



SERVICE BULLETIN

TO : EC130 Helicopter Owners/Operators
FROM : FDC/aerofilter Engineering
SB NUMBER : SB.FDC.EC130.0006
ORIGINAL SB NO. : SB EC130-002
CATEGORY : Mandatory Service Bulletin
EFFECTIVITY : EC130 equipped with STC SR01373SE
DATE : July 29, 2005

SEAL MODIFICATION KIT INSTALLATION

1.0 BACKGROUND

This Service Bulletin provides a permanent modification to the upper housing aft section for better D-seal installation and retention.

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.

Engineering data contained in this Service Bulletin is FAA approved.

2.0 COMPLIANCE

Mandatory Service Bulletin

3.0 COMPLIANCE TIME

Installation Instructions, Section 9, Paragraph A –
Next Maintenance Opportunity, not to exceed 300 hrs.

4.0 SPARES KIT AVAILABILITY

Modification kit P/N 1130KT1-1 available from FDC/aerofilter.
To procure kits, contact FDC Customer Support @ 415-884-0555 or email support@fdcaerofilter.com.

5.0 INSTALLATION TIME

Installation procedure: Est. 8 man-hours.

6.0 WEIGHT & BALANCE

Not affected

7.0 FLIGHT MANUAL REVISION

None

8.0 DOCUMENTS

None

9.0 INSTALLATION INSTRUCTIONS

Refer to the applicable Maintenance Manual and Kit Drawing # 1130KT1. The following instructions are applicable to all Eurocopter EC130 aircraft with STC SR01373SE installed with Engine Inlet Barrier Filter Kit S/N's 0001 thru 0040.

A. MODIFICATION PROCEDURES:

- (1) Remove engine cowling.
- (2) Cover the engine to prevent debris from falling into engine inlet.
- (3) Remove filter element.
- (4) Remove alternate air inlet screens and closures (qty. 2 each). Retain all hardware.
- (5) Remove hardware attaching upper housing to cowling. Retain all hardware.
- (6) Remove lower housing from upper housing by removing the 13 each 8/32" screws. Retain all hardware.

NOTE: Verify that the aft seal has been removed per Service Bulletin SB.FDC.EC130.0004.

- (7) Clean bonding area surfaces of aft D-seal groove, referenced in Figure 1, with Acetone (Federal Specification number O-A-51G) or Methyl Ethyl Ketone (MEK) (Federal Specification TT-M-261B).

- (8) Scuff bonding area surfaces of aft D-seal groove and shim P/N 1130KP1-1, referenced in Figure 1, with 200 grit aluminum oxide sand paper. Use vacuum or compressed air to remove sanding debris from surfaces.
- (9) Bond shim P/N 1130KP1-1, centered to the aft D-seal groove, using Hysol adhesive P/N EA 934NA or 3M adhesive P/N DP420. Refer to Figure 3.
- (10) Allow adhesive to cure to adhesive manufacturer's requirements.
- (11) Locate holes from shim P/N 1130KP1-1 and transfer drill (DIA. 0.128) thru upper housing (7 places).
- (12) Clean bonding area surfaces of SHIM P/N 1130KP1-1, support P/N 1130KP2-1 and applicable area of upper housing, with Acetone (Federal Specification number O-A-51G) or Methyl Ethyl Ketone (MEK) (Federal Specification TTM-261B). Refer to Figure 3.
- (13) Scuff bonding area surfaces of shim P/N 1130KP1-1, support P/N 1130KP2-1 and applicable area of upper housing, with 200 grit aluminum oxide sand paper. Use vacuum or compressed air to remove sanding debris from surface. Refer to Figure 3.

NOTE: Locate support P/N 1130KP2-1, where support P/N 1130KP2-1 surface "A" is .125 inches spaced from upper housing surface "B" before the Hysol adhesive P/N EA 934NA or 3M adhesive P/N DP420 is fully cured in step 14. Refer to figure 2.

- (14) Bond support P/N 1130KP2-1 to shim P/N 1130KP1-1 and upper housing using Hysol adhesive P/N EA 934NA or 3M adhesive P/N DP420. Ensure that all voids between the support P/N 1130KP2-1 and the upper housing are filled with Hysol adhesive P/N EA 934NA or 3M adhesive P/N DP420.
- (15) Allow adhesive to cure to adhesive manufacturer's requirements.
- (16) Locate holes from upper housing and shim P/N 1130KP1-1 and transfer drill (DIA. 0.128) thru support P/N 1130KP2-1. Countersink support P/N 1130KP2-1 holes 100° DIA. 0.222 inches.
- (17) Install rivets P/N MS20426A4-7 (optional P/N NAS1921B04S05) and washers P/N NAS1149DN432K through support P/N

1130KP2-1, shim P/N 1130KP1-1 and upper plenum housing.
Refer to Figure 3.

- (18) Clean bonding area surfaces of support P/N 1130KP2-1 and D-seal with Acetone (Federal Specification number O-A-51G) or Methyl Ethyl Ketone (MEK) (Federal Specification TT-M-261B). Refer to Figure 3.
- (19) Scuff bonding area surfaces of support P/N 1130KP2-1, with 200 grit aluminum oxide sand paper. Use vacuum or compressed air to remove sanding debris from surface. Refer to Figure 3.
- (20) Apply Pro-Seal P/N PR1440-B2 (AMS-S-8802) or High Temperature RTV General Electric product adhesive P/N 103, 108 (MIL-A-46106) or Dow Corning P/N 832 Multi-Surface Adhesive Sealant to prepared support P/N 1130KP2-1 surface and D-seal. Refer to Figure 3 for D-seal location.
- (21) Bond D-seal to support P/N 1130KP2-1 taking care to ensure a positive mating of the D-seal to support P/N 1130KP2-1 is accomplished. Refer to Figure 3 for D-seal location.
- (22) Allow adhesive to cure to adhesive manufacturer's requirements.
- (23) Reinstall the modified upper housing per the applicable Installation Instructions Manual (1130-INST-1).
- (24) Job close-up.

B. RETURN TO SERVICE

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

C. LOG BOOK ENTRY

- (1) Upon completion of this Service Bulletin, make an appropriate maintenance entry in the log book similar to:
"Accomplished FDC Service Bulletin No. EC130.0006.
Complied with on (date) by (name), number/stamp."

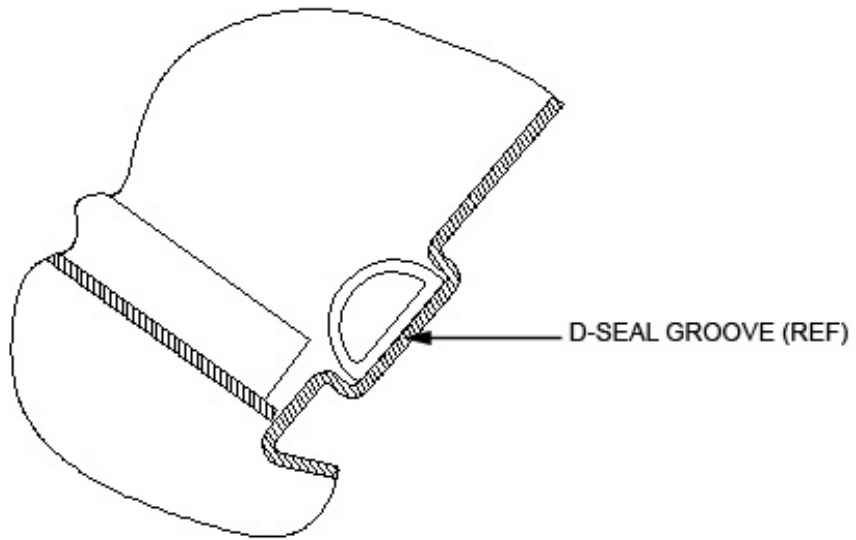
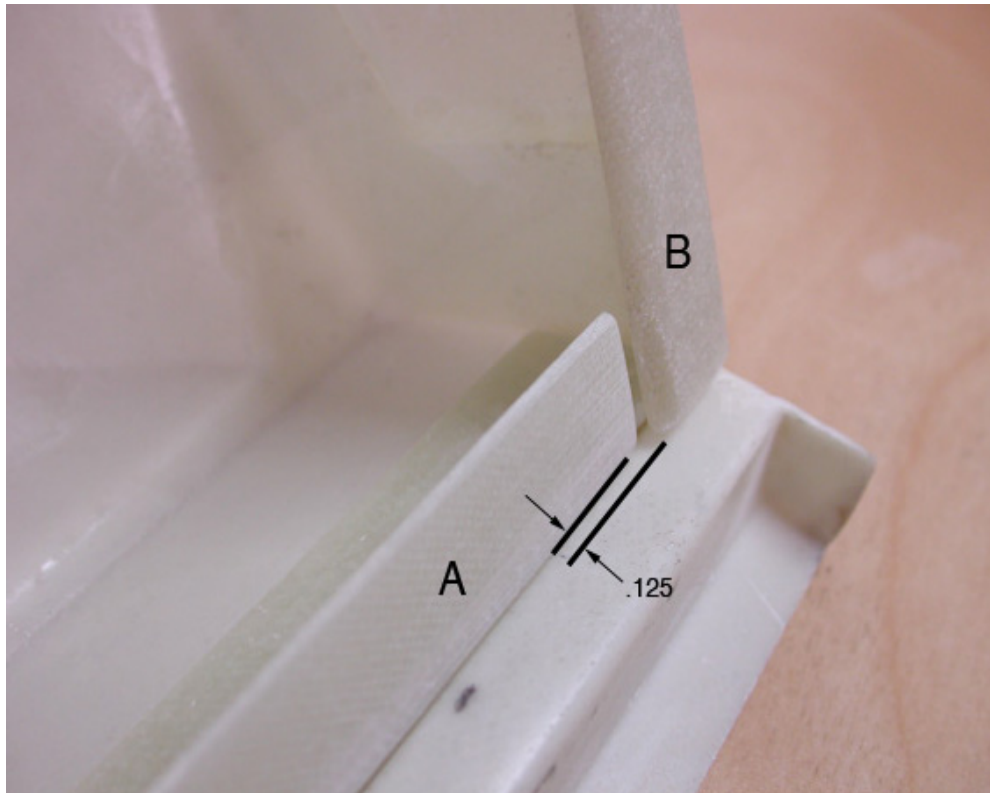


Figure 1 – D-Seal Groove (Reference)



**Figure 2 – Support P/N 1130KP2-1 Location (Reference)
(View looking aft)**

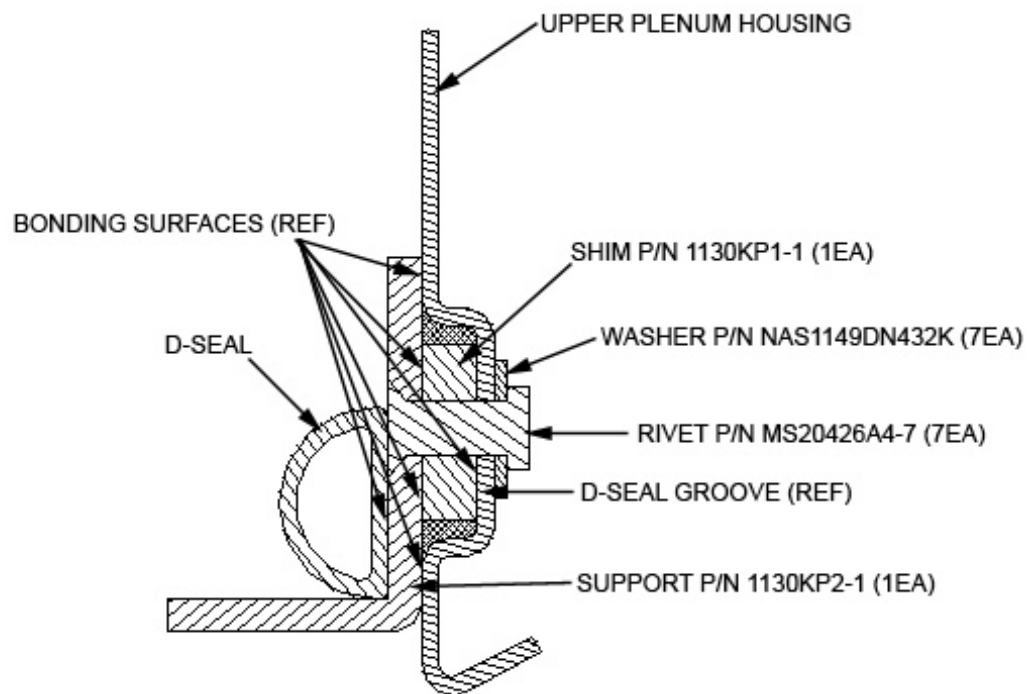


Figure 3 – Assembly Reference

FDC Engineering
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Russell Goulden
Vice President



SERVICE BULLETIN COMPLIANCE NOTIFICATION

SB.FDC.EC130.0006

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

I have fully complied with FDC SB.FDC.EC130.0006

NAME :
POSITION :
A&P NO :
DATE :

SIGNED :

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

OR EMAIL : SBFDCEC1300006@fdcaerofilter.com

OR FAX : 415-884-0505