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V2500-A5 SERIES PROPULSION SYSTEM SERVICE BULLETIN

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin EV2500-70-0898 and the Initial Issue of the Supplement

Bulletin Initial Issue

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Supplement Initial Issue

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LIST OF EFFECTIVE PAGES

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Printed in Great Britain

ENGINE – IMPROVED MANIFOLD LOOP CLAMP1. Planning InformationA. Effectivity Data

(1) (For Airbus A319)

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5

Engine Serial Nos.V10001 thru V12000

Engine Serial No.V12203

Engine Serial No.V12205

Engine Serial No.V12207

Engine Serial No.V12209

(2) (For Airbus A320)

Engine Models Applicable

V2527-A5, V2527E-A5

Engine Serial Nos.V10001 thru V12000

Engine Serial No.V12203

Engine Serial No.V12205

Engine Serial No.V12207

Engine Serial No.V12209

(3) (For Airbus A321)

Engine Models Applicable

V2530-A5, V2533-A5

Engine Serial Nos.V10001 thru V12000

Engine Serial No.V12203

Engine Serial No.V12205

Engine Serial No.V12207

Engine Serial No.V12209

B. Concurrent Requirements

There are no concurrent requirements.

C. Reason

- (1) Problem: Some of the silicone rubber material cushions on the existing Manifold Loop Clamps, used in the V2500 diffuser and combustion group exhibit cracking after initial engine testing conducted in Middletown.
- (2) Background: Clamps are being exposed to test temperatures that exceed the limits of the silicone rubber cushion material. Also, the process used to manufacture the clamp cushion may result in a thin wall condition of the silicone material, under installation condition the reduced thickness of the material may crack when exposed to stresses caused by the expansion ratio differences between the silicone rubber and the fiberglass reinforcement material.
- (3) Objective: Replace the existing manifold Loop Clamp with a new manifold Loop Clamp that is fitted with a Teflon/Kevlar cushion that exhibits improved temperature resistance.
- (4) Substantiation: validation testing performed consisted of:
 - (a) Heat Soak Test
 - (b) Engine Pilot Lot Test
 - (c) Individual clamp tests at ambient and elevated temperature. The heat soak test was conducted to determine the effects of high temperatures on the existing loop clamp cushion. The pilot lot test was conducted to verify that the environment within the Middletown test cell will not adversely affect the new clamp cushion. The individual clamp tests were conducted to determine comparable clamp damping and spring rate values between the current and proposed manifold loop clamps.
- (5) Effects of Bulletin on:

Removal/Installation: None.

Disassembly/Assembly: None.

Cleaning: None.

Inspection/Check: None.

Repair: None.

Testing: None.

(6) Supplemental Information

None.

D. Description

Make available a clamp with improved temperature characteristics.

E. Compliance

Category 8

Accomplish based upon experience with the prior configuration.

F. Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the Engine Model listed.

G. Manpower

(1) In Service

Not Applicable.

(2) At Overhaul

Not Applicable.

H. Weight and Balance

(1) Weight Change

None.

(2) Moment Arm

No Effect.

(3) Datum

Engine Front Mount Centerline (Power Plant Station (PPS) 100)

I. Electrical Load Data

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

J. Software Accomplishment Summary

Not Applicable.

K. References

1. V2500 Engine Illustrated Parts Catalogs (S-V2500-2IA, S-V2500-2IB, S-V2500-5IA, S-V2500-5IB, S-V2500-6IA, S-V2500-6IB, S-V2500-7IA, and S-V2500-71B), Chapter/Section 73-11-41 Figure 1 Item 365 and Figure 3 Item 450.
2. V2500 Engine Manual (E-V2500-1IA), Chapter/Section 72-42-00.
3. Internal Reference No. - 04VB007.
4. ATA Locator - 73-11-41.

L. Other Publications Affected

Not applicable.

M. Interchangeability of Parts

Old and new parts are directly interchangeable.

N. Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (No)

Revision to Table of Limits (No)

Inspection Procedures (No)

O. General Information

The Material Information section of this Service Bulletin provides the latest information concerning the availability of the affected parts.

2. Material Information

A. Industry Support Program

Not Applicable.

B. The material data that follows is for each engine.

73-11-41

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5
Engines:

| FIG- NUMBER | ITEM NUMBER | NEW PART NUMBER | QTY | PART TITLE | MAT | OLD PN | INSTR - DISP |
|----------------|----------------|--------------------|-----|--------------------------|-----|-----------|--------------------|
| 01-365 | | ST1557-05 | 10 | Clamp - Loop, Cushion | - | ST1540-05 | (2) (B) (C) (I) |
| 03-450 | | ST1557-05 | 16 | Clamp - Loop, Cushion | - | ST1540-05 | (2) (B) (C) (I) |

C. Instructions/Disposition Code Statements:

Parts Modification Conditions

(2) The new part is a replacement part only, and cannot be obtained by modification of the old part.

Spare Parts Availability

(B) The new part will be available approximately November 30, 2005

(C) The old part will continue to be supplied.

Cleaning, Inspection and Repair Information

(I) The cleaning, inspection and repair requirements are the same for the old and new part. The applicable engine manuals will be revised.

D. Tooling - Price and Availability

Special tools are not required to accomplish this Service Bulletin.

E. Reidentified Parts

Not Applicable.

F. Other Material Information Data

Not Applicable.

3. Accomplishment Instructions

- (1) Not applicable
- (2) Recording Instructions
 - (a) A record of accomplishment is not required.

ENGINE - IMPROVED MANIFOLD LOOP CLAMPSupplement

V2500-A5

1. Modification Kit

A. There is no kit provided to do this Service Bulletin.

2. Material Cost

NOTE: The prices 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 Catalog for current prices.

A. The estimated price of new material to do this Service Bulletin using new replacement parts is \$985.40.

B. There is no kit provided to do this Service Bulletin.

3. New Production Parts

| New Production Part Number | Description | Unit Price US Dollars |
|-------------------------------|---------------------|--------------------------|
| ST1557-05 | Clamp-Loop, Cushion | 37.90 |