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V2500-A1 PROPULSION SYSTEMS SERVICE BULLETIN

Printed in Great Britain

This document transmits Revision 1 to Service Bulletin EV2500-73-0146

Document History

Service Bulletin Revision Status
 Initial Issue Jun.7/99

Supplement Revision Status

Bulletin Revision 1

Remove
 Pages 1 to 3 of the
 Service Bulletin

Incorporate
 Pages 1 to 4 of the
 Service Bulletin

Reason for change
 To update the fuel pump
 categories

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 Transmittal - Page 1 of 2

CHECK THAT ALL PREVIOUS TRANSMITTALS HAVE BEEN INCORPORATED
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LIST OF EFFECTIVE PAGES

The effective pages to this Service Bulletin following incorporation of Revision 1 are as follows:

<u>Page</u>		<u>Revision Number</u>	<u>Revision Date</u>
	Bulletin		
R	1	1	Apr.25/02
R	2	1	Apr.25/02
R	3	1	Apr.25/02
R	4	1	Apr.25/02

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ENGINE - FUEL AND CONTROL - LP AND HP FUEL PUMP - RETURN OF PUMPS FOR INVESTIGATION
TO PREVENT LP DRIVE GEAR MOUNT FRACTURES - NON MODIFICATION SERVICE BULLETIN

1. Planning Information

A. Effectivity

(1) Airbus A320

V2500-A1 Engines with fuel pumps p/no. 5L0070 listed in C. (1) and C. (2) installed

(2) ATA Locator 73-12-00

B. Reason

The purpose of this Non-Modification Service Bulletin is to identify a list of fuel pumps that have a risk of potential LP drive gear mount fracture (impeller shaft shear) and instruct the unit's removal and return to Sundstrand for rework.

During incorporation of IAE Service Bulletin 73-0068, which originally addressed the LP drive gear mount fractures, incorrect clamping of the impeller on the gear together with machining misalignment resulted in bending loads which eventually sheared the gear shaft. The manufacturing problems have now been identified and corrected. Fuel pumps reworked before the manufacturing problems were corrected, have been identified by serial number. The identified fuel pumps have been split into 2 groups based on the risk of a drive gear mount fracture occurring.

The pumps that are to be returned to Sundstrand were previously identified in IAE Service Information Letter (SIL) 139. The returned pumps will be modified in accordance with IAE Service Bulletin 73-0143. The costs associated with this modification are detailed in Sundstrand Service Bulletin 5008735-73-003.

Since the first issue of this NMSB a further group of fuel pumps have been identified as being at risk. This new group increases the number of fuel pumps in the Cat 5 group to include those pumps that were manufactured before a precautionary shaft bend test was introduced into the production cycle. There have been three pumps in this new group that have experienced shaft shear. This bend test removes all shafts that may have gone on to fracture in-service. All pumps produced after this bend test was introduced are not at risk of shearing.

Several pumps from the original SB still require SB73-0146 to be incorporated. These pumps, along with the new group of pumps are highlighted in the original list with an asterisk.



C. Compliance

R There are two compliance categories based on the risks associated with the pumps.

(1) 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.

The pump serial numbers are:

R 202*, 210, 217, 222, 223, 232, 235, 253, 265, 266, 275, 281, 282, 283,
R 290, 297, 304, 317*, 327, 328, 329, 331, 344, 364, 402, 429*, 436*, 437*,
R 459, 474, 519, 520*, 521, 527, 532, 534*, 540, 559, 580, 610, 611, 615,
R 622, 632, 645, 646*

(2) Category 5

R Accomplish when the engine is disassembled and access to the pump is available at the first available opportunity after 8000 hours since modification.

The pump serial numbers are:

R 209*, 211*, 213, 218, 230, 236, 238, 246*, 248, 252*, 254, 259, 260*,
R 263*, 272, 277*, 279, 286, 288, 289*, 293*, 294*, 309, 310, 311*, 316*,
R 323, 332*, 333, 345, 347, 366, 369*, 375, 378, 379, 380, 391, 394, 397,
R 432, 455, 456*, 461, 463*, 486

R 114*, 208*, 214*, 215*, 217*, 226*, 228*, 233*, 240*, 243*, 245*, 251*,
R 255*, 258*, 262*, 266*, 267*, 271*, 274*, 276*, 280*, 281*, 282*, 292*,
R 314*, 318*, 321*, 322*, 327*, 334*, 335*, 338*, 339*, 350*, 355*, 356*,
R 359*, 362*, 368*, 369*, 372*, 377*, 382*, 383*, 384*, 387*, 393*, 398*,
R 400*, 410*, 416*, 418*, 423*, 429*, 441*, 442*, 445*, 448*, 451*, 459*,
R 461*, 464*, 465*, 466*, 468*, 470*, 476*, 489*, 502*, 503*, 507*, 508*,
R 510*, 511*, 524*, 528*, 530*, 537*, 545*, 553*, 559*, 560*, 567*, 569*,
R 570*, 573*, 577*, 578*, 590*, 591*, 592*, 594*, 596*, 598*, 599*, 601*,
R 602*, 603*, 604*, 608*, 609*, 613*, 619*, 623*, 627*, 628*, 630*, 631*,
R 635*, 640*, 642*, 643*, 644*, 646*, 647*, 649*

D. Approval

The Compliance statement and the procedures given in section 3 of this Non-Modification Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved for the engine model listed.



E. References

- (1) IAE Illustrated Parts Catalogue (IPC) Chapter/Section 73-12-41, Fig/Item 01-100
- (2) IAE Service Bulletin ENG-73-0068
Engine - Fuel and control - Introduction of an improved fuel pump
- (3) IAE Service Information Letter
SIL 139 LP/HP Fuel pump drive gear mount fractures
- (4) IAE Service Bulletin ENG-73-0143
Engine - Fuel and control - LP/HP fuel pumps - Introduction of a revised LP/HP fuel pump with reduced gearshaft bending
- (5) Sundstrand Corporation Service Bulletin 5008735-73-003
Engine - Fuel and control - Modification of LP/HP fuel pumps impeller/inducer and centre plate
- (6) Airbus AMM 73-12-41, Removal/Installation
- (7) Internal reference 99VR768

F. Action

Return the pumps listed in C. (1) and C. (2) to Sundstrand in accordance with the Compliance codes 4 and 5 respectively.

Sundstrand have made available a number of pool/exchange units to support this programme. To ensure that pool units are available, and that returned pumps are reworked and returned promptly, please contact Sundstrand or your local Sundstrand representative to co-ordinate the activity.

The Sundstrand contact details are as follows:

Sundstrand Aerospace
Sundstrand Corporation
4747 Harrison Avenue, PO Box 7002
Rockford, Illinois 61125-7002
USA

(For the attention of Manager, Business Operations, Department No. 890-6)
Telephone: 1-800-622-3199 or 815-226-6481
Telex: 25-7440
Twx: 910-631-4255
SITA: RFDSUXD
Telecopy: 815-226-2624



G. Other Publications Affected

None

2. Material Information

None

3. Accomplishment Instructions

A. Rework Instructions

Refer to Sundstrand Service Bulletin 5008735-73-003

B. Assembly Instructions

For the correct Removal/Installation procedure refer to the Airbus AMM 73-12-41,
Removal/Installation

C. Record of Accomplishment

A record of accomplishment is not required