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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V2500-A1 SERIES PROPULSION SYSTEMS SERVICE BULLETIN

This document transmits Revision 3 to Service Bulletin V2500-ENG-72-0150

Document History

Service Bulletin Revision Status		Supplement Revision Status
Initial Issue	Feb.7/94	
Revision 1	Jul.15/95	
Revision 2	Jun.23/00	

Bulletin Revision 3

Remove	Incorporate	Reason for change
Pages 1 to 17 of the Service Bulletin	Page 1 to 16 of the Service Bulletin	To correct date of Effective Date in Transmittal Letter All pages re-issued and changed to New Style Format

LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 3 are as follows:

Page		Revision Number	Revision Date
	Bulletin		
R	1	3	Oct.24/00
R	2	3	Oct.24/00
R	3	3	Oct.24/00
R	4	3	Oct.24/00
R	5	3	Oct.24/00
R	6	3	Oct.24/00
R	7	3	Oct.24/00
R	8	3	Oct.24/00
R	9	3	Oct.24/00
R	10	3	Oct.24/00
R	11	3	Oct.24/00
R	12	3	Oct.24/00
R	13	3	Oct.24/00
R	14	3	Oct.24/00
R	15	3	Oct.24/00
R	16	3	Oct.24/00

ENGINE - LP COMPRESSOR - PROVIDE A NEW WEIGHT REDUCED FAN FRAME ASSEMBLY AND ASSOCIATED DETAILS

1. Planning Information

A. Effectivity

(1) Aircraft

Airbus A320

(2) Engine

V2500-A1 Engines prior to Serial Number V0305

(3) ATA Locator

71-00-00 and 72-32-00

B. Concurrent Requirements

None.

C. Reason

(1) Condition

It was determined to reduce the weight of the fan frame assembly as a part of engine weight reduction program.

(2) Background

A design review for the existing fan frame assembly has shown that the significant weight saving can be achieved by reducing the wall thickness of the frame.

(3) Objective

The incorporation of this Service Bulletin is designed to reduce the engine weight.

(4) Substantiation

The change introduced by this Service Bulletin have been subjected to an endurance testing on the development engine and an evaluation of structural similarity by analysis. The results obtained were satisfactory.

(5) Effects of Bulletin on Workshop Procedures:

Removal/Installation	Affected (See Supplemental Information)
Disassembly/Assembly	Affected (See Supplemental Information)
Cleaning	Affected (See Supplemental Information)
Inspection/Check	Affected (See Supplemental Information)
Repair	Affected (See Supplemental Information)
Testing	Not affected

(6) Supplemental Information

(a) The Removal/Installation and Disassembly/Assembly will be revised due to new configuration of the fan frame assembly, the rear drain tube and the thrust mount brackets.

(b) Cleaning, Inspection/Check and Repair will be revised due to new configuration of the fan frame assembly.

D. Description

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

(a) A new fan frame assembly which has the reduced wall thickness and optimized frame shape has been introduced.

(b) A design features of anti-rotation for mount tube stopper has been changed to improve the durability of rubber securing features.

(c) The new seal drain tube which has the revised attaching feature and re-routed tube has been introduced.

(d) The new thrust mount brackets which have the thicker platform and larger size of attaching bolts has been introduced.

(e) The new assembly module part number, 5W0153 of LP Compressor/Intermediate Case Module have been introduced.

E. Approval

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

F. Compliance

Category Code 7

Accomplish when supply of superseded parts has been depleted.

G. Manpower

Not Applicable

H. Material - Price and Availability

(1) Modification kit not required. Parts are supplied as single line items.

(2) Material Information" section for prices and availability of future spares.

I. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

J. Weight and Balance

(1) Weight change	.. ..	Minus 3.0 lb. (1,4 kg)
(2) Moment arm	.. ..	Not effect
(3) Datum	.. ..	Engine front mount centerline (Power Plant Station (PPS) 100)

K. Electrical Load Data

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

L. References

(1) Internal Reference No.

EC91VJ005, EC91VJ005A, EC93VJ021A, ECM86VJ048-04 and ECM87VJ149-06

(2) V2500 Engine Illustrated Parts Catalog

(3) V2500 Engine Manual

(4) V2500 Standard Practices/Processes Manual

M. Other Publications Affected

(1) V2500 Engine Illustrated Parts Catalog, Chapter/Section 71-21-11, 72-32-03 and 72-32-38.

(2) V2500 Engine Manual, 71-21-11, Installation, Cleaning, Inspection/Check and Repair, 72-32-00, Disassembly -02 and -12, Assembly -04 and -14, 72-32-03, Cleaning, Inspection/Check and Repair.

(3) V2500 Component Maintenance Manual, 72-32-38, Cleaning, Inspection/Check, Repair and Testing.

2. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None.

B. Parts affected by this Bulletin:

New Part No. (ATA No.)	Qty	Est'd Unit Price($)	Keyword	Old Part No. (IPC No.)	Instruction/ Disposition
5A1422 (71-21-11)	1	2310.00	.Bracket, A/O T/Mount No. 2	5A0390 (01-500)	(A)(B)(S1) (S2)
5A1423 (71-21-11)	1	2310.00	.Bracket, A/O T/Mount No. 10	5A0391 (01-700)	(A)(B)(S1) (S2)
4W0005 (71-21-11)	6	11..30	.Nut	4W0004 (01-510)	(A)(B)(S1) (S2)
AS31430 (71-21-11)	6	6.46	.Bolt	AS21226 (01-520)	(A)(B)(S1) (S2)
4W0005 (71-21-11)	6	11..30	.Nut	4W0004 (01-710)	(A)(B)(S1) (S2)
AS31430 (71-21-11)	6	6.46	.Bolt	AS21226 (01-720)	(A)(B)(S1) (S2)
5W0153 (72-32-00)	1	----	LPC/Intermediate case module	5W0142 (01-001)	(S1)(S2)
5A0426 (72-32-03)	1	183.00	.Stopper, A/O Mount Tube	- (02-450)	(A)(1D)(S1) (S3)
4W0001 (72-32-03)	2	2.28	.Nut	- (02-451)	(A)(1D)(S1) (S3)
4W2326 (72-32-03)	2	6.17	.Screw	- (02-454)	(A)(1D)(S1) (S3)
5A1087 (72-32-03)	1	----	.Frame, A/O Fan	5A1047 (03-100)	(C)(S1)(S3)

New Part No. (ATA No.)	Qty	Est'd Unit Price($)	Keyword	Old Part No. (IPC No.)	Instruction/ Disposition
AGS3731 (72-32-03)	1	0.90	...Insert, Screw Thread	AGS3732 (03-141)	(E)
CR2562M4-5 (72-32-03)	36	4.64	...Rivet, Flush Head	CR2662-4-5 (03-148)	(E)
MS51992D 505D17 (72-32-03)	4	17.50	...Stud, ring	MS51992A 645-14 (03-169)	(E)
- (72-32-03)	1		...Stopper, Rubber Mount	5A1300 (03-175)	(E)(F)
- (72-32-03)	4		...Rivet, Solid CSK	AS16447 (03-179)	(E)
5A1456 (72-32-03)	1	----	...Pin	AS44814 (03-200)	(E)
5A1456 (72-32-03)	1	----	...Pin	AS44814 (03-376)	(E)
MS51992D 505D17 (72-32-03)	4	17.50	...Stud, ring	MS51992A 645-14 (03-400)	(E)
5A0805 (72-32-38)	1	1315.00	.Tube, A/O Seal Drain	5A1351 (01-200)	(A)(B)(S1) (S3)
4W0110 (72-32-00)	1	4.11	.Bolt	- (02-215)	(A)(1D)(S1) (S3)
- (72-32-00)	2		.Bolt	4W0163 (02-210)	(B)(S1)(S3)
5A2189 (72-32-85)	1		.Plate, LPC Module	5A2189 (03-100)	(A)

NOTE: The unit prices, if shown, are an estimate and they are given for the purposes of planning only. For information about actual prices, refer to the IAE Price Catalog or contact IAE's Spare arts Sales Department.

Printed in Great Britain

C. Instruction/Disposition Code:

(A) New parts are currently available for sale.
(B) Old parts will continue to be available for sale.
(C) Old and new parts are non-provisioning items.
(E) Repair parts for frame, A/O fan (72-32-03,03-100)
(F) Old part will no longer be available.
(S1) Old and new parts are not freely and fully interchangeable, either physically or functionally.
(S2) New parts coded (S2) must replace old parts coded (S2) as a COMPLETE SET per engine.
(S3) New parts coded (S3) must replace old parts coded (S3) as a COMPLETE SET per engine.
(1D) Additional part.

3. Accomplishment Instructions

A. Rework Instruction

There are no rework instructions necessary to accomplish this Service Bulletin.

B. Assembly Instruction

(1) Install the 5A1087, fan frame assembly to the LP compressor/intermediate case module by the approved procedures in the Engine Manual, 72-32-00, Assembly-01 (Refer to 1.K.(2).).

(2) Install the 5A0426, mount tube stopper to the 5A1087, fan frame assembly as follows (Refer to Figure 2, Sheet 2 of 3.):

(a) Attach the mount tube stopper to the inner surface of the fan frame rear flange at 12 o'clock position.

(b) Install the two 4W2326, screws and the two 4W0001, nuts. Torque the nuts to 36 to 45 lbfin (4,00 to 5,00 Nm).

(3) Install the 5A0805, seal drain tube to the 5A1087, fan frame assembly as follows (Refer to Figure 2, Sheet 1 of 3.):

(a) Lubricate a new sealing ring with CoMat 10-077, approved engine oils. Install the sealing ring in to the groove on the Seal drain tube.

(b) Install the seal drain tube in to the connection of the fan frame assembly. Safety with the 4W0110, bolt and torque it to 36 to 45 lbfin (4,00 to 5,00 Nm).

(4) Install the 5A1422, thrust mount No. 2 bracket and the 5A1423, thrust mount No. 10 bracket to the 5A1087, fan frame assembly as follows (Refer to Figure 2, Sheet 3 of 3.):

(a) Engage the aligning pin holes in each mount bracket with the aligning pins on each mounting pad of the fan frame.

(b) Attach the mount brackets on to each strut of the fan frame.

(c) Install six AS31430, bolts through the bolt holes in each mount bracket and the bolt holes in each mounting pad. Safety the mount brackets with each six 4W0005, nuts.

(d) Torque the bolts to 450 to 525 lbfin (51,0 to 59,0 Nm).

(5) Install the new 5A2189, Module Identification Plate as follows (Refer to Figure 3):

(a) Find the existing 5A2189, Module Identification Plate on the LP Compressor/Intermediate Module and make sure that the module part number is 5W0142.

(b) Replace the existing module part number 5W0142 with the new number 5W0153 as follows;

1. Remove the existing two 4W0102, Bolts from the existing 5A2189 Module Identification Plate on the Fan Case.

2. Remove and discard the existing Module Identification Plate.

   NOTE: Make sure the existing Serial Number on the Module Identification Plate before you discard.

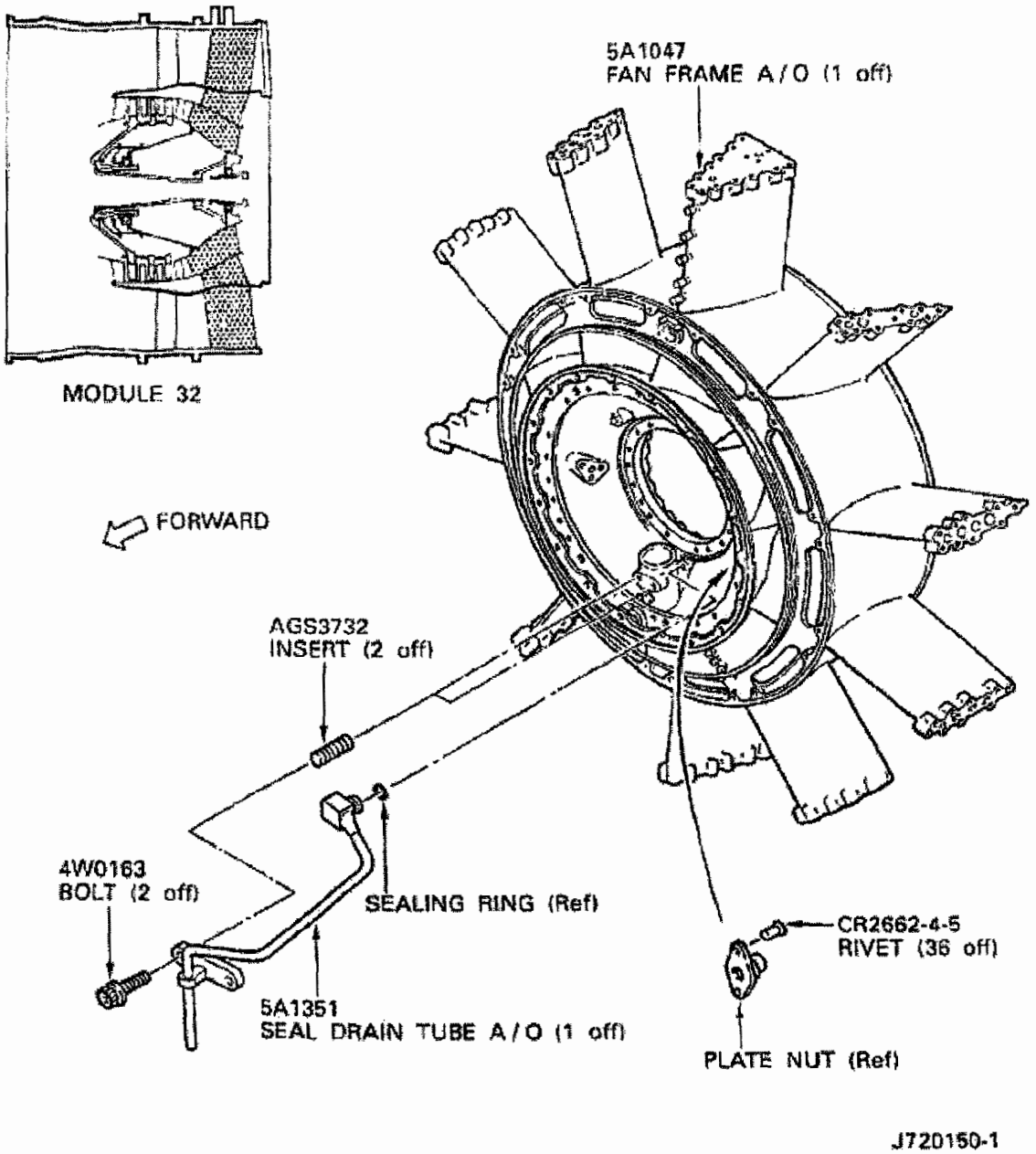
3. Make a mark of the module part number 5W0153 and existing serial number on the new 5A2189, Module Identification Plate by the approved procedures in Reference (3), Chapter/Section 70-09-00, Marking of Parts.

4. Install the newly marked 5A2189, Module Identification Plate with the two 4W0102, Bolts at the sufficient position.

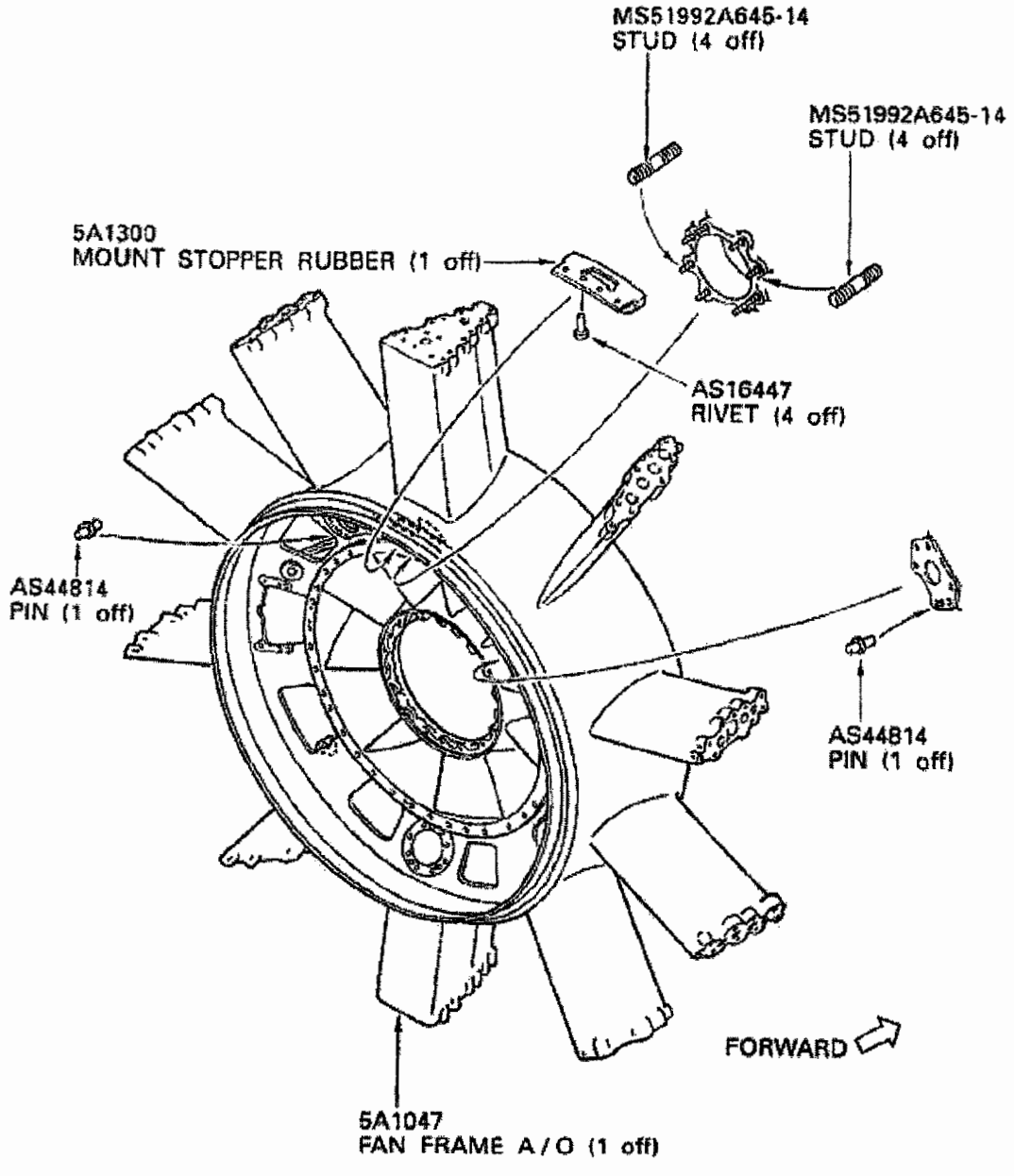
5. Torque the bolts to 36 to 45 lbin (4,00 to 5,00 Nm).

C. Recording Instructions

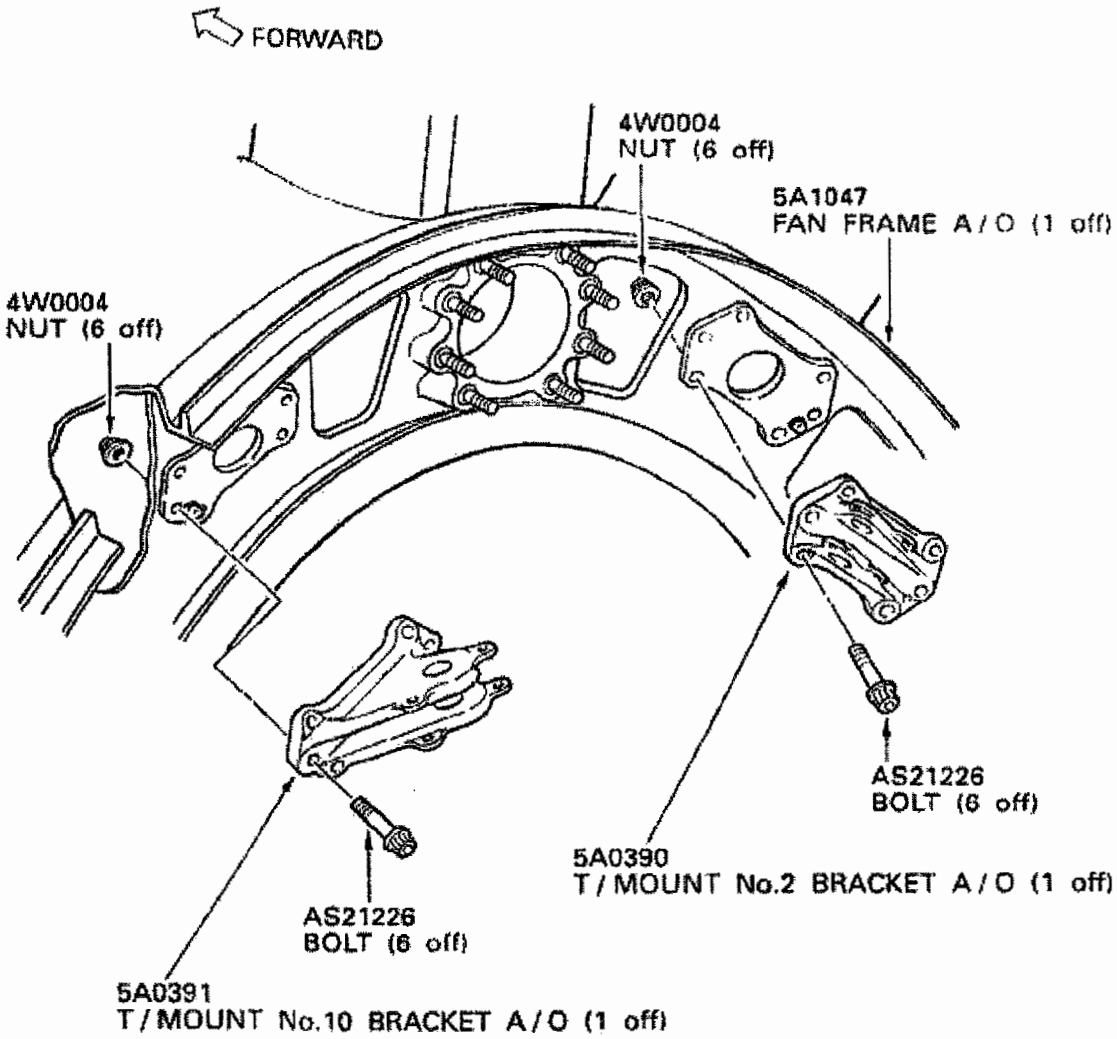
A record of accomplishment is necessary.



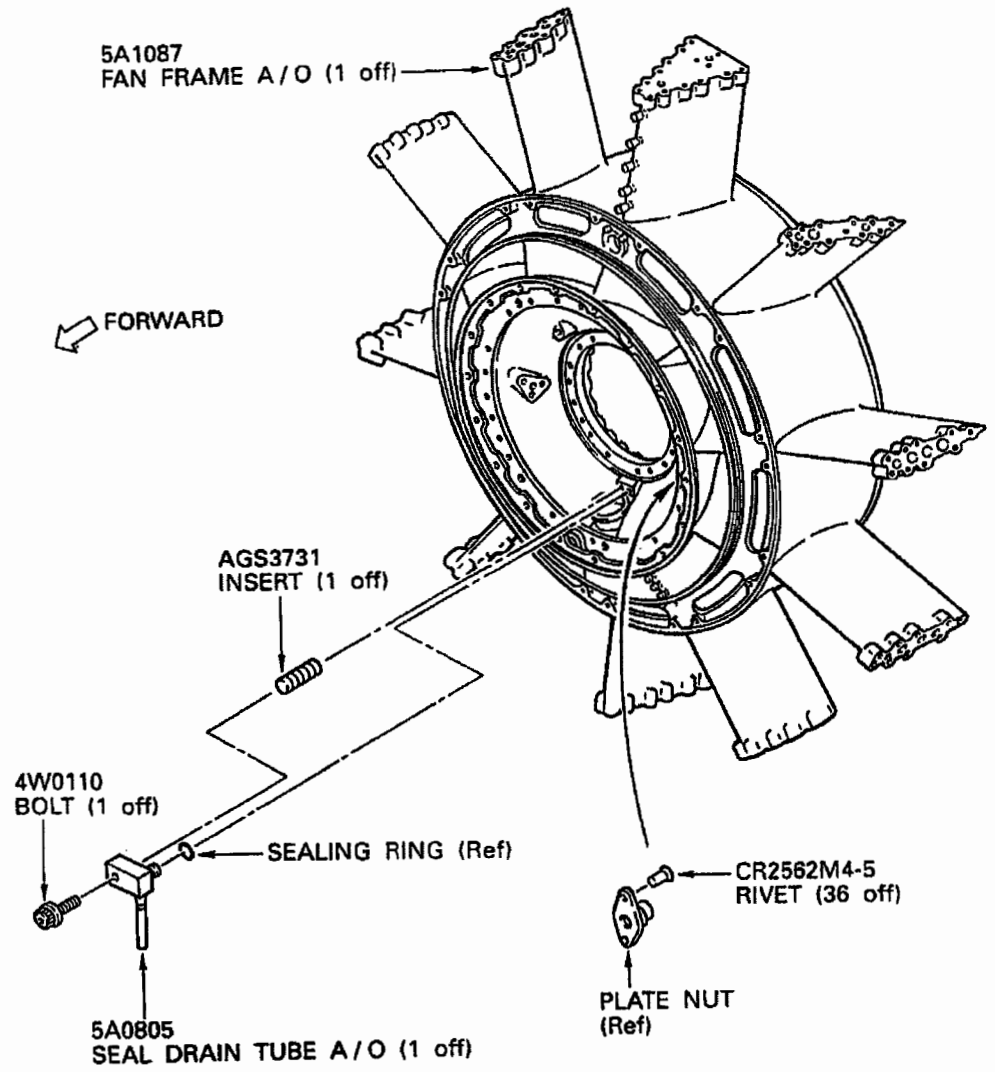
Fan Frame Assembly and Associated Details - Before Alteration
Figure 1 (Sheet 1 of 3)



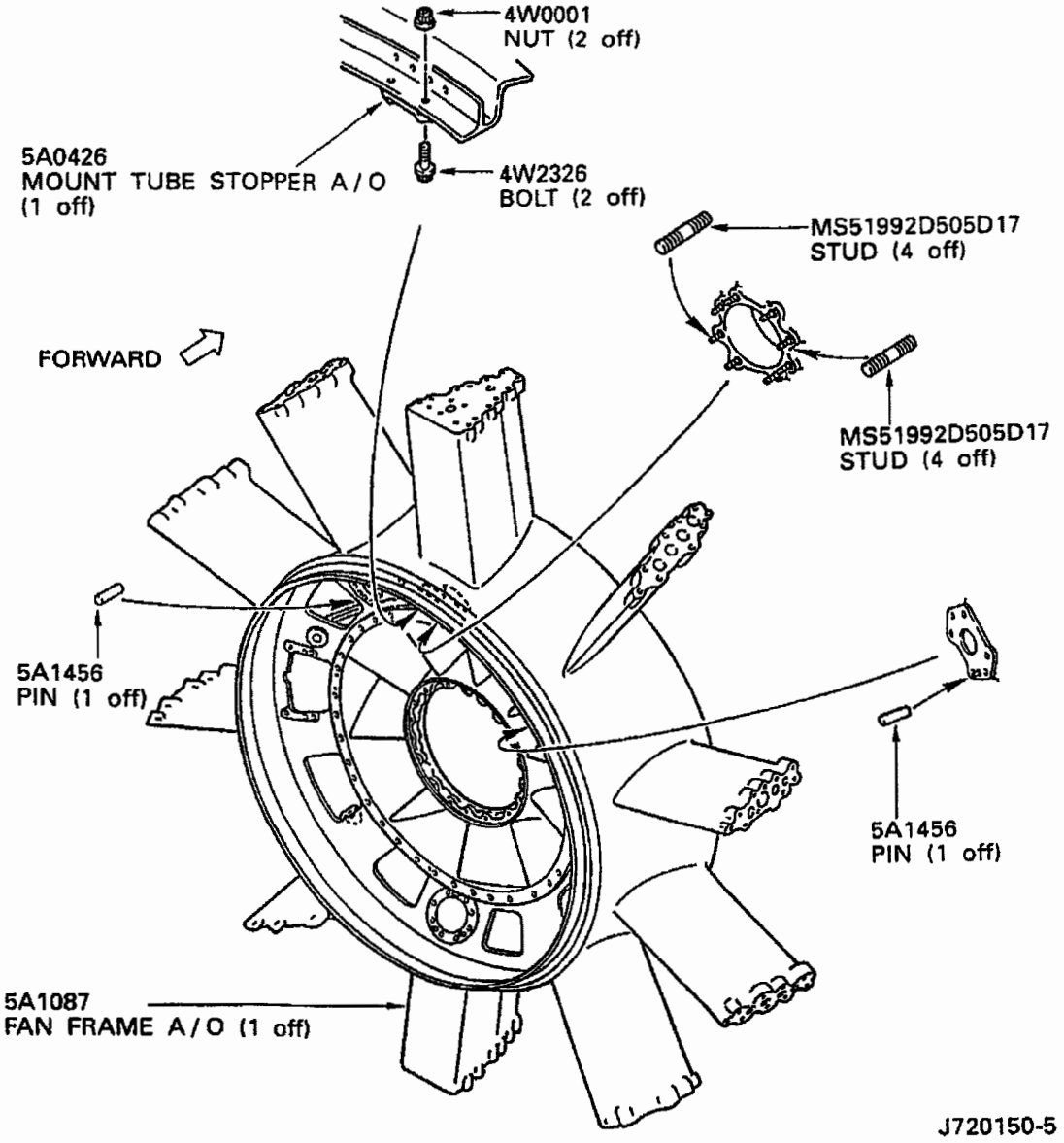
Fan Frame Assembly and Associated Details - Before Alteration
Figure 1 (Sheet 2 of 3)



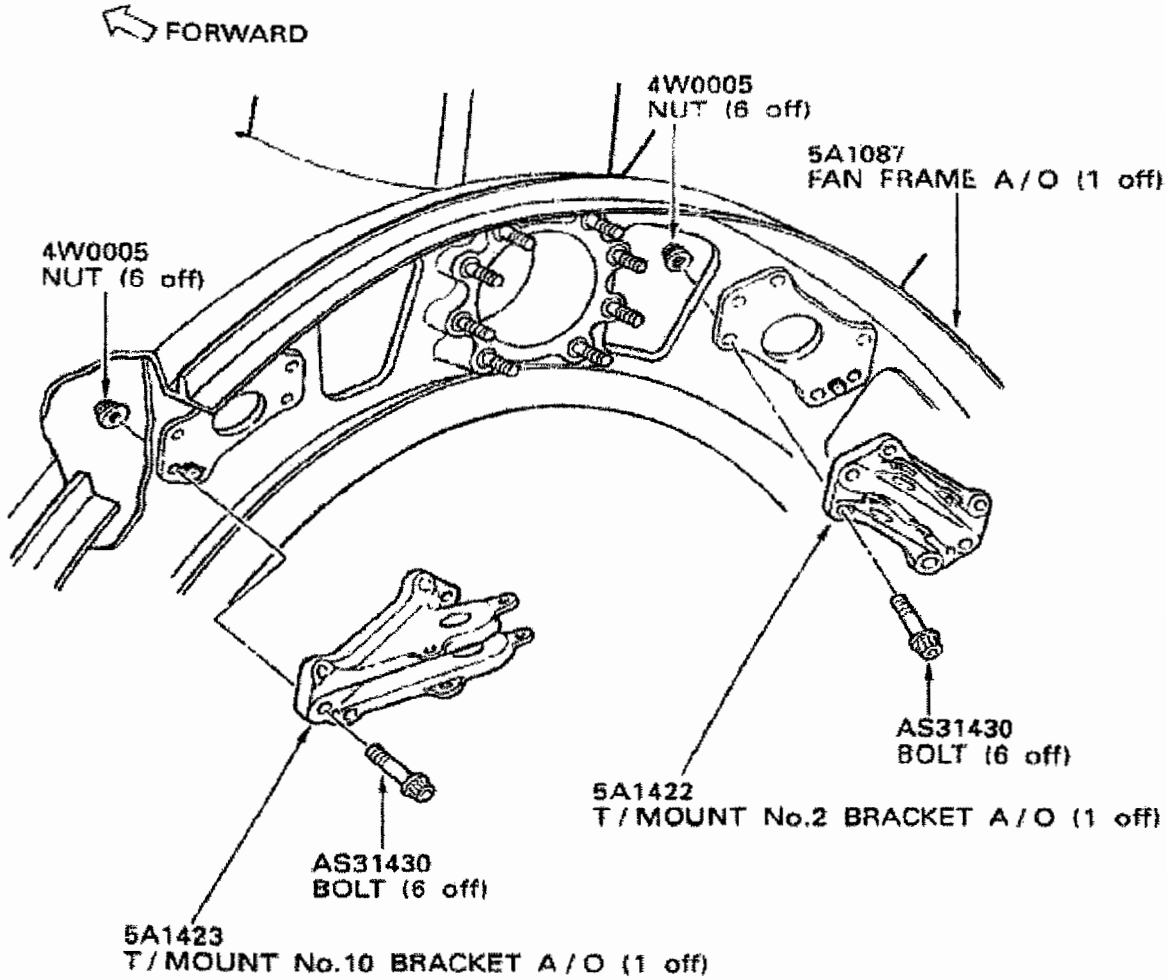
Fan Frame Assembly and Associated Details - Before Alteration
Figure 1 (Sheet 3 of 3)



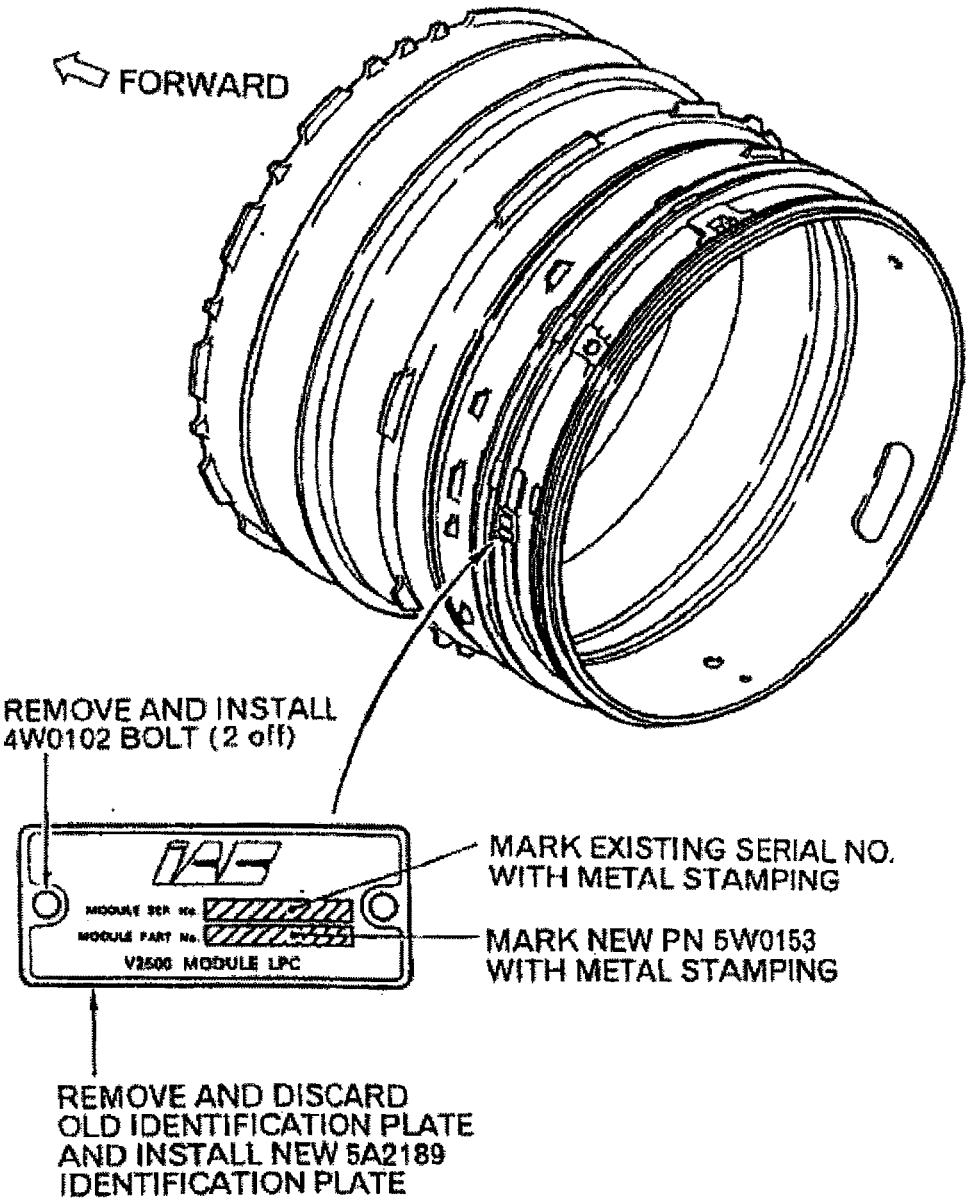
Fan Frame Assembly and Associated Details - After Alteration
Figure 2 (Sheet 1 of 3)



Fan Frame Assembly and Associated Details - After Alteration
Figure 2 (Sheet 2 of 3)



Fan Frame Assembly and Associated Details - After Alteration
Figure 2 (Sheet 3 of 3)



Reidentification of the New Module Identification Plate
Figure 3