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V2500-A1 SERIES PROPULSION SYSTEM SERVICE BULLETIN

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin NV2500-71-0292 and the Initial Issue of the Supplement

Bulletin Initial Issue

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Printed in Great Britain

NACELLE – POWERPLANT – COWL, AIR INTAKE – REPLACEMENT OF THE P2T2 MOUNTING BRACKET
ASSEMBLY AND SEALING BLOCK

SUMMARY

1. Planning

A. Effectivity

Nacelles

All Indian Airlines V2500-A1 Air Intake Cowls (part number 740-3000-605) prior to V365

B. Concurrent requirements

None.

C. Reason/Problem

Problem

Several 'hybrid' Air Intake Cowls, used by Indian Airlines, have shown signs of wear and cracking of the P2T2 Mounting Bracket Assemblies.

Evidence

Several Indian Airlines Air Intake Cowls, which were returned to Bombardier Shorts for modifications, have shown signs of wear and cracking of the P2T2 Mounting Bracket Assemblies.

Substantiation

All Hardware changes, either material change or increase in gauge, has been substantiated by satisfactory engineering analysis. Additionally, the new P2T2 Mounting Bracket has been introduced into the V2500-A5 configuration successfully.

Objectives

To Introduce a new, more durable P2T2 Mounting Bracket Assembly and a better fitting Sealing Block to reduce the risk of significant wear and cracking.

Description

This Service Bulletin instructs the replacement of the P2T2 Mounting Bracket Assembly.

Compliance

Category Code 6

Accomplish when the Nacelle sub-assembly (i.e. accessories, components) are disassembled sufficiently to afford access to the affected part and to all affect spare parts.

F. Manpower

In service – Not applicable.

At overhaul – 1.0 M/Hr.

G. Interchangeability of Parts

The parts introduced by this Service Bulletin must be fitted as a set.

2. MATERIAL INFORMATION

A. Parts Prices

None.

NACELLE – POWERPLANT – COWL, AIR INTAKE – REPLACEMENT OF THE P2T2 MOUNTING BRACKET
ASSEMBLY AND SEALING BLOCK

1. Planning Information

A. Effectivity

(1) Airbus A320

(a) All Indian Airlines V2500-A1 Air Intake Cowls (part number 740-3000-605) prior to V365.

B. Concurrent Requirements

None.

C. Reason

(1) Problem

Several 'hybrid' Air Intake Cowls, used by Indian Airlines, have shown signs of wear and cracking of the P2T2 Mounting Bracket Assemblies.

(2) Evidence

Several Indian Airlines Air Intake Cowls, which were returned to Bombardier Shorts for modifications, have shown signs of wear and cracking of the P2T2 Mounting Bracket Assemblies.

(3) Substantiation

All hardware changes, either material change or increase in gauge, has been substantiated by satisfactory engineering analysis. Additionally, the new P2T2 Mounting Bracket has been introduced into the V2500-A5 configuration successfully.

(4) Objectives

To introduce a new, more durable P2T2 Mounting Bracket Assembly and a better fitting Sealing Block to reduce the risk of significant wear and cracking.

(5) Effect of Bulletin on:

(a) Operation

Not Affected

(b) Maintenance

Not Affected

(c) Overhaul

Not Affected

(d) Repair Scheme

Not affected

(e) Interchangeability

Not Affected

(f) Fits and Clearances

Not Affected

D. Description

(1) The changes introduced by this Service Bulletin are as follows:

(a) The P2T2 Probe is removed.

(b) The old P2T2 Mounting Bracket Assembly, with Nutplate, and the Sealing Block are removed.

(c) The new P2T2 Mounting Bracket Assembly and the new Sealing Block are installed.

(d) The P2T2 Probe is installed.

NOTE: There is no requirement for the Nutplate to be installed as part of the new P2T2 Mounting Bracket configuration. Consequently, to allow for usage of the existing bolts, new, thicker washers have been introduced as part of the P2T2 Probe installation.

E. 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.

F. Approval

The technical content of this Service Bulletin has been approved under the authority of the EASA Design Organisation Approval No EASA.21J.031. The authorising IAE documents are EC 01VN780A and EC 01VN780B.

G. Manpower

Estimated man-hours to incorporate the intent of this Service Bulletin on each engine:

(1) In Service

Not Applicable

(2) At overhaul

1.0 M/Hr

NOTE: Manpower estimate is provided for planning purposes only. No labor allowance is provided under the terms of this service bulletin offering.

H. Material Cost and Availability

The parts to accomplish this Service Bulletin are available from IAE as Kit No. V2571292-551.

Operators with units listed in Paragraph 1.A should submit a Charge purchase order for the applicable quantity of kits. The Charge purchase order must specify this Service Bulletin number and the parts listed herein.

Direct request to:

IAE Spares Division

400 Main Street

M/S 121-10

East Hartford CT06108

USA

Fax Number 860-565-4121

(Service Bulletin No. V2500-NAC-71-0292)

I. Tooling – Cost and Availability

None.

J. Industry Support Information

Not Applicable.

K. Weight and Balance

(1) Weight change

+0.4 lb (0,18 Kg)

(2) Moment arm

58.4 in (1483,36 mm) forward of Datum

(3) Datum

Nacelle Forward Mount Centreline (Powerplant Station PPS 100.00)

L. Electrical Load Data

Not Affected.

M. Software Accomplishment Summary

Not applicable.

N. References

(1) Standard Practices/Processes Manual (SPP-V2500-1IA), Chapter/Sections 70-11-26 and 70-36-02.

(2) A320/V2500-A1 A319/A320/A321/V2500-A5 Aircraft Maintenance Manual (M-V2500-1IA) Chapter/Sections 73-22-11.

(3) Overhaul Processes And Consumable Index (IAE PCI-V2500-1IA) Section II.

(4) IAE engineering changes EC 01VN780A and EC 01VN780B.

(5) Aircraft Modification No. 33902

(6) ATA Locator 73-22-11

O. Other Publications Affected

(1) A320/V2500-A1/A5 Engine Illustrated Parts Catalog, Chapter/Section 73-22-11 will be revised.

- (2) Component Maintenance Manual (CMM-FC-V2500-1IA), Chapter/Section 71-11-00 will be revised.

P. Interchangeability of Parts

- (1) The parts introduced by this Service Bulletin must be fitted as a set.

2. Material information

A. Kits required consist of the following parts:

Applicability: For each Indian Airlines V2500-A1 Nacelle to incorporate this Bulletin.

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
	V2571292- 551	1	Kit, P2T2 Mounting Bracket Assembly Replacement			(A)
	Consisting of:					
	MBF2110-6- 200	18	Composi-loc Fasteners			
	NAS1149 C0463R	4	Washers			
	740-3336- 503U*	1	P2T2 Mounting Bracket Assembly			
	740-3093- 503	1	Sealing Block			

* 'U' indicates part will be supplied undrilled for ease of installation.

B. Parts to be reworked:

None.

C. New production parts:

Applicability: Indian Airlines V2500-A1 Air Intake Cowls (part number 740-3000-605).

73-22-11

FIG ITEM NO.	NEW PART NO.	QTY	PART TITLE	MAT	OLD PART NO.	INSTR DISP
01030	NAS1149 C0463R	4	Washer		AN960C 416L	(B)(S1)

D. Redundant Parts:

None.

E. Instructions/Dispositions Code Statements:

(A) Kit is currently available.

(B) Parts are currently available.

(S1) Old and new parts are not interchangeable physically or functionally.

F. Materials required to incorporate this Bulletin

CoMat 01-076 Methyl ethyl ketone (MEK)

CoMat 01-124 Isopropyl Alcohol

CoMat 02-099 Lint free cloth

CoMat 02-162 Syringe

CoMat 08-021 EA934NA Adhesive, Parts A and B

CoMat 08-104 EA9394 Adhesive, (2 Part)

CoMat 04-005 PL32M Jointing Compound Vendor Code-K6835

NOTE: To identify the consumable materials, refer to the Overhaul Processes and Consumable Index PCI-V2500-1IA.

3. Accomplishment Instructions

A. Pre-requisite Instructions

None.

B. Rework Instructions

WARNING: DO NOT TOUCH THE ENGINE COMPONENTS FOR A SHORT TIME AFTER THE ENGINE IS SHUT DOWN. THE COMPONENTS STAY HOT AND CAN CAUSE INJURY.

- (1) Remove the P2T2 Probe as instructed in the A320/V2500-A1 A319/A320/A321/V2500-A5 Aircraft Maintenance Manual, Task 73-22-11-000-010.

WARNING: EA934NA ADHESIVE (COMAT 08-121) OR EA9394 ADHESIVE (COMAT 08-104) IS CLASSIFIED AS A HAZARDOUS MATERIAL THAT MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURERS SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE 'MATERIAL SAFETY DATA SHEET' AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

WARNING: COMAT 01-076 OR COMAT 01-124 SOLVENT IS FLAMMABLE AND THE VAPOUR IS HARMFUL. USE IN A WELL VENTILATED AREA. AVOID PROLONGED BREATHING OF VAPOURS OR PROLONGED OR REPEATED CONTACT WITH SKIN. HIGH CONCENTRATIONS MAY CAUSE IMPAIRED JUDGEMENT. PROTECTIVE GLOVES SHOULD BE WORN DURING USE. MAY CAUSE DERMATITIS BY REMOVING SKIN OILS. PRIOR TO USE OF THIS PRODUCT, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

WARNING: COMAT 04-005 JOINTING COMPOUND IS CLASSIFIED AS A HAZARDOUS MATERIAL WHICH MAY CAUSE INJURY OR ILLNESS IF NOT PROPERLY USED. THIS PRODUCT SHOULD BE USED ONLY IN ACCORDANCE WITH THE MANUFACTURERS SPECIFIC SAFETY AND HEALTH RECOMMENDATIONS. PRIOR TO USE OF THIS PRODUCT, CAREFULLY READ THE APPLICABLE 'MATERIAL SAFETY DATA SHEET' AND FOLLOW ALL LISTED SAFETY AND HEALTH PRECAUTIONS.

- (2) Replace the P2T2 Mounting Bracket Assembly and the Sealing Block as follows:

NOTE: When you remove the Composi-loc fasteners, use a drill stop to prevent damage.

NOTE: When you remove the Composi-loc fasteners make sure that you do not increase the size of the fastener holes.

- (a) Carefully remove the 18 MBF2110-6-200 Composi-loc fasteners to release the 740-3336-501 P2T2 Mounting Bracket Assembly and the 740-3093-501 Sealing Block from the Air Intake Cowl. Refer to Figure 1.
- (b) Remove the 740-3336-501 P2T2 Mounting Bracket Assembly and the 740-3093-501 Sealing Block from the Air Intake Cowl.

NOTE: The old flanges will be used as fastener hole templates.

- (c) Remove the inboard flange from the old 740-3336-501 P2T2 Mounting Bracket Assembly and firmly secure to the inboard flange of the new 740-3336-503 P2T2 Mounting Bracket Assembly. Make sure that the flange edges are flush.
- (d) Remove the outboard flange from the old 740-3336-501 P2T2 Mounting Bracket Assembly and firmly secure to the outboard flange of the new 740-3336-503 P2T2 Mounting Bracket Assembly. Make sure that the flange edges are flush.
- (e) Drill 18 3/32 in. (2,40 mm) pilot sized holes from the old flanges into the 740-3336-503 P2T2 Mounting Bracket Assembly.
- (f) Progressively increase the size of the 18 holes to 0.193 0.197 in. (4,90 5,00 mm).
- (g) Remove the old flanges.
- (h) Debur the 18 fastener holes in the 740-3336-503 P2T2 Mounting Bracket Assembly.
- (i) Mix a quantity of CoMat 08-021 or CoMat 08-104 adhesive in accordance with the manufacturers instructions.
- (j) Fill a Syringe (CoMat 02-162) with the mixed CoMat 08-021 or CoMat 08-104 adhesive and put a small quantity of the adhesive into the 18 fastener holes to prevent movement of the fastener stems in the honeycomb.

NOTE: Make Sure that no excess solvent leaks into the vacant holes.

- (k) Use a clean, lint free cloth dampened with CoMat 01-076 or CoMat 01-124 Solvent to remove all oil, grease, dirt or other contaminants from the mating surface of the Air Intake Cowl. Wipe the area dry with a clean, lint free cloth before the solvent evaporates. Refer to the IAE/V2500 Standard Practices/Processes Manual, Task 70-11-26-300-503.

NOTE: Wet install the MBF2110-6-200 Composi-loc fasteners with CoMat 04-005 Jointing Compound.

- (l) Use CoMat 04-005 Jointing Compound as a faying surface between the Mounting Bracket Assembly, the Sealing Block and the Air Intake Cowl and install the 740-3093-503 Sealing Block and the 740-3336-503 P2T2 Mounting Bracket Assembly to the Air Intake Cowl with the 18 MBF2110-6-200 Composi-loc fasteners. Refer to IAE/V2500 Standard Practices/Processes Manual, Chapter 70-36-02.

- (m) Remove any excess Jointing Compound.

NOTE: There is no requirement for the Nutplate to be installed as part of the new P2T2 Mounting Bracket configuration. Consequently, to allow for usage of the existing bolts, new, thicker washers have been introduced as part of the P2T2 Probe installation. Refer to Figure 2.

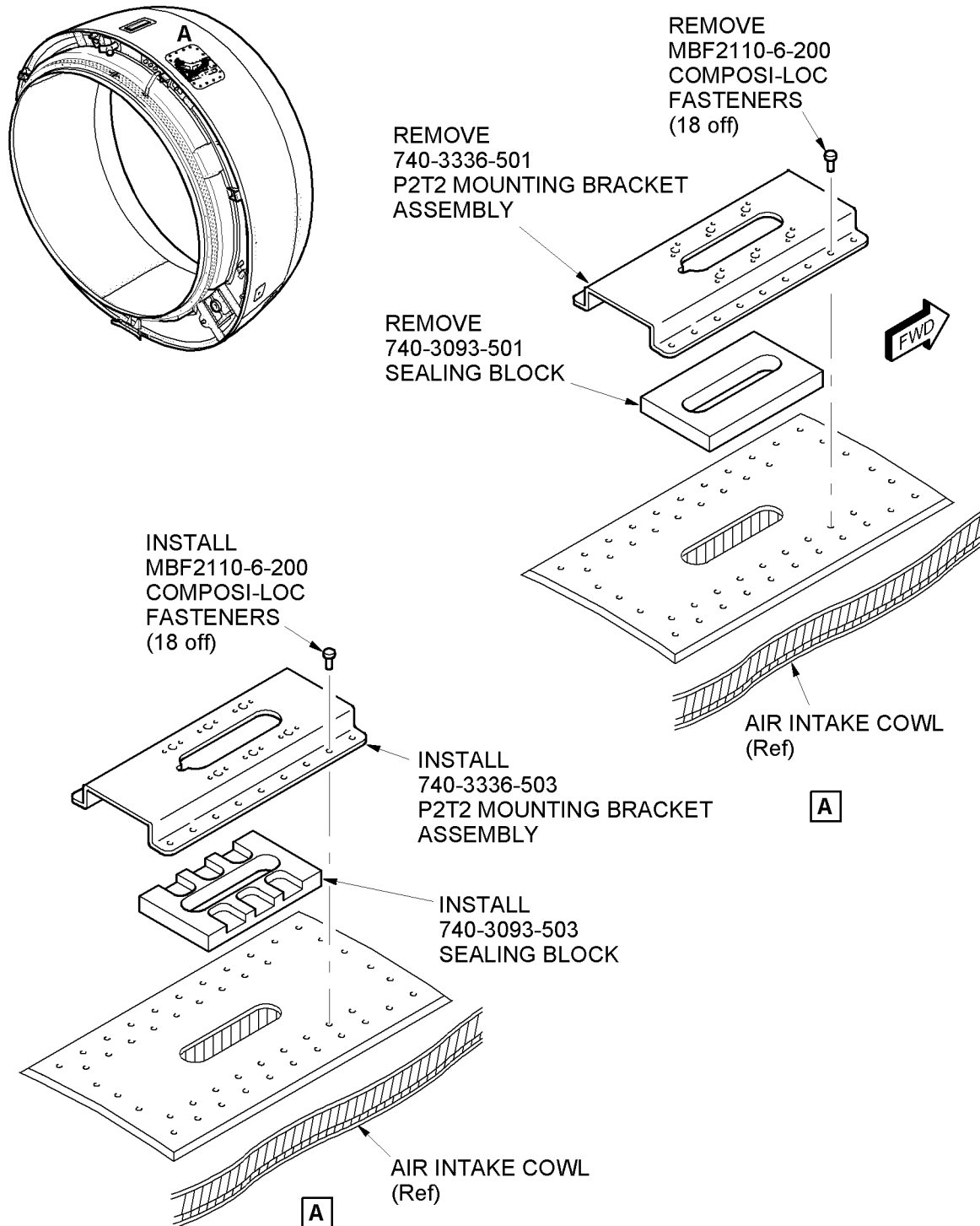
- (3) Install the P2T2 Probe as instructed in the A320/V2500-A1 A319/A320/A321/V2500-A5 Aircraft Maintenance Manual, Task 73-22-11-400-010. Use the four NAS1149C0463R in lieu of the four AN960C10L Washers.

C. Post-requisite Instructions

None.

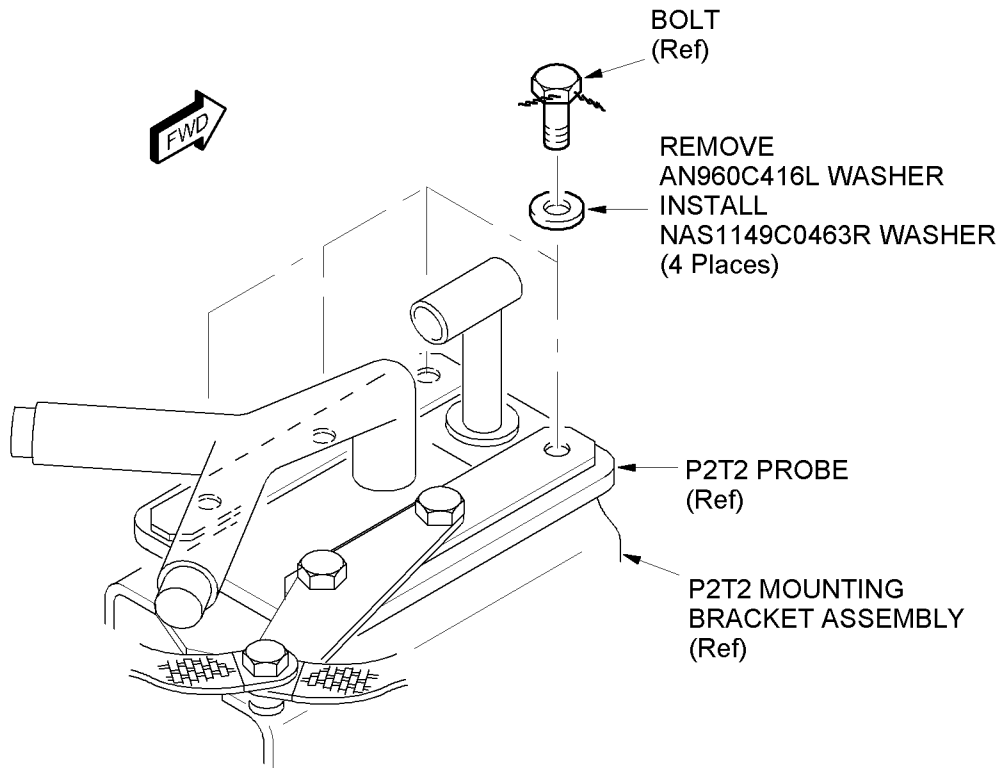
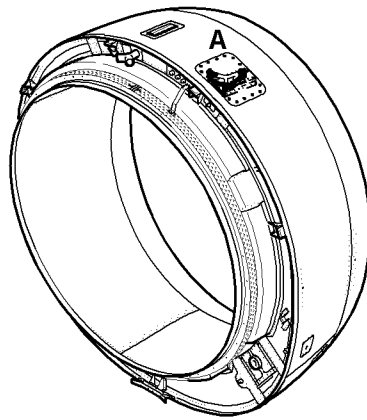
D. Recording Instructions

- (1) A record of accomplishment is necessary. Write in the Aircraft Log Book that Service Bulletin V2500-NAC-71-0292 has been done.



sh000b4796

Replacement of the P2T2 Mounting Bracket Assembly and Sealing Block
Figure 1



A

sh000b4797

New configuration of P2T2 Probe installation – For the complete removal/installation of the P2T2 Probe refer to the AMM
Figure 2

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

NACELLE – POWERPLANT – COWL, AIR INTAKE – REPLACEMENT OF THE P2T2 MOUNTING BRACKET
ASSEMBLY AND SEALING BLOCKSUPPLEMENT – 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:

Kit No.	Description	Unit Price US Dollars
V2571292-551	Kit, P2T2 Mounting Bracket Assembly Replacement	629.20

2. Parts required:

Part No.	Description	Unit Price US Dollars
MBF2110-6-200	Composi-Loc Fastener	22.00
NAS1149C0463R	Washer	0.05
740-3336-503	P2T2 Mounting Bracket Assembly	148.00
740-3093-503	Sealing Block	85.00