International Aero Engines

SERVICE BULLETIN

ENGINE - TURBINE EXHAUST CASE ASSEMBLY - PROVIDE HEATSHIELDS FOR THE NO.5 BEARING TUBE ELBOWS - CATEGORY CODE 5 - MOD.ENG-72-0104

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines before Serial No. V0172.*

*The Serial Number shown is of a preliminary nature and is provided for advanced planning only. A future revision to this Sevice Bulletin will confirm final Serial Number effectivity.

B. Reason

(1) Condition

High turbine exhaust case temperature immediately after engine shutdown may cause oil coking in the No.5 bearing compartment service tubes.

(2) Background

This condition was observed during repair development.

(3) Objective

To minimize the formation of coke in the No.5 bearing oil tubes.

(4) Substantiation

Not necessary.

(5) Effects of bulletin on workshop procedures:

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

C. Description

(1) To avoid oil coking in oil feed and scavenge tubes, heat shields have been provided for the oil tubes elbows. In addition 2 new brackets and 1 clamp has been provided to the present configuration.

(2) Incorporation of this service bulletin can be subsequent to the service bulletin V2500-ENG-72-0056. In such case the use of the oil tubes featuring the antiwear sleeves is permissible

D. Approval

The part number changes and/or part modifications described in Sections 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 Model listed.

E. Compliance

Category Code 5

Accomplish when the engine is disassembled sufficiently to afford access to the affected subassembly (i.e. modules, accessories, components, build groups) and to all affected spare subassemblies.

F. Manpower

Estimated manhours to incorporate the intent of this bulletin:

Venue	Estimated Manhours
(1) In service	Not applicable
(2) At overhaul	35 minutes

G. Material - Price and Availability

(1) Modification Kit not required.

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

Tooling - Price and Availability

Special tools are not required.

I. Weight and Balance

(1) Weight change	Not significant
(2) Moment arm	No effect

(3) Datum — Engine Front Mount Centerline (Powerplant Station P.P.S.100)

J. Electrical Load Data

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

K. References

(1) Internal Reference No.

EC89VF009

Other References

IAE V2500 Service Bulletin:

V2500-ENG-72-0056 (Engine - Turbine Exhaust Case Assembly - Oil Feed Tube Assembly to Incorporate Wear Sleeve at the Tube Clipping Point.

V2500 Standard Practices Manual, Torque Tightening Technique, IAE Control No. 70-41-00

V2500 Process and Consumable Index.

L. Other Publications Affected

(1) V2500 Illustrated Parts Catalog. Chapter/Section 72-50-53 to add the new parts.

(2) V2500 Engine Manual - Chapter/Section 72-50-50 to update illustration 72-50-50-990-008.

2. Accomplishment Instructions

A. Rework Instructions.

(1) There are no rework instructions necessary for this Service Bulletin.

B. Removal Instructions for Engines Not Incorporating Service Bulletin V2500-ENG-72-0056. See Figure 1.

(1) Identify the Oil feed Tube

(2) Remove the Nut and Bolt which hold the PN MS21106-6 Clamp, to the PN 4P8015 Bracket.

(3) Remove the Bolts and Nuts which attach the PN 4P8015 bracket, to the Inner Support of the Case.

(4) Remove and discard the PN 4P8015 bracket. Retain Bolts and Nuts.

(5) Remove and discard the PN MS21106-6 Clamp, from the Oil Feed Tube.

(6) Identify the Oil Scavenge Tube.

(7) Remove the Nut, the Bolt, the Washer and the two Spacers which hold the PN MS21106-12 Clamp, to the PN 4P8049 Bracket.

(8) Discard the PN 4W0109 Bolt the PN 4P8051 Washer and the two PN 4P8050 Spacers. Retain the PN 4W0001 Nut.

(9) Remove the Bolts and Nuts which attach the PN 4P8049 Bracket, to the Inner Support of the Case.

(10) Remove and discard the PN 4P8049 bracket .Retain Bolts and Nuts.

(11) Remove and discard the PN Ms21106-12 Clamp, from the Oil Scavenge Tube.

C. Removal Instructions for Engines Incorporating Service Bulletin V2500-ENG 72-0056. See Figure 1.

(1) Identify the Oil Feed Tube

(2) Remove the Nut and Bolt which hold the PN Ms2106-7 Clamp, to the PN 4P8015 Bracket.

(3) Remove the Bolts and Nuts which attach the PN 4P8015 Bracket, to the Inner Support of the Case.

(4) Remove and discard the PN 4P80156 Bracket. Retain Bolts and Nuts.

(5) Remove and discard the PN Ms21106-7 Clamp, from the Oil Feed Tube.

(6) Identify the Oil Scavenge Tube.

(7) Remove the Nut and Bolt which hold the PN MS21106-13 Clamp, to the PN 4P8049 Bracket.

(8) Remove the Bolts and Nuts which attach the PN 4P8049 bracket, to the Inner Support of the Case.

(9) Remove and discard the PN 4P8049 Bracket . Retain Nuts and Bolts.

(10) Remove and discard the PN Ms21106-13 Clamp, from the Oil Scavenge Tube. Retain the Bolt and the Nut.

D. Assembly Instructions. See Figure 2

(1) Install new PN 4T8046 Lower Thermal Blanket, and new PN 4T8047 Upper Thermal Blanket, on the PN 4B8046 or PN 4B8067 Oil Feed Tube.

NOTE: It is permissible the use of superseded PN 4B8067 Oil Feed Tube, featuring the antiwear sleeves.

(2) Safe the Clips (at 3 positions) on the Thermal Blankets with locking wire.

(3) Install new PN 4P8115 Clamp, on the Oil Feed Tube.

(4) Attach new PN 4P8113 Bracket, to the Inner Support of the Case with old Nuts and Bolts.

(5) Torque the Bolts to 101.784 lbfin. (11,4 Nm). See in Reference (2), Chapter/Section 70-41-00 Torque Tightening Technique.

(6) Attach the PN 4P8115 Clamp, to the PN 4P8113 Bracket, with the old Nut and Bolt.

(7) Torque the Bolt to the 17.701 lbfin. (2,0 Nm). See in Reference (2), Chapter/Section 70-41-00 Torque Tightening Technique.

(8) Install new PN 4T8044 Lower Thermal Blanket, and new PN 4T8045 Upper Thermal Blanket, on the Oil Scavenge Tube.

(9) Safe the Clips (at 3 positions) on the Thermal Blankets with CoMat 02-138 locking wire.

(10) Install new PN 4P8111 Clamp, on the Oil Scavenge Tube.

(11) Attach new PN 4P8114 bracket, to the Inner Support of the Case with old Nuts and Bolts.

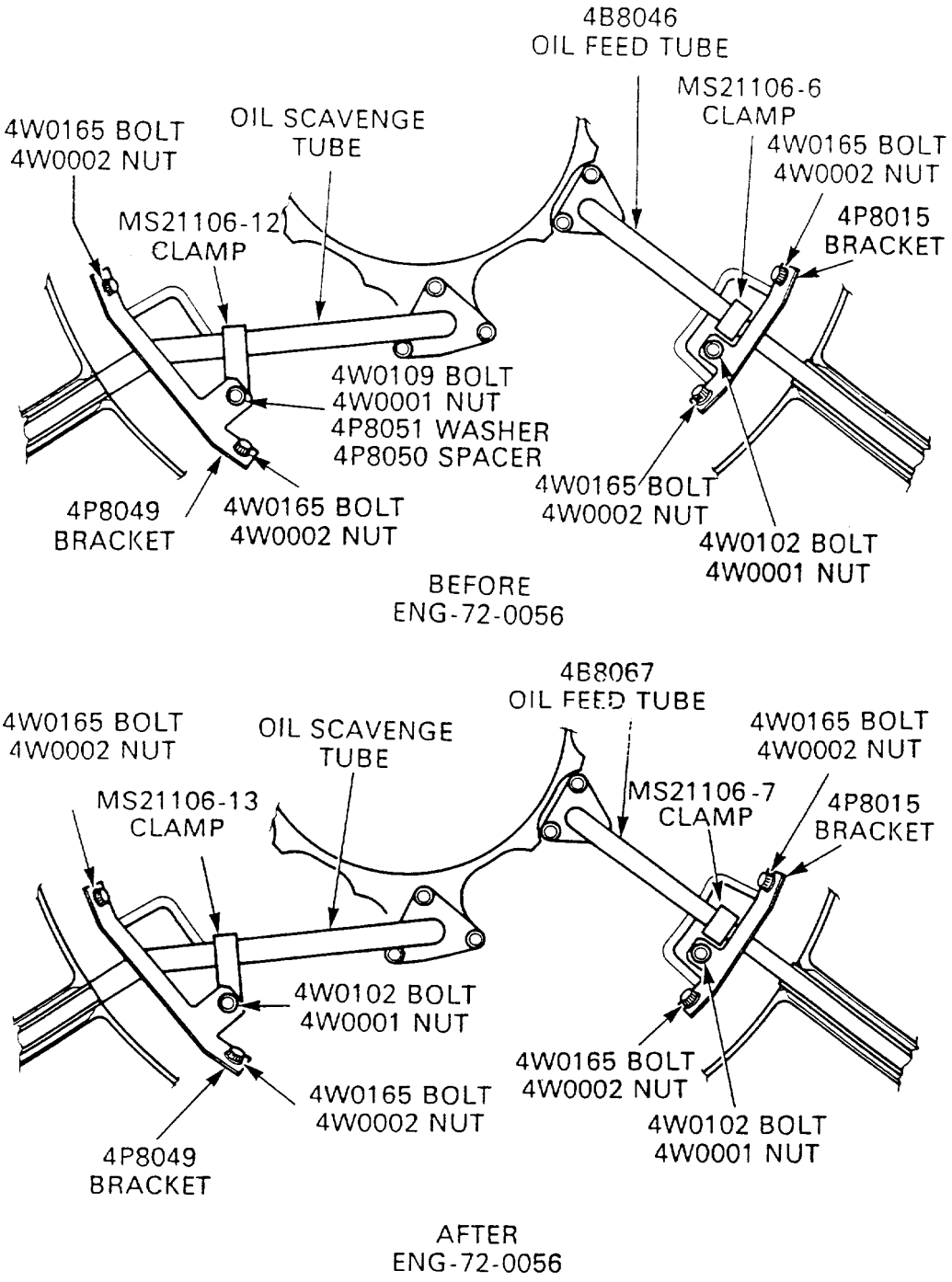
(12) Torque the Bolts to 101.784 lbfin. (11,4 Nm). See in Reference (2), Chapter/Section 70-41-00 Torque Tightening Technique.

(13) Attach the PN 4P8111 Clamp to the PN 4P8114 bracket with the PN 4W0102 Bolt and PN 4W0001 Nut

(14) Torque the Bolt to the 39.828 lbfin. (4,5 m). See in Reference (2), Chapter/Section 70-41-00 Torque Tightening Technique.

E. Recording Instructions

(1) A record of accomplishment is necessary.



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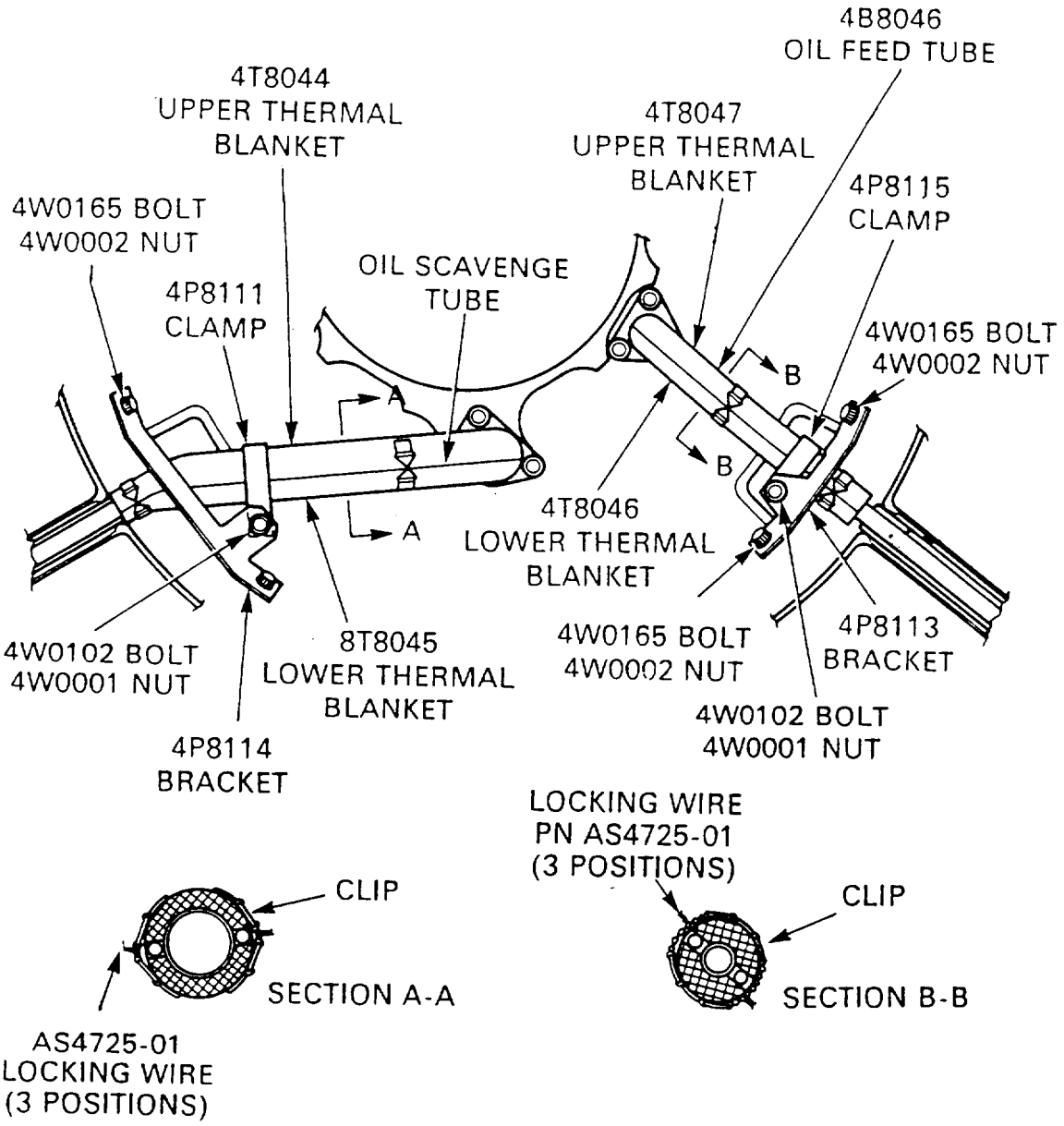
Prepare the Oil Tubes for the Insulation Shielding Assembly
Fig.1



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Assembly of Insulation Shielding
Fig.2

3. 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.)	Instructions Disposition
4B8046 or 4B8067 (72-50-53)	1	251.00	.Tube,A/0 Oil Feed	4B8067 or 4B8046 (01-170)	(A) (B) (S1)
4P8113 (72-50-53)	1	78.80	.Bracket	4P8015 (01-320)	(A) (D) (S1)
4P8115 (72-50-53)	1	39.60	.Clamp	MS21106-7 (01-370)	(A) (D) (S1)
4T8046 (72-50-53)	1	552.00	.Blanket,A/0 Thermal Lower	- (01-372)	(A) (S1)
4T8047 (72-50-53)	1	552.00	.Blanket,A/0 Thermal Upper	- (01-382)	(A) (S1)
4P8111 (72-50-53)	1	44.10	.Clamp	MS21106-13 (01-650)	(A) (D) (S1)
4T8044 (72-50-53)	1	686.00	.Blanket.A/0 Thermal Upper	- (01-672)	(A) (S1)
4T8045 (72-50-53)	1	686.00	.Blanket,A/0 Thermal Lower	- (01-682)	(A) (S1)
4P8114 (72-50-53)	1	46.70	.Bracket	4P8049 (01-690)	(A) (D)

C. Instruction/Disposition Code Statements:

(A) New part is currently available

(B) Old parts coded (B) can be used.

(D) Old parts coded (D) will be scrapped.

(S1) New parts coded (S1) must be fitted as a set. Mixing of old and new parts is not permissible.

D. Consumable Required to Incorporate This Bulletin

CoMat	02-138	Locking wire

NOTE: The estimated 1992 Unit Price shown are provided for planning purpose only and do not constitute a firm quotation. Consult the IAE Price Catalog or contact IAE's Spare Parts Sales Department for information concerning firm prices.