


International Aero Engines
RR-DERBY

400 MAIN STREET, MAIL STOP 121-10
 EAST HARTFORD, CT 06108, USA.
 TELEPHONE: 860 565 5515
 FAX: 860 565 0600

 DATE: **Feb. 7/03**

P.O. BOX 31, DERBY
 TELEGRAMS - 'ROYCAR' DERBY
 TELEX - 37645
 TELEPHONE - DERBY 242424

V2500-D5 SERIES NACELLE SERVICE BULLETIN

Printed in Great Britain

This document transmits the Initial Issue of Service Bulletin NV2500-24-0017 and the Initial Issue of the Supplement

Bulletin Initial Issue

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	Pages 1 to 7 of the	Initial issue
	Service Bulletin	

Supplement Initial Issue

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

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Printed in Great Britain



MODIFICATION SERVICE BULLETIN – NACELLE – POWERPLANT – REPLACE AND INCREASE TORQUE OF QAD ATTACHMENT SCREWS

Printed in Great Britain

1. Planning Information

A. Effectivity

- (1) Aircraft
 - (a) MD-90
- (2) Powerplant
 - (a) All V2500-D5 EBU's and QECs.

B. Concurrent Requirements

None.

C. Reason

- (1) Problem
 - (a) The existing VSCF generator QAD adapter attach screws do not fully engage the locking threads of the inserts on the engine.
 - (b) The torque of the QAD attachment screws must be increased to improve mount stability.
- (2) Evidence
 - (a) At the maximum possible thread engagement, the VSCF generator QAD adapter attach screws are 0.176 inch (4.47 mm) from the end of the inserts on the engine and will not engage the insert locking feature.
- (3) Substantiation
 - (a) Analysis of the mount indicated that increasing the torque of the QAD adapter attachment screws will improve mount stability.
- (4) Objective
 - (a) The changes in configuration recommended in this Service Bulletin are intended to maintain reliability of the engine by installing QAD adapter attachment screws that engage the retention feature of the inserts on the engine and by increasing the torque of the attachment screws to improve mount stability.

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Not subject to the EAR per 15 C.F.R. Chapter 1, Part 734.3(b)(3).



(5) Effect of Bulletin on:

(a) Operation

Not affected

Affected

(b) Maintenance

Affected

(c) Overhaul

Affected

(d) Repair Scheme

Affected

(e) Interchangeability

Affected

(f) Fits and Clearances

Not affected

D. Description

This service bulletin provides instructions to remove the existing QAD adapter attachment screws, inspect the inserts in the engine, inspect the QAD adapter, and install new QAD adapter attachment screws with an increased torque.

E. Compliance

Category 4

Accomplish at the first visit of the nacelle or nacelle component to a maintenance base capable of compliance with the accomplishment instructions regardless of the planned maintenance action for the nacelle or nacelle component.

F. Approval

Incorporation of this Service Bulletin must be accomplished only in conjunction with Boeing Service Bulletin MD90-24-083 which has received exclusive FAA approval for MD-90 Series Aircraft.



G. Manpower

Estimated Man-hours to incorporate the full intent of this bulletin:

(1) In Service

2.0

(2) At Overhaul

1.0

NOTE: Manpower estimate is provided for planning purposes only. No labor allowance is provided under the terms of this service bulletin offering.

H. Material Price and Availability

The kit required to accomplish this service bulletin is available from the manufacturer free-of-charge.

Operators with units listed in Paragraph 1.A. should submit a no-charge purchase order for one (1) V2524017-551 kit for each EBU or QEC (2 per aircraft). The purchase order must specify this service bulletin number and only the part numbers listed herein. Operators will have one year from the issue date of this service bulletin to place an order. Upon receipt of purchase order, Rohr shall provide a delivery schedule for parts ordered. After one year, operators must purchase parts at catalog price if they wish to incorporate this service bulletin.

Direct Purchase Order to: Rohr, Inc. 850 Lagoon Drive Chula Vista, CA 91910-2098 U.S.A.

Attn: Regional Business Manager - MZ 107A (Ref Service Bulletin No. V2500-NAC-24-0017)

NOTE: Please do not submit orders for service bulletin parts via the Spec 2000 ordering system.

I. Tooling and Availability

None.

J. Industry Support Information

(1) Not applicable.

K. Weight and Balance

(1) Weight Change

None



(2) Moment Arm

No effect

(3) Datum

Engine front mount centreline (Powerplant Station PS 100)

L. Electrical Load Data

Not applicable

M. Software Accomplishment Summary

Not applicable

N. References

Publication	Chapter Section
MD-90 Aircraft Maintenance Manual	71-13-00 24-21-25 24-21-44
MD-90 Engine Manual	72-60-21
Internal Reference - IAE Engineering Change (EC) 02VN802, 02VN802A	
ATA Locator - 24-21-44	

O. Other Publications Affected

Publication	Chapter Section
MD-90 Engine Illustrated Parts Catalog	24-21-44



2. Material Information

A. Part Prices

Part Number	QTY	Estimated Unit Price US Dollars
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290-5110-1	8	
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B. Kits associated with this Service Bulletin:

(1) V2524017-551

C. Parts affected by this Service Bulletin:

Applicability: For each V2500 EBU or QEC to incorporate this Bulletin.

24-21-44

FIG ITEM	NEW PART NO	QTY	PART TITLE	MAT	OLD PART NO	INSTR DISP
01001	290-5110-505	Ref	VSCF generator installation		290-5110-503	(A) (S1)
01012	290-5110-1	8	Screw		MS51960-116	(A) (S1)

D. Instructions Disposition Codes:

(A) New part will be available February 2003.

(S1) New part can replace old part but not vice versa.

E. Tooling - Price and Availability:

None.

F. Materials Required to do this Service Bulletin:

SPEC	MATERIAL
MIL-L-23699	Oil (alt to MIL-L-7808)
MIL-L-7808	Oil (alt to MIL-L-23699)
	Isopropyl Alcohol
	Metal Marking Pen (broad-tipped)
	Lint-Free Cloth



3. Accomplishment Instructions

- A. Open the lower fan cowl doors. Refer to Aircraft Maintenance Manual TASK 71-13-00-010-801.
- B. Remove the variable speed constant frequency generator. Refer to the Aircraft Maintenance Manual TASK 24-21-25-020-801.
- C. Remove the variable speed constant frequency generator quick attach detach (QAD). Refer to the Aircraft Maintenance Manual TASK 24-21-44-020-801.
 - (1) Remove the QAD attachment screws one at a time. Make a record of from which hole each screw is removed.
 - (2) Visually inspect each screw for damage after you remove it.
 - (3) Visually inspect all the QAD attach inserts in the engine for damage. Give particular attention to those inserts from which you removed damaged screws.
 - (a) Replace any damaged inserts. Refer to the MD-90 Engine Manual TASK 72-60-21-300-056, Repair VRS5441.
 - (4) Discard the QAD attachment screws.
- D. Do a torque check of the inserts with a new 290-5110-1 QAD attachment screw.
 - (1) Installation of the screw should be smooth until it reaches the locking feature.
 - (2) Torque should be 20 - 40 in-lb. after the screw reaches the insert locking feature.
 - (a) Replace any insert that fails the torque test. Refer to the MD-90 Engine Manual TASK 72-60-21-300-056, Repair VRS5441.
- E. Visually inspect the QAD adapter clamp, the mating surfaces of the QAD plate, and the generator flange mating areas for bends, indentations, or other damage.
 - (1) Clean the QAD clamp, the mating surfaces of the QAD plate, and the generator flange with a clean lint-free cloth and isopropyl alcohol.
 - (2) Visually inspect the QAD adapter clamp, the mating surfaces of the QAD plate, and the generator flange mating areas for bends, indentations, or other damage.
 - (3) Replace any damaged parts.



F. Install the variable speed constant frequency generator quick attach detach (QAD).

- (1) Clean the engine gearbox and QAD adapter pad with isopropyl alcohol.
- (2) Apply oil to the inner surfaces of the QAD adapter clamp and to the threads of the clamp bolt.
- (3) Apply oil to the threads and under the head of the 290-5110-1 screws.
- (4) Install the variable speed constant frequency generator quick attach detach (QAD) with the 290-5110-1 screws. Refer to the Aircraft Maintenance Manual TASK 24-21-44-420-801.

CAUTION: THE TORQUE VALUE SPECIFIED IN PARAGRAPH H.(5) BELOW IS DIFFERENT FROM THE ONE THAT IS CURRENTLY PUBLISHED IN THE AIRCRAFT MAINTENANCE MANUAL. USE THE TORQUE VALUE SPECIFIED IN PARAGRAPH H.(5) BELOW AND NOT THE ONE IN THE AIRCRAFT MAINTENANCE MANUAL.

- (5) Incrementally Torque the 290-5110-1 screws in a star pattern and to a Final torque of 235 - 255 in-lbs (26.55 - 28.81 nm).
 - (6) Clean the mating surfaces of the QAD adapter plate with a clean lint-free cloth and isopropyl alcohol.
 - (7) Make a mark with a broad-tipped metal marking pen across the heads of the 290-5110-1 screws and onto the QAD adapter plate.
- G. Install the variable speed constant frequency generator. Refer to the Aircraft Maintenance Manual TASK 24-21-25-420-801. Use new packings (lubricated with oil) on the VSCF generator input spline shaft and on the pilot flange.
- H. Close the lower fan cowl doors. Refer to Aircraft Maintenance Manual TASK 71-13-00-410-801.

I. Recording Instructions

- (1) A record of accomplishment is required. Write in the applicable records that Service Bulletin V2500-NAC-24-0017 has been done.



MODIFICATION SERVICE BULLETIN - NACELLE - POWERPLANT - REPLACE AND INCREASE TORQUE OF
QAD ATTACHMENT SCREWS

SUPPLEMENT - PRICES AND AVAILABILITY

The prices if 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 catalogue for current prices.

1. Modification Kit

V2524017-551 (see Section 1.H. Material Price and Availability)

2. New Production Parts

Part No.	Desc.	Unit Price US Dollars
290-5110-1	Screw	(see Section 1.H. Material Price and Availability)

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