

ALERT



COMMERCIAL ENGINE BULLETIN

Allison Engine Company

ENGINE - FUEL AND AIR SYSTEM - Pc SCROLL TO Pc FILTER TUBE ASSY - INSPECTION

1. PLANNING INFORMATION:

A. Effectivity:

All Pc Scroll to Pc Filter Tube Assy's, Pc Scroll Fittings, and Pc Filter Fittings installed in 250 Series Engines. Inspect and comply as defined herein.

B. Reason:

A recent incident involving the failure of a Pc tube resulted in an unscheduled aircraft landing. The Pc tube between the compressor scroll and the Pc filter failed at the flared end. The tube was found to have cracked 360° around the flared filter attachment end. Since this Pc tube is removed to perform compressor washing (but not compressor rinsing), it is susceptible to a higher failure rate than other similar tubes due to handling. As a result, inspection of these tubes is to be accomplished as defined in the "Accomplishment Instructions" herein.

C. Description:

The Pc Tube between the Compressor Scroll and the Pc Filter, the Pc Filter flared fittings, and the Pc Scroll fitting are inspected for cracks using a 10x magnifying glass.

D. Compliance:

1. Inspection using 10x magnifying glass is to be accomplished within the next 100 hours of operation after receipt of this bulletin, but no later than July 31, 1986.
2. Inspect when the tube is removed for compressor washing, also when the PC filter is cleaned.

NOTE: The tube should not be removed when performing the daily water rinse.

June 23, 1986
Revision No. 3
April 15, 1992

250-C18 Series (T63-A-700)
250-C20 Series (T63-A-720)
250-C28 Series
250-C30 Series
250-B15 Series
250-B17 Series

CEB A-247
CEB A-1234
CEB A-73-2030
CEB A-73-3032
TP CEB A-118
TP CEB A-1194
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1. PLANNING INFORMATION: (Continued)

E. Approval: Technical Aspects are FAA Approved.

F. Material Availability:

When defective parts are found by inspection, they are to be scrapped locally and replaced by new parts as applicable in the appropriate Illustrated Parts Catalog.

G. Tooling: None.

H. Weight and Balance: None.

I. Electrical Load Data: Not affected.

J. Other Publications Affected:

- (1) 5W2 Operation and Maintenance Manual 250-C18
- (2) 5W4 Illustrated Parts Catalog 250-C18
- (3) 10W2 Operation and Maintenance Manual 250-C20
- (4) 10W25 Operation and Maintenance Manual 250-C20S
- (5) 10W4 Illustrated Parts Catalog 250-C20
- (6) 6W2 Operation and Maintenance Manual 250-B15
- (7) 6W4 Illustrated Parts Catalog 250-B15
- (8) 11W2 Operation and Maintenance Manual 250-B17
- (9) 11W4 Illustrated Parts Catalog 250-B17
- (10) 16W2 Operation and Maintenance Manual 250-C28
- (11) 16W4 Illustrated Parts Catalog 250-C28
- (12) 14W2 Operation and Maintenance Manual 250-C30
- (13) 14W2PM Operation and Maintenance Manual 250-C30P, 250-C30M
- (14) 14W4 Illustrated Parts Catalog 250-C30

K. Prerequisites: None.

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2. ACCOMPLISHMENT INSTRUCTIONS:

NOTE: Manuals listed in Section 1.J. herein provide applicable disassembly, cleaning, inspection, repair, reassembly, and testing instructions, and are to be used when required during the accomplishment of this bulletin.

A. Pc Scroll to Pc Filter Tube Assy's are to be inspected in accordance with the instructions herein:

- (1) Remove the Pc Scroll to Pc Filter Tube and inspect for cracks using a 10x magnifying glass. Pay particular attention to the flared ends of the tube for cracks, and to the areas beneath the floating ferrules for excessive fretting damage. Tubes found to contain cracks and/or fretting damage are to be replaced by new parts of the same part number as removed.

NOTE: Excessive fretting is present when the ferrule has chafed the tube sufficiently to wear a step in the tube that can be felt with a thumbnail or other inspection aid.

B. The Pc Fitting (I.E. elbow) on the Scroll and Flare Fittings on the Pc Filter are to be inspected as follows:

- (1) Using a 10x magnifying glass, inspect the condition of the Pc filter end fittings for distress/cracks, and the elbow in the scroll for distress/cracks/proper alignment. No cracks are permissible in either the Pc Filter or the compressor scroll elbow.

NOTE: All maintenance personnel should be aware of and comply with the recommendations provided in the Operations and Maintenance Manual concerning the removal, installation, and torque procedures for rigid tubing prior to performing any maintenance action on the Pc system. Proper torque of the Pc tube coupling nuts is 80-120 lb. in. Tightening above this range is to be avoided as tube damage may occur.

WARNING: PROPER TIGHTENING OF ENGINE TUBING CONNECTION IS CRITICAL TO FLIGHT SAFETY. CORRECT TORQUE VALUES MUST BE USED AT ALL TIMES. EXCESSIVE TORQUE ON PNEUMATIC SENSING SYSTEM CONNECTIONS RESULTS IN CRACKING OF THE FLARE OR ADJACENT TUBE AREA IN CONTACT WITH THE FERRULE. THIS PRODUCES AN AIR LEAK WHICH CAN CAUSE FLAMEOUT, POWER LOSS, OR OVERSPEED.

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2. ACCOMPLISHMENT INSTRUCTIONS: (Continued)

C. Record compliance in the Engine Log Book, Compressor Assembly (blue pages), Inspection-Maintenance-Overhaul Record Part IV, as applicable with the following bulletins:

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3. MATERIAL INFORMATION:

A. Instructions/Disposition Notes:

- (1) Inspect removed parts as outlined in the Accomplishment Instructions herein. Parts found to be free of cracks/defects and otherwise serviceable may be reinstalled. Parts found to contain cracks/defects are to be scrapped locally and replaced by new parts as applicable in the appropriate parts catalog.

CUSTOMER SUPPORT

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