



SERVICE BULLETIN

TO : All Civil Rotorcraft Owner/Operators, see effectivity
FROM : FDC/aerofilter Engineering
SB NUMBER : SB.FDC.ALL.0005
ORIGINAL SB NO. : SB FDC-ALL-A001
CATEGORY : Mandatory Service Bulletin
EFFECTIVITY : Inlet Barrier Filter systems installed on the following aircraft in accordance with the following FDC/aerofilter STCs:
Eurocopter - AS350D, D1, BA – STC SR01049SE
AS350B, B1, B2, B3 – STC SR00811SE
EC120B – STC SR01191SE
EC130B4 – STC SR1373SE
Bell Helicopter Textron - 206L, L1, L3, L4, 407 – STC SR00180SE.
MD Helicopters - 369HE, 369HM, 369HS, 369D, 369E, 369FF – STC SR00877SE

DATE : July 18, 2005

FILTER ELEMENT D-SEAL INSPECTION

1.0 BACKGROUND

This Service Bulletin addresses a possible unsafe condition by performing an inspection process of the element seal(s). Further, this Service Bulletin will allow for a repair procedure to ensure the security of the element seal(s).

A recent investigation revealed un-bonding of the aft filter element plenum seal attached to the upper plenum housing on a Eurocopter EC130B4. Total time since new on the affected unit was approx. 1300 hours time in service. It is not clear what caused the seal to de-bond. If the element seals detach from the duct, they may be ingested into the engine causing damage and possible engine failure.

2.0 COMPLIANCE

Mandatory Service Bulletin

3.0 COMPLIANCE TIME

Installation Instructions, Section 9, Part A –
INSPECTION OF SEALS – Before Next Flight

Installation Instructions, Section 9, Part B –
REPAIR PROCEDURE – As Required

4.0 SPARES KIT AVAILABILITY

Seal material available from FDC/aerofilter.

Adhesives/Sealants available procure locally.

5.0 INSTALLATION TIME

Inspection/removal: Est. 1 man-hour.

Repair: Est. 1.5 man-hours.

Disposition of Removed Parts: To be re-used unless further directed in
repair procedure.

6.0 WEIGHT & BALANCE

Not affected

7.0 FLIGHT MANUAL REVISION

None

8.0 DOCUMENTS

None

9.0 INSTALLATION INSTRUCTIONS

Refer to the Rotorcraft Manufacturers' applicable Maintenance Manual for
the basic helicopter, and Instructions for Continued Airworthiness for the
specific model & type helicopter fitted with applicable STC.

NOTE: If REPAIR PROCEDURE (Part B) cannot be accomplished due to seal damage and/or lack of materials at the time of the seal inspection as noted in this Service Bulletin, FDC recommends removing the suspect seal(s) and continue with REPAIR PROCEDURE (Part B) at the next maintenance opportunity. It is permissible to operate the aircraft without the filter element D seal(s) until the next maintenance opportunity.

A. INSPECTION OF SEALS

- (1) Remove the filter element(s).
- (2) Cover the engine to prevent debris from falling into engine inlet.
- (3) Carefully inspect the D-seals (refer to Figure 1) for adhesion to mating surfaces, check for cracks, tears, or abnormal wear.
- (4) Note any areas of de-bonding, cracking or wear.
- (5) If de-bonding or looseness of seals is evident, refer to REPAIR PROCEDURE (Part B).
- (6) Job close-up.

B. REPAIR PROCEDURE

- (1) Carefully peel the suspect seal(s) from the plenum housing.
- (2) Remove any debris/residue from the seal and/or mating surfaces.
- (3) Clean affected area of plenum housing and seal with Acetone Federal Specification number O-A-51G) or Methyl Ethyl Ketone (MEK) (Federal Specification TT-M-261B).
- (4) Scuff defective mating surfaces of plenum housing with 200 grit aluminum oxide sand paper, taking care to ensure debris from cleaning and sanding do not enter the engine compressor inlet. Use vacuum or compressed air to remove sanding debris from surface.
- (5) Apply Pro-Seal P/N PR1440-B2 (AMS-S-8802) or High Temperature RTV adhesive P/N 103, 108 or 832 (MIL-A-46106) to prepared plenum housing surface and element seal.

- (6) Re-bond seal to plenum housing taking care to ensure a positive mating of the seal to plenum housing is accomplished.
- (7) Allow sealant to cure to adhesive manufacturer's requirements.
- (8) Job close-up.

C. RETURN TO SERVICE

- (1) Reinstall all removed items including filter element(s).
- (2) Ensure positive latching of all affected fasteners.

D. LOG BOOK ENTRY

- (1) Upon completion of any part of this Service Bulletin, make an appropriate maintenance entry in the log book similar to "Accomplished FDC Service Bulletin No. ALL.0005, Part XX per the text of the SB, on (date) by (name), number/stamp."

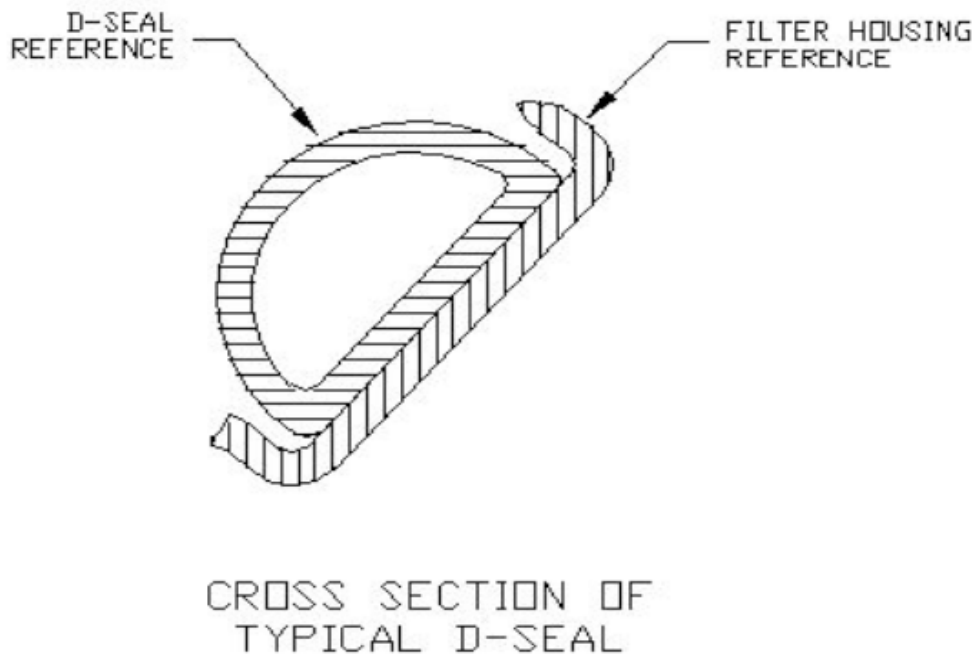


Figure 1 – D-Seal (Reference only)

FDC Engineering

R. E. Goulden

Russell Goulden
Vice President



SERVICE BULLETIN COMPLIANCE NOTIFICATION

SB.FDC.ALL.0005

TO : FDC Engineering
FROM :
COMPANY :
AIRCRAFT : S/N(s)
PHONE :
FAX :
EMAIL :
DATE :

I have fully complied with FDC SB.FDC.ALL.0005

NAME :
POSITION :
A&P NO :
DATE :

SIGNED :

MAIL TO : FDC Engineering
Filtration Development Company LLC
8 Digital Drive, Suite 104.
Novato, California 94949

OR EMAIL : SBFDCALL0005@fdcaerofilter.com

OR FAX : 415-884-0505