International Aero Engines
NON-MODIFICATION
SERVICE BULLETIN

Date: Feb.20/2007

ENGINE – EXTERNALS – INSPECTION OF OIL SCAVANGE TUBE AND CLIPPING POINT – NON-MODIFICATION SERVICE BULLETIN

V2500-D5 SERIES PROPULSION SYSTEMS NON-MODIFICATION SERVICE BULLETIN

This document transmits Initial issue of Non-Modification Service Bulletin V2500-ENG-79-0091

Document History

Service Bulletin Revision Status

Initial Issue	Feb.20/2007

Bulletin Initial Issue

Remove	Incorporate	Reason for change
	Pages 1 to 7 of the Service Bulletin	Initial Issue

List of Effective Pages

The effective pages to this Non-Modification Service Bulletin are as follows:

Page	Revision Number	Revision Date
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1	Initial Issue	Feb.20/2007
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7	Initial Issue	Feb.20/2007

ENGINE – EXTERNALS – INSPECTION OF OIL SCAVANGE TUBE AND CLIPPING POINT

1. Planning Information

A. Effectivity

(1) Boeing MD-90
V2525-D5 and V2528-D5 Engines.

B. Reason

A repeat oil tube fracture has been discovered on MD-90 aircraft. The fracture can lead to complete loss of oil from the system. This could result in an In Flight Shut Down.

The cause of previous fractures has been attributed to deformation from the intended design profile of tube 6A5082 which may have occurred during maintenance.

Modal vibration tests have also been carried out on IAE's mock-up engine in Derby. The results of these tests have shown that when the tube upper support clip at CP2511 is either missing or broken, a vibration mode is excited in oil tube p/n 6A5082 that is not normally present with the clip correctly configured.

With the upper support clip CP2511 missing or broken, the coincident frequency is contributory to the fracture of oil tube P/N 6A5082.

C. Description

This NMSB describes a once around the fleet inspection of oil tube 6A5082 and the tube upper support clip at CP2511 for engines on-wing or at overhaul. The inspection requires that the tube is checked for any deformation and the clip is checked to confirm if it is broken or missing.

D. Compliance

In Service V2500-D5 Engines

Category 3

IAE recommends that the action detailed in part 3.A, inspection of the clip point and tubes, is completed within 450 flight hours from receipt of this Service Bulletin.

In Overhaul Shop V2500-D5 Engines

Category 4

Accomplish at the first visit of an engine or module to a maintenance base capable of compliance with the accomplishment.

E. Approval

The compliance at 1.D. and the procedure outlined in Section 3 of this Non-Modification Service Bulletin, comply with the Federal Aviation Regulations and are FAA approved for the engine models listed.

E. Manpower

(1) In Service

(a) Time to gain access

18 minutes.

(b) Time to inspect

15 minutes.

(c) Time to restore to serviceable condition

22 minutes.

(d) Total

55 minutes.

(2) At Overhaul

Applicable (Hours not affected).

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

F. Material Price and Availability

Not applicable.

G. Tooling Price and Availability

Not applicable.

H. References

(1) Engineering Change No. EC06VR1019.

2. Material Information

None.

3. Accomplishment Instructions

A. Inspection of Tube and Clip Point

(1) Locate oil tube 6A5082 on the engine, see Figure 1. Visually examine tube 6A5082 for deformation. Pay special attention to the straight sections supported by the lugs, highlighted by the two dotted lines in Figure 2. Use a straight edge, see Figure 3. These figures are for reference only.

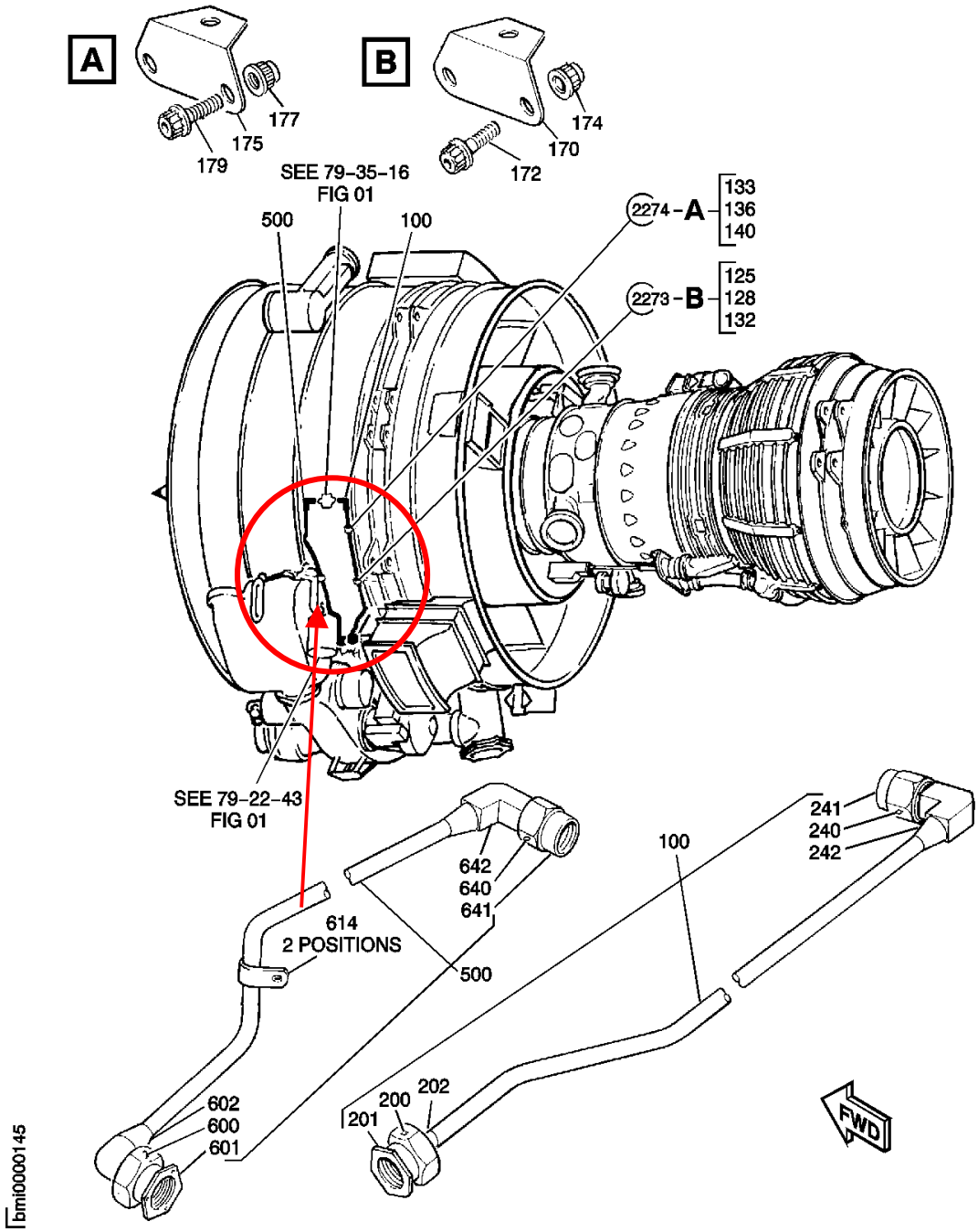
(a) Tube is deformed	Replace the tube within 50 flight cycles. Ensure no pre-loading, stress or deformation occurs during installation.

(2) Visually inspect clip P/N AS62404 at the upper clip point at CP2511 and the lower clip point CP2267. Refer to Figure 2. This figure is for reference only.

(a) Clip rubber is worn or damaged	Replace the clip.
(b) Clip is fractured, missing or loose	Replace the clip immediately. Replace the oil pressure tube 6A5082 within 50 flight cycles. Check bracket 6A5687 (post SB 71-0114) Tighten bracket if it is loose. Replace within 50 flight cycles if it is cracked.
(c) Clip cannot be fitted without pre-loading tube 6A5082	Replace tube 6A5082 and 6A5297 within 50 flight cycles.

(3) Retain all rejected parts and inform IAE Technical Services of any discrepancies.

B. A record of accomplishment is required. When the accomplishment instructions are completed, write V2500 NMSB ENG 79-0091 in the engine log book. Inform the local IAE representative that this NMSB has been accomplished.



Location of oil scavenge tube and clipping points on the engine.

Figure 1

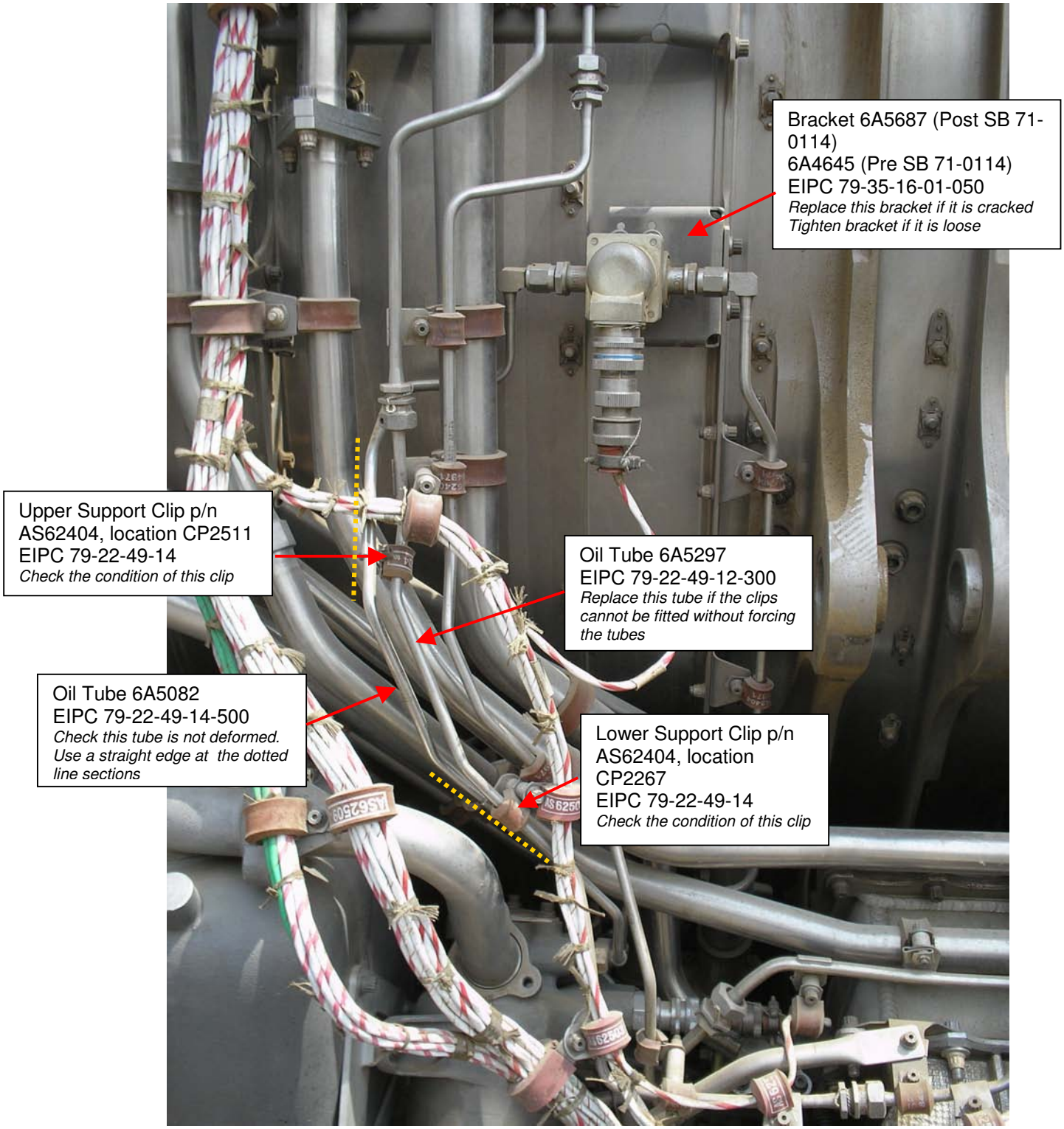


Figure 2. Location of tubes and clipping points

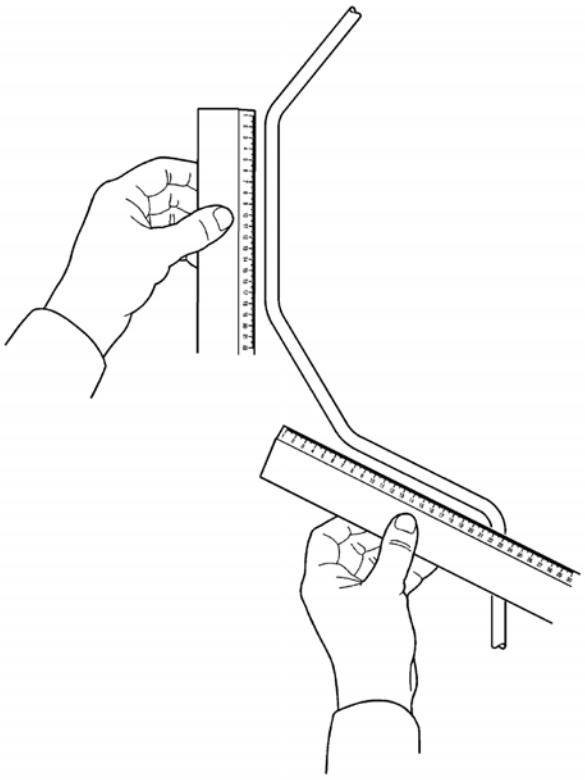


Figure 3. Check the tube straight sections using a straight edge