International Aero Engines

SERVICE BULLETIN

STARTING - PNEUMATIC STARTER VALVE - INTRODUCTION OF IMPROVED SEALING OF THE VALVE DISC - CATEGORY CODE 6 - MOD.ENG-80-0004

1. Planning Information

A. Effectivity

(1) Aircraft: Airbus A320

(2) Engine: V2500-A1 Engines Prior to Serial No.V0122

B. Reason

(1) Condition and Background

Due to friction between the valve seal ring and the anti-rotation pin incorrect seating of the ring in the valve disc seal groove may occur preventing the valve from fully closing. This causes a 'valve closed' disagreement indication in th cockpit and has resulted in several starter valve removals from service.

(2) Objective

Incorporation of this Service Bulletin (Modification) is designed to maintain unit reliability.

(3) Substantiation

The changes introduced by this modification have been shown by extensive unit testing to alleviate the problem.

(4) Effects of Service Bulletin on workshop procedures:

None

(5) Supplemental Information

See Sumitomo Service Bulletin 80-2502 for any detailed re-work procedure.

C. Description

The modification contained in the Sumitomo Service Bulletin 80-2502 introduces a new seal ring which alleviates friction between the seal ring and the anti-rotation pin.

D. Approval

The part number changes shown in Paragraph 3 of this Service Bulletin have been sanctioned under a product development/control system that has been approved by the D.G.A.C. (direction Generale de l'Aviation civile - France).

E. Compliance

Category code 6.

Accomplish when the sub-assembly (ie modules, accessories, components, build groups) is dis-assembled sufficiently to afford access to the affected part and to all affected spare parts.

F. Manpower

Estimated manhours to incorporate the full intent of this bulletin.

Venue	Estimated Manhours
(1) In service	2.5 hours

G. References

(1) Internal Reference No.

EC89VR059

(2) Other references

A320 Aircraft Maintenance Manual

Sumitomo Service Bulletin 80-2502

H. Other Publications Affected

(1) 80-13-51 Vendor Component Maintenance Manual

2. Accomplishment Instructions

Not applicable

3. Material Information

New Part No. (ATA No.)	Qty	Est'd Unit Price ($)	Keyword	Old Part No. (IPC No.)	Instructions Disposition
790424-4 (80-13-41)	1	-	Valve, Starter - Pneumatic	790424-4 (01-200)	(1D)

Applicability: For each V2500 Engine to incorporate this Bulletin.

A. Kits associated with this Bulletin:

None

B. Parts affected by this Bulletin:

C. Instruction/Disposition code statement:

(1D) Old and new parts are freely and fully interchangeable. Units incorporating this modification will be identified by "L7" marked on the modification plate.

SUMITOMO PRECISION PRODUCTS CO., LTD.

SERVICE BULLETIN

A320/V2500

CIRCULATE PROMPTLY

STARTING - STARTER CONTROL VALVE - INCORPORATION OF IMPROVED VALVE DISK AND SEAL RING

1. Planning Information

A. Effectivity

Starter Control Valves PN 790424-4 Not Incorporating SPP Stock List Number	Serial Number of First Production Incorporation
L7	Not available at time of publication

B. Reason

This product improvement change reduces valve closing friction by incorporating an unpinned disk and seal ring configuration to facilitate valve closing.

C. Description

The valve disk and seal ring are replaced.

D. Compliance

Accomplish according to operator's experience or when superseded parts are no longer available, see Section 3, Material Information.

E. Approval

This Service Bulletin 80-2502 (RR SB80-0004) was technically agreed by Rolls-Royce on November 15, 1989 and IAE on February 6, 1990.

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F. Manpower

An additional 2.5 man-hours are required to perform this bulletin during component maintenance.

G. Material - Cost and Availability

The new parts required to accomplish this modification are listed in Section 3, Material Information, and are available at the price and lead times indicated. Orders for new or spare parts should be addressed to:

Hamilton Standard Product Services Incorporated
United Technologies Corporation
Attention: Supervisor, Spares Services
V2500 Distribuion Products
Mail Stop: 1-2-B13
P. O. Box 2403
Windsor Locks, CT 06096-2403

H. Tooling

None

I. Weight and Balance

None

J. Electrical Load Data

None

K. Reference

Component Maintenance Manual 80-13-51.

L. Other Publications Affected

Component Maintenance Manual 80-13-51.

2. Accomplishment Instructions

A. Modify starter control valves by modifying starter valve assembly PN 792987-2 to PN 792987-3 as follows:

(1) Modify valve disk and shaft PN 792988-2 to PN 792988-3 as follows:

(a) Replace valve disk and pin PN 776663-5 with valve disk PN 776663-8.

(b) Match new valve disk PN 776663-8 to existing valve shaft in accordance with REPAIR 4-2 of component maintenance manual.

(c) Using electrolytic etch method mark PN 792988-3 on valve disk.

(2) Replace seal ring PN 730578-19 with seal ring PN 700150-10.

(3) Assemble and test starter valve assembly in accordance with existing component maintenance instructions.

(4) Reidentify modified starter valve assembly using vibration peen or electrolytic etch method of marking as follows:

Old Part Number	New Part Number
792987-2	792987-3

B. Reidentification

Incorporation of this bulletin is identified by Sumitomo Precision Products Co. LTD. (SPP) stock list number. Reidentify modified valves PN 790424-4 by including "L7" on units identification plate. The Sumitomo Precision Products Co., Ltd. (SPP) part number is not affected by this bulletin.

3. Material Information

The basis for the following data is per starter control valve. Any prices shown herein are the net prices F.O.B. Hamilton Standard Product Services Incorporated, United Technologies Corporation, P. O. Box 2403, Windsor Locks, CT 06096-2403 in effect as of date of bulletin and are based on the condition that Hamilton Standard Product Services Incorporated's Standard Terms and Conditions of Sale pertaining to commercial contracts in effect when the order is accepted will apply. These prices are firm subject to ninety days notice of change, except that corrections, additions, or deletions shall be effective immediately and in the event prices for these parts are included in a related general parts price list, prices shown in such parts price list shall be deemed to have superseded the prices shown herein on the effective date of such price list. Quantities ordered must be in accordance with the specified Minimum Sales Quantity (MSQ) or multiples thereof. Lead times listed herein apply to all orders placed for modification parts, are based on the number of days from acceptance of order, and are subject to change without notice. Lead times for parts ordered as replenishment for inventory will be established in accordance with Hamilton Standard Product Services current product support policy. The maintenance/overhaul factors (M/OH) shown are estimated replacement percentages for the individual parts based on 100 maintenance actions (usage between overhauls) and 100 overhauls, respectively. These estimated factors are furnished for your convenience and they shall not constitute either representations or guarantees.

NOTE: The tabulation below includes code numbers in the "Instructions/Disposition" column identified as "I/D Code". These code numbers designate the following dispositions.

1. Added Part
2. Scrap Part
3. Rework and Reidentify Part
4. Use for Other Applications