P U B L I C A T I O N T R A N S M I T T A L

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V2500-A5/D5 SERIES PROPULSION SYSTEM NON-MODIFICATION SERVICE BULLETIN

This document transmits the Revision 1 of Non-Modification Service Bulletin V2500-ENG-72-0618.

Document History

Non-Modification Service Bulletin Revision Status

Initial Issue Nov.10/10.

Non-Modification Service Bulletin Revision 1

Remove	Incorporate	Reason for change
All pages of the Non-Modification Service Bulletin.	Pages 1 to 10 of the Non-Modification Service Bulletin.	To update the Compliance.

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
If any have not been received please advise IAE International Aero Engines AG

International Aero Engines

SERVICE BULLETIN

NON-MODIFICATION SERVICE BULLETIN - ENGINE - HIGH PRESSURE (HP) COMPRESSOR - ONE TIME INSPECTION OF STAGE 3 ROTOR BLADE CLAPPERS

1. Planning Information

A. Effectivity

(1) Airbus A319

V2522-A5, V2524-A5, V2527M-A5 Engines with Engine Serial No. V12723, V12819, V12836, V12838, V12840, V12842, V12844, V12846, V12848, V12850, V12852, V12854, V12856 to V12896, V12898 to V13190 and Engines which have
R new Service Bulletin V2500-ENG-72-0487 blades installed between October 5th 2007 and March 31st 2009 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2522-A5, V2524-A5, V2527M-A5 Engines with Engine Serial No. from V15072 to V15090, V15176, V15262 and V15307 to V15314 (A5 SelectOne™ Production Standard).

(2) Airbus A320

V2527-A5, V2527E-A5 Engines with Engine Serial No. V12723, V12819, V12836, V12838, V12840, V12842, V12844, V12846, V12848, V12850, V12852, V12854,
R V12856 to V12896, V12898 to V13190 and Engines which have new Service
R Bulletin V2500-ENG-72-0487 blades installed between October 5th 2007 and March 31st 2009 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2527-A5, V2527E-A5 Engines with Engine Serial No. from V15072 to V15090, V15176, V15262 and V15307 to V15314 (A5 SelectOne™ Production Standard).

(3) Airbus A321

V2530-A5, V2533-A5 Engines with Engine Serial No. V12723, V12819, V12836, V12838, V12840, V12842, V12844, V12846, V12848, V12850, V12852, V12854,
R V12856 to V12896, V12898 to V13190 and Engines which have new Service
R Bulletin V2500-ENG-72-0487 blades installed between October 5th 2007 and March 31st 2009 (A5 Standard and A5 SelectOne™ Retrofit Standard).

V2530-A5, V2533-A5 Engines with Engine Serial No. from V15072 to V15090, V15176, V15262 and V15307 to V15314 (A5 SelectOne™ Production Standard).

(4) Boeing MD-90

R (a) V2525-D5, V2528-D5 Engines which have new Service Bulletin
R V2500-ENG-72-0487 blades installed between October 5th 2007 and March 31st 2009.

B. Concurrent Requirements

None.

C. Reason

(1) Condition

High Pressure Compressor (HPC) stage 3 rotor blades of Service Bulletin V2500-ENG-72-0487 standard with no hard coating on the clappers have been discovered during "In Service" and "Overhaul/Shop Visit" borescope inspection. This issue is traced back to a quality escape within the manufacturing process.

(2) Background

In the V2500 fleet, HPC stage 3 rotor blades of Service Bulletin V2500-ENG-72-0487 standard with no hard coating on the contact faces of the clappers have been discovered. These blades showed wear on the contact surfaces of the clappers outside acceptable limits, which required disassembly of the HPC front case and removal of the affected blades.

(3) Objective

To instruct a one time, borescope inspection procedure to be carried out "In Service" or at "Overhaul/Shop Visit" to make a check for signs of low cycle wear on the clappers of the HP compressor stage 3 rotor blades on selected engines which have Service Bulletin V2500-ENG-72-0487 incorporated during production/shop visit.

(4) Substantiation

HP compressor stage 3 rotor blades with no hard coating on the clappers have been discovered during "In Service" and at " Overhaul/Shop Visit" borescope inspection. The uncoated clappers showed wear pattern outside acceptable limits. Irregular wear of the clappers may lead to shingling of the clappers and cause the blade airfoil to vibrate with possible blade fracture, if continued in service.

D. Description

This Non-Modification Service Bulletin instructs a one time borescope inspection procedure that can be carried out "In Service" or at "Overhaul/Shop Visit".

NOTE: The Accomplishment Instruction of this Service Bulletin is divided into two INSTRUCTIONs as follows:

INSTRUCTION I - Applicable for engines "In Service".

INSTRUCTION II - Applicable for engines at "Overhaul/Shop Visit".

E. Compliance

Category 3

Accomplish a borescope inspection of the HPC stage 3 rotor blade clappers.

A borescope inspection to be carried out for engines with more than 2500 cycles since new or since the last shop visit at the earliest opportunity, but not
R later than 1500 flight cycles after the initial issue date of this Non-Modification Service Bulletin.

R NOTE: No action is required until the engine has achieved 2500 flight cycles
R since incorporation of Service Bulletin V2500-ENG-72-0487 in full or
R replacement of a HPC stage 3 rotor blade.

F. Approval

The compliance statement at 1.E. and the procedures in Section 3. of this Non-Modification Service Bulletin comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine models listed.

G. Manpower

Estimated man-hours to accomplish this Non-Modification Service Bulletin:

(1) In Service

7 hours.

(2) At Overhaul

6 hours.

H. Weight and Balance

No change or effect.

I. Electrical Load Data

The aircraft electrical load is not affected by this Non-Modification Service Bulletin.

J. Software Accomplishment Summary

Not applicable.

K. References

R (1) SIL274 - HPC rotor 3 clapper inspection, background and additional
R information.

(2) Airbus Aircraft Maintenance Manual, (AMM) TASK 72-00-00-210-012

Borescope of the High Pressure (HP) Compressor Stage 3 Rotor Clapper.

(3) Boeing Aircraft Maintenance Manual, (AMM) TASK 72-00-02-290-801

Borescope of the High Pressure (HP) Compressor.

(4) V2500 Engine Manual (1IA) TASK 72-00-00-200-002-B00

Examine the HP Compressor.

(5) V2500 Engine Manual (3IA) TASK 72-00-00-200-002

Examine the HP Compressor.

R (6) IAE Engineering Change No.: 10VR884A.

(7) ATA locator 72-00-00.

L. Other Publications Affected

None.

2. Material Information

A. Parts required to accomplish this Non-Modification Service Bulletin

None.

3. Accomplishment Instructions

INSTRUCTION I - APPLICABLE FOR ENGINES "IN SERVICE"

A. General

NOTE: In order to reduce the potential for multiple-engine in-flight shutdown, power loss, or other anomaly due to maintenance error, IAE recommends that Operators avoid performing maintenance on multiple engines installed on the same aircraft at the same time. If it is not possible to avoid maintenance on more than one engine of an aircraft at the same time, IAE recommends that additional controls are applied in order to ensure that maintenance tasks have been completed as defined.

WARNING: YOU MUST BE CAREFUL WHEN YOU DO WORK ON THE ENGINE PARTS AFTER THE ENGINE IS STOPPED. THE ENGINE PARTS CAN STAY HOT FOR ALMOST ONE HOUR.

WARNING: DO NOT TOUCH HOT PARTS WITHOUT APPLICABLE GLOVES. HOT PARTS CAN CAUSE AN INJURY. IF YOU GET AN INJURY, PUT IT IN COLD WATER FOR TEN MINUTES AND GET MEDICAL AID.

(1) Obey all the WARNINGS and CAUTIONS in the procedures that are referred to.

(2) Consumable Materials

(a) Refer to the related Manual tasks given in this instruction.

(3) Tools and Equipment

(a) Refer to the related Manual tasks given in this instruction.

B. Do a borescope inspection of the High Pressure Compressor (HPC) Stage 3 Rotor Blades

(1) Do an inspection of the HPC stage 3 rotor blade clappers for signs of irregular vertical wear only

(a) For V2500-A5 Engines:

Refer to the Airbus Aircraft Maintenance Manual, TASK 72-00-00-210-012.

Borescope of the High Pressure (HP) Compressor.

(b) For V2500-D5 Engines:

Refer to the Boeing Aircraft Maintenance Manual, TASK 72-00-02-290-801.

Borescope of the High Pressure (HP) Compressor Stage 3 Rotor Clapper.

(2) Compare the results with Figure 1.

(3) Accept and reject criteria:

(a) No evidence of wear - Accept.

(b) Irregular vertical wear as shown in Figure 1 - Reject within 100 cycles.

NOTE: Make pictures of the clapper wear and send them to IAE Tech Services, referenced to Non-Modification Service Bulletin 72-0618 and together with the Engine Serial Number and blade Cycles since new of the affected blade recorded.

C. Make sure that the work area is clean and clear of tools, equipment and other unwanted materials.

D. Record of Accomplishment

(1) A record of accomplishment is required.

INSTRUCTION II - APPLICABLE FOR ENGINES "AT OVERHAUL/SHOP VISIT"

E. General

(1) Obey all the WARNINGS and CAUTIONS in the procedures that are referred to.

(2) Consumable Materials

(a) Refer to the related Manual tasks given in this instruction.

(3) Tools and Equipment

(a) Refer to the related Manual tasks given in this instruction.

F. Get access to the High Pressure Compressor (HPC) that is installed in the center area of the engine.

G. Do a borescope inspection of the HPC stage 3 rotor blades

(1) Do an inspection of the HPC stage 3 rotor blade clappers for signs of irregular vertical wear only

(a) For V2500-A5 Engines:

Refer to the Engine Manual, Chapter 72-00-00, PB801/TASK 72-00-00-200-002-B00.

(b) For V2500-D5 Engines:

Refer to the Engine Manual, Chapter 72-00-00, PB801/TASK 72-00-00-200-002-002.

(2) Compare the results with Figure 1.

(3) Accept and reject criteria:

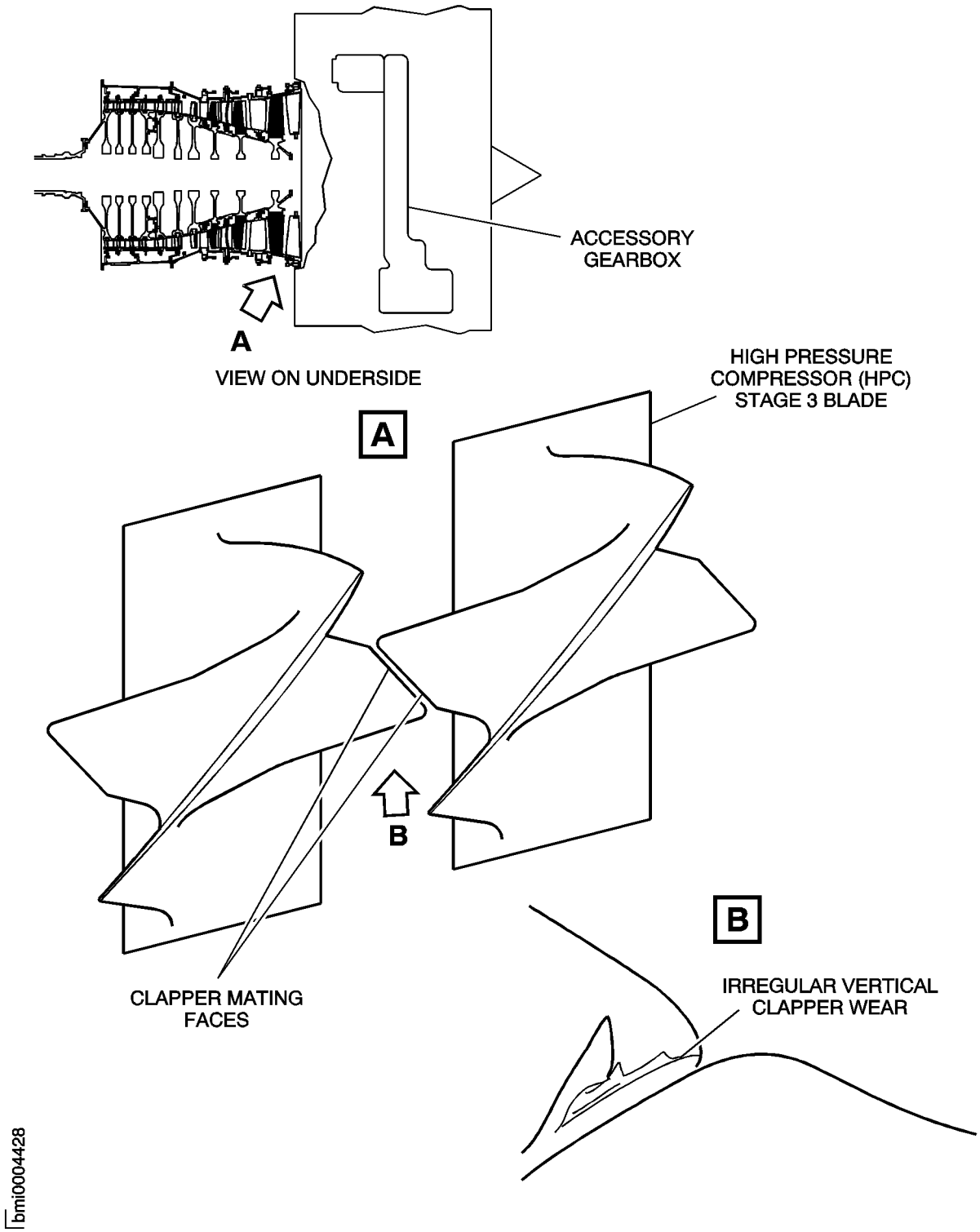
(a) No evidence of wear - Accept.

(b) Irregular vertical wear as shown in Figure 1 - Reject.

NOTE: Make pictures of the clapper wear and send them to IAE Tech Services, referenced to Non-Modification Service Bulletin 72-0618 and together with the Engine Serial Number and blade Cycles since new of the affected blade recorded.

H. Make sure that the work area is clean and clear of tools, equipment and other unwanted materials.

I. A record of accomplishment is required.



High Pressure Compressor (HPC) Stage 3 rotor Blades
Figure 1