL CUTTERS ARE USED, ONLY LIGHT CUTS MUST BE MADE TO PREVENT OVERHEATING OF THE MATERIAL. IF THE MATERIAL IS DISCOLOURED BECAUSE OF HEATING, DARKER THAN A LIGHT STRAW COLOUR, THE COMPONENT IS TO BE REJECTED

	PROCEDURE	RELATED DATA
(1)	Remove front and rear chocking pads from blade	Refer to (EM), 72-31-11-300-013, (Repair VRS1028)
(2)	Remove pin from blade root	Refer to Fig 1. Use radial arm drill. Tooling 3R19555 Machining fixture 3R19556 Centralizing pin 3R19557 End mill 3R19558 Setting gauge Root pin to be removed underflush on the fan blade root to a depth of 0,20mm to 0,70mm. No existing material to be removed from the blade root. Remainder of pin to remain in blade root
(3)	Clean blade root	Refer to (EM) TASK 72-31-11-100-000. Use chemical cleaning equipment

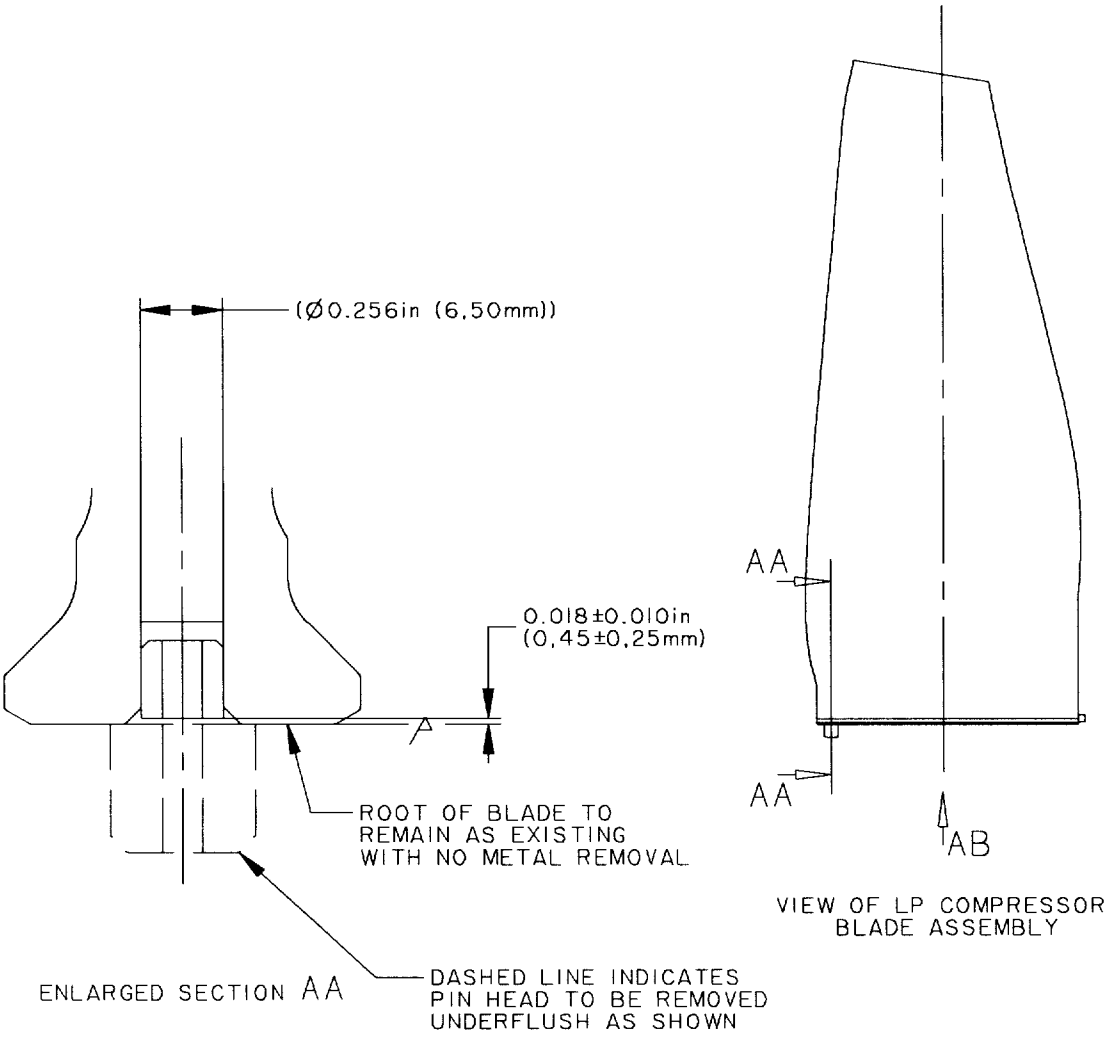
PROCEDURE	RELATED DATA
(4) Visually inspect blade root	Refer to Fig 1. Refer to Standard Practices Manual (SPM) TASK 70-21-01-220-501. Visually examine the blade root. Reject if blade root material has been removed or pin has been totally removed
(5) Re-identify by cancelling the existing blade assembly part number and adjacent to it, mark new assembly part number followed by the letters 'ASSY'	Refer to Fig 2. Refer to SPM TASK 70-09-00-400-501. Use vibro-peening equipment Existing 6A3494 Re-number 6A7656 Existing 6A3971 Re-number 6A7403

B. Assembly Instructions

The revised front and rear pads introduced by this Service Bulletin are not interchangeable. Remove existing and install new in accordance with current overhaul procedures and maintenance practices (Engine Manual, 72-31-11-00, Disassembly and Assembly and Aircraft Maintenance Manual, 72-31-11, Removal/Installation Config-01).

C. Recording Instructions

A record of accomplishment is required.



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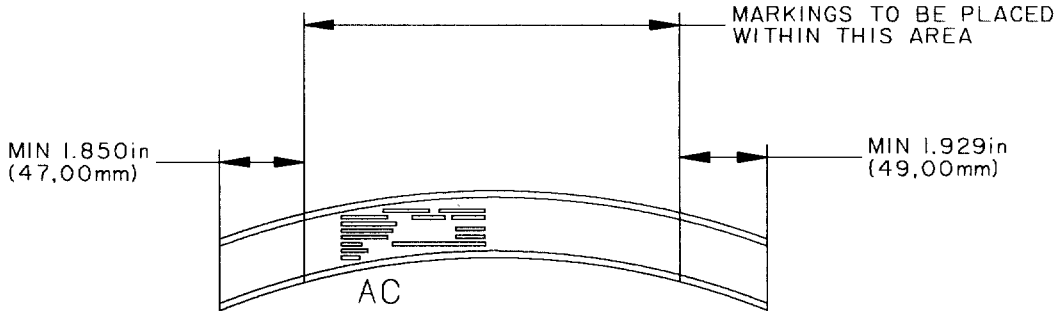
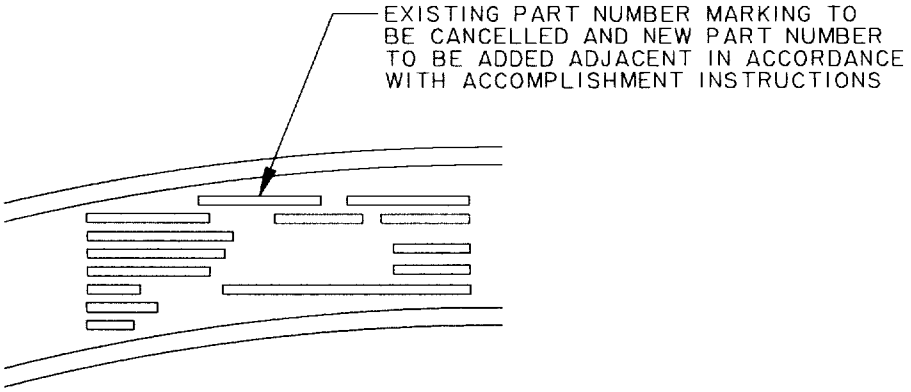
MACHINE WHERE MARKED ✓
MACHINE SURFACE FINISH TO BE 250 MICROINCHES (6,4 MICROMETRES)
REMOVE ALL BURRS

Detail of blade root rework
Fig 1



VIEW → AB



DETAIL AT AC

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Detail of blade root rework
Fig 2