

SERVICE BULLETIN

ENGINE - FUEL AND CONTROL - POWER PLANT- EEC CHANNEL A AND B HARNESSES (LOOM A AND B) - ENGINE DEDICATED ALTERNATOR HARNESS CONNECTORS WITH IMPROVED LOCKING FEATURE - CATEGORY CODE 4 - MOD.ENG-73-0092

See Vendor Bulletin N

1. Planning Information

A. Effectivity

- (1) Aircraft McDonnell Douglas MD-90
- (2) Engine (a) V2525-D5 Engines prior to Serial No.20112
 - (b) V2528-D5 engines prior to Serial No.20112

B. Concurrent Requirements

None.

C. Reason

(1) Condition

The Engine Dedicated Alternator (E.D.A.) stator connectors have suffered from faults caused by overheating and pin burning on the MD-90 installation.

(2) Background

A number of E.D.A. stator connections for loom A (pl-8024) and loom B (pl-8017) were found to be inadequately locked on engines in service this resulted in pin burning in the stator or the harness. In each case they were apparently undisturbed since delivery, indicating that the connectors had worked themselves loose.

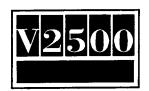
(3) Objective

Incorporation of this Service Bulletin is designed to maintain reliability.

(4) Substantiation

The changes introduced by this Service Bulletin (Modification) have been the subject of satisfactory trial installation on a V2500-D5 mock-up engine and the extensive engineering assessment.

(5) Effect of Bulletin on Workshop Procedures:



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Removal/Installation
Disassembly/Assembly
Cleaning
Inspection/Check
Repair
Testing

Not affected Not affected Not affected Not affected Not affected

(6) Supplemental Information

None.

D. <u>Description</u>

(1) This Service Bulletin introduces back-to-back clipping fitted over the E.D.A. connector nuts P1-6017 and P1-6024 to overcome the possibility of the connectors unlocking.

The changes introduced by this Service Bulletin are as follows:

(a) Clip point 2684 is added to prevent the connector nuts unlocking.

E. 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.

F. Compliance

Category Code 4

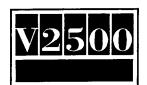
Accomplish at the first visit of an engine to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action or the reason for engine removal.

G. Manpower

Estimated man-hours to incorporate the full intent of this Bulletin:

Venue Estimated Man-Hours

- (1) In service
 - (a) To gain access 12 minutes
 - (b) To install new clipping point 2 minutes
 - (c) To return Engine to flyable status 15 minutes



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Total 29 minutes

(2) At Overhaul

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

(a) To install new clipping

point 2 minutes

Total 2 minutes

- H. <u>Material Price and Availability</u>
 - (1) Modification Kit not required.
 - (2) See "Material Information" section for prices and availability of future spares.
- I. Tooling Price and Availability

Special tools are not required.

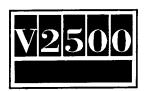
- J. Weight and Balance
 - (1) Weight change None
 - (2) Moment arm No effect
 - (3) Datum Engine front mount centreline (Power Plant Station (P.P.S.) 100)
- K. Electrical Load Data

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

- L. <u>References</u>
 - (1) Internal Reference No.

96VR029

- M. Other Publications Affected
 - (1) Illustrated parts catalogue will be revised.



2. Accomplishment Instructions

A. Rework Instructions

None.

B. Assembly Instructions

To ensure the connectors do not lose their locking torque during Service Bulletin embodiment.

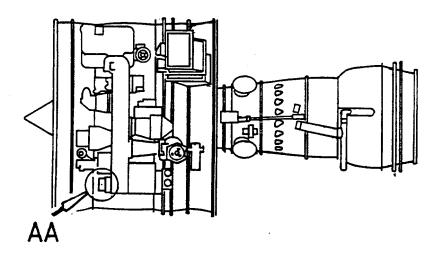
- (1) Use soft-jaw pliers to tighten the two connectors.
- (2) Use OMat 262, marker, to make a mark on the connector nut and backshell to show if the connectors are not locked.
- (3) Put the two clips in position over the connector backshells and assemble the clips, refer to Fig.2.
- (4) Make sure the connector coupling nuts are tight.
- (5) Push the two clips over the connector coupling nuts and tighten the nut (4W0001), refer to Fig.3.
- (6) Make sure the clips are positioned correctly, then torque the clip nut (4W0001).

C. Recording Instructions

(1) A record of accomplishment is necessary.



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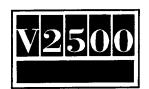


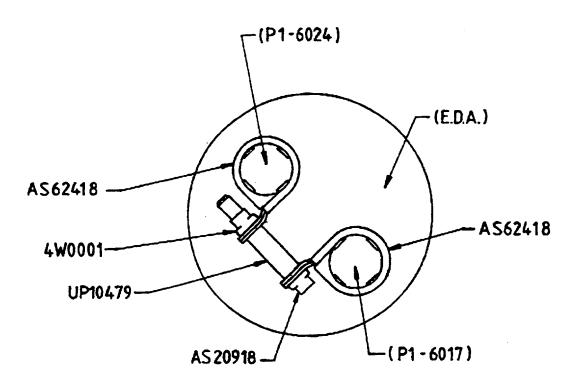
VIEW SHOWING THE UNDERSIDE OF THE ENGINE

General view of engine Fig.1

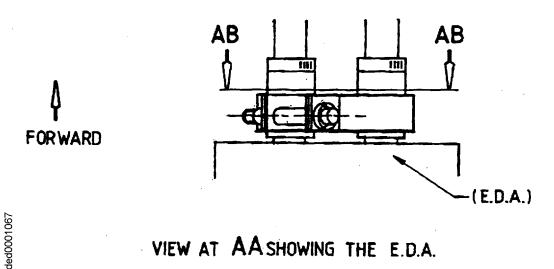
V2500-ENG-73-0092

ded0001066



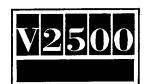


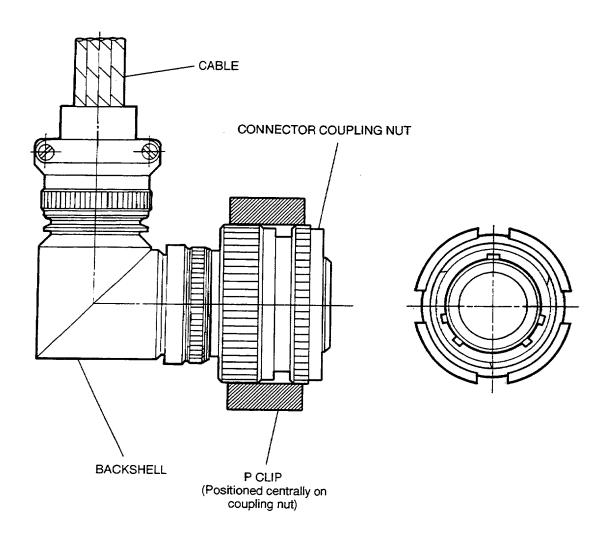
SECTION AB SHOWING CLIP POINT 2684



VIEW AT AASHOWING THE E.D.A.

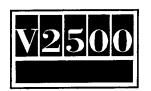
E.D.A. conection - assembly of Fig.2





ded0001068

E.D.A. connection - assembly of Fig.3



3. Material Information

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. <u>Kits associated with this Bulletin:</u>

None

B. Parts affected by this Bulletin:

New		Est'd		Old		
Part No.		Unit		Part	No.	Instructions
(ATA No.)	Qty	Price (\$)	Keyword	(IPC	No.)	Disposition

A. Kits associated with this Bulletin:

None.

B. Parts affected by this Bulletin:

AS20918 (71-51-51)	1	Bolt, bihex hd (0.190 dia x 1.125) CP2684	- (02-241)	(A)(B)
UP10479 (71-51-51	1	Spacer (10mm) CP2684	- (02-246)	(A)(B)
4W0001 (71-51-51)	1	Nut, self locking, bihex (0.190 dia) CP2684	- (02-248)	(A)(B)
AS62418 (71-51-51)	1	Clip (28,57mm (1.125)) CP2684	- (02-252)	(A)(B)
AS62418 (71-51-54)	1	Clip (28,57mm (1.125)) CP2684	- (01-900)	(A)(B)

C. <u>Instructions/Disposition Code Statements:</u>

- (A) New part is currently available.
- (B) Additional.