International Aero Engines

SERVICE BULLETIN

ENGINE - OIL - TO REMOVE THE INLET DUCT RIB OF THE ACOC INLET DUCT ASSEMBLY - CATEGORY CODE 6 - MOD.ENG-79-0048

1. Planning Information

A. Effectivity

(1) Aircraft: Mcdonnell Douglas MD-90

(2) Engines: (a) V2525 - D5 Engines prior to Serial number V20029.
(b) V2528 - D5 Engines prior to serial number V20029.

(3) Concurrent Requirements:

None

B. Reason

(1) Condition

High stress on lower/rear rib of ACOC Inlet Duct.

(2) Background

This condition was observed during the flight test program.

(3) Objective

To reduce stress area on the duct.

(4) Substantiation

The configuration change shown in this Service Bulletin has been substantiated by analysis.

(5) Effect 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

The ribs of ACOC Inlet Duct are removed to reduce high stress on the rib.

D. Approval

The Part Number changes and part modifications 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 Model listed.

E. Compliance

Category Code 6

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

F. Manpower

Estimated Manhours to incorporate the full intent of this Bulletin:

Venue	Estimated Manhours
(1) In Service	Not applicable
(2) At overhaul	
To rework the Inlet Duct Assembly	45 minutes
Total :	45 minutes

(NOTE : All parts are accessible at overhaul.)

G. Material - Price and Availability

(1) Modification Kit is not required.

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

H. Tooling

(1) Grinder, hand hold pneumatic
(2) Files, rotary - silicon carbide type

I. Weight and Balance

(1) Weight change	None
(2) Moment arm	No effect
(3) Datum	Engine front mount centerline (Power Plant Station (P.P.S.) 100)

J. Electrical Load Data

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

K. Reference

(1) Internal Reference No.

94VJ042

(2) Other References

V2500 Engine Illustrated Parts Catalog, Chapter/Section 79-21-42.
V2500 Engine Manual, Chapter/Section 72-00-32, Removal-04 and Installation-02.
V2500 Standard Practices/Processes Manual, Chapter 70-09-00, Marking of Parts and 70-35-03, Hand Polish and Blend Procedure.
V2500 Standard Practices/Processes Manual, Chapter 70-38-02-300-503, Application of Chromate Conversion Coatings for Aluminium.
V2500 Facilities Equipment Manual.
V2500 Overhaul Processes and Consumable Index.

L. Other Publications Affected

(1) V2500 Engine Illustrated Parts Catalog (S-V2500-3IA), Chapter/ Section 79-21-42.

2. Accomplishment Instructions

A. Rework Instructions

(1) Affected part numbers of the ACOC Inlet Duct are follows:

(a) 5TO116 (79-21-42, 01-400)
(b) 5TO101 (79-21-42, 01-400)

(2) Remove the rib of the ACOC Inlet Duct by grinder and files as Figures 1 and 2.

(3) Reidentify the part number of the ACOC Inlet Duct from 5TO116 to 5TO134 adjacent to the existing part number by vibration peening. Delete the existing part number with a single solid line, Refer to 1.K.(3).

(4) Reidentify the part number of the ACOC Inlet Duct from 5TO101 to 5TO138 adjacent to the eisting part number by vibration peening by hand. Delete the existing part number with a single solid line, Refer to 1.K.(3).

(5) Remove the burrs at new and deleted marking positions by CoMat 05-016 or 05-017 Garnet Paper.

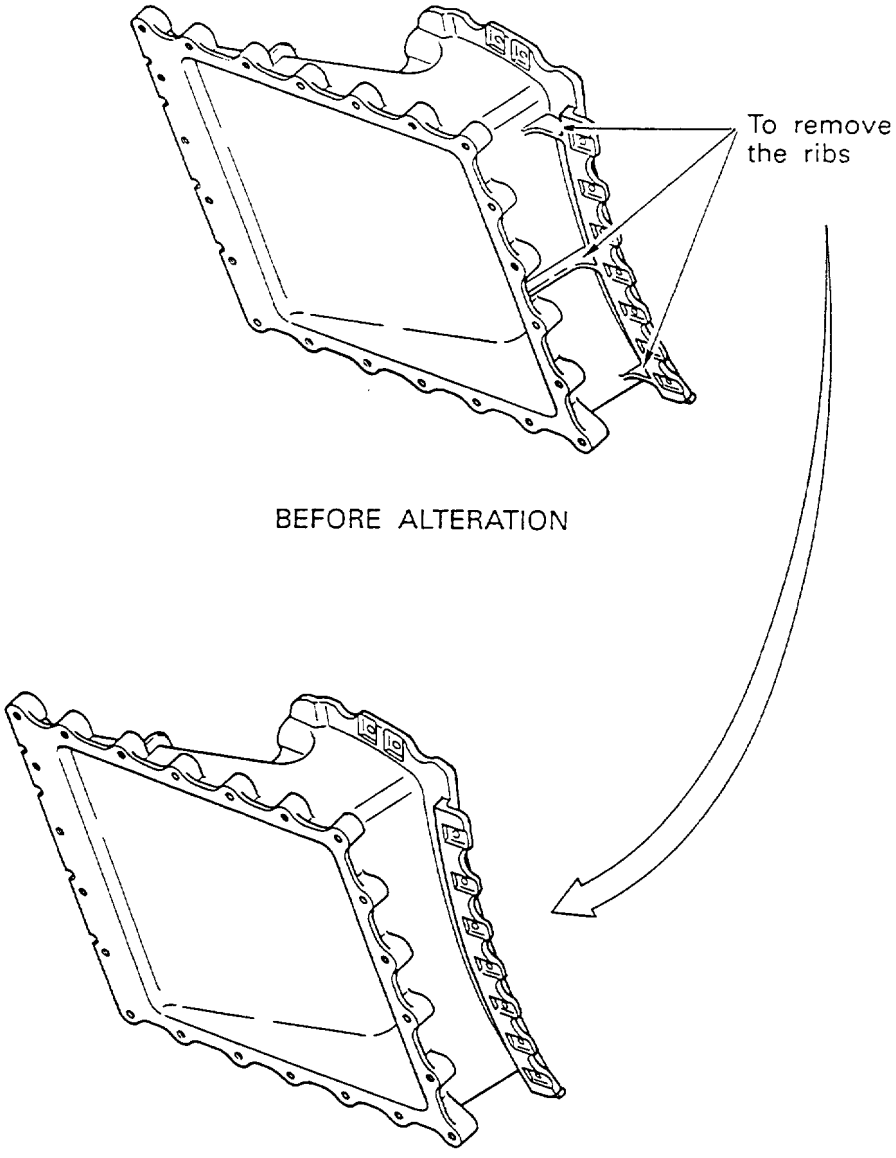
(6) To apply the CoMat 01-275 chromate conversion coating to ground face of the rib and non anodic portion by the brush, Refer to 1.K.(4).

B. Assembly Instructions

Assemble the new 5TO134 and 5TO138 ACOC Inlet Ducts by the approved procedure in the reference 1.K.(2).

C. Recording Instructions

A record of accomplishment is necessary.



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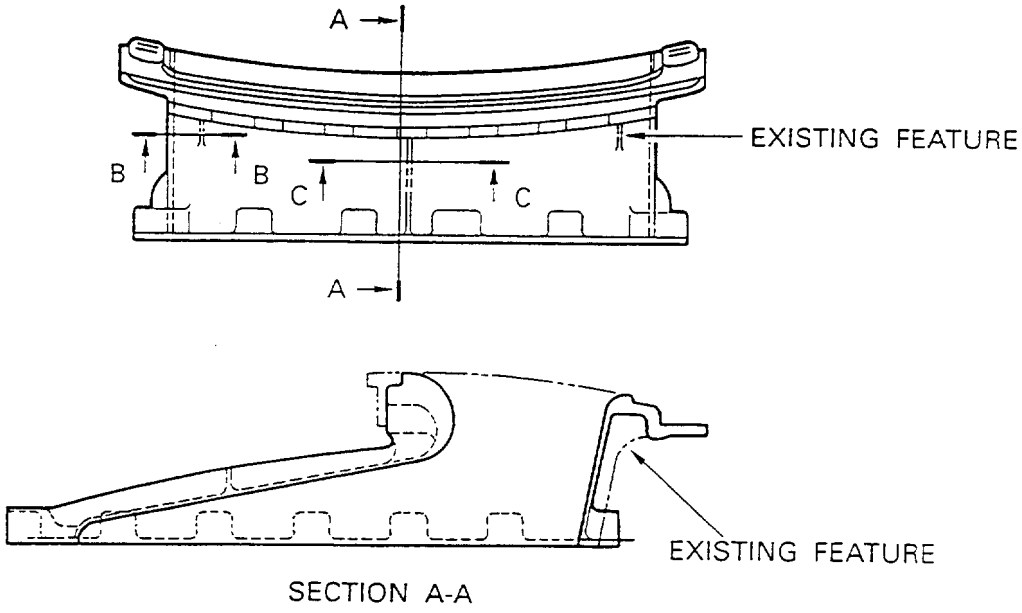
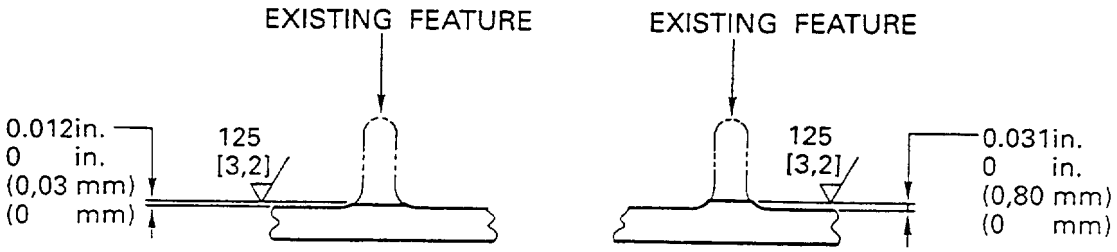
Before and After the Alteration of the ACOC Inlet Duct Assembly
Fig.1





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Rework of the ACOC Inlet Duct Assembly
Fig.2

3. Material Information

Applicability: For each V2500 Engines to incorporate this Bulletin.

A. Kits associated by 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
5TO134 (79-21-42)	1	15,080.00	.Duct, A/O Inlet - ACOC	5TO116 (01-400)	(A)(B)(1D) (S1)
5TO138 (79-21-42)	1	-	.Duct, A/O Inlet - ACOC	5TO101 (01-400)	(B)(1D)(S1)

Reference: Material of the Duct, A/O Inlet - ACOC

AMS 4218 (Aluminium A356)

C. Instruction/Disposition Code Statements:

(A) New part is currently available for sale.
(B) Old part is no longer be available for sale.
(1D) Old part can be reworked to new part.
(S1) Old and new parts are freely and fully interchangeable, both physically and functionally.

NOTE: The estimated 1995 unit prices shown are provided for planning purposes 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.

D. Consumable Materials:

CoMat 01-275 Chromate conversion coating for aluminum
CoMat 05-016 Garnet paper
CoMat 05-017 Garnet paper