

## Oil Filter Kit AFC-K012

### Applicability:

Hiller Helicopter Model UH12A, 12B, 12C, 12D, 12E, & 12L4  
with Franklin Engines 6V4-200, 6V-335, 6VS-335 &  
Lycoming Engines VO435-A1C, VO540-B1A, VO540-C2A, TVIO540-A2A

First Release 11/01/95

Ammended 01/08/2000

### Parts List No. AFC-K012-PL

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	OFB-11	Oil Filter Base, -10 Port	(1)
02.	OFS-10	Oil Filter Stud	(1)
03.	AFC-600	Oil Filter, Long, or Equivalent [Champion CH48109]	(1)
04a.	MS20823-10D	Elbow, 45°	(1)
04b.	MS20822-10D	Elbow, 90°	(1)
05.	DBL-12	Bracket, Support	(1)
06.	OFM-15	Oil Filter Mount, 105°	(1)
07.	AN4H-4A	Bolt, Drilled Head	(4)
08.	AN960-416	Flat Washer	(12)
09.	AN4-5A	Bolt	(4)
10.	MS20365-428A	Locknut	(4)
11.	OFM-17	Oil Filter Mount Plate, Hiller	(1)
12.	AN3-4A	Bolt	(4)
13.	AN960-10	Flat Washer	(8)
14.	MS20365-1032A	Locknut	(4)
15.	AN3-15A	Bolt, Standoff	(4)
16.	TUB-0100	Standoff, 1"	(4)
17.	MS21919WDG-14	Adel Clamp	(4)
18.	MS21919WDG-18	Adel Clamp	(2)
19.	MS21919WDG-20	Adel Clamp	(2)
20a.	13000210-0240	Teflon Hose Assy S/90°, 24" Long, UH12D&E	(1)
20b.	13000210-0440	Teflon Hose Assy S/90°, 44" Long, UH12E	(1)
20c.	13000210-0600	Teflon Hose Assy S/90°, 60" Long, UH12D	(1)
21.	Loctite	Loctite® 567 Teflon Thread Sealant	(1)
22.	AFC-K012-II	Installation Instructions	(1)
23.	AFC-K012-MI	Instructions for Continued Airworthiness	(1)
24.	AFC-K012-PL	Parts List	(1)

## Installation Instructions No. AFC-K012-A-II

**Applicability:** Hiller Helicopter Model UH12D &12E  
with Lycoming Engines

**First Release 11/01/95**

VO-435-A1C, VO-540-B1A, VO-540-C2A, TVIO-540-A2A

**Ammended 01/08/2000**

*Note A: Some hoses or wires may have to be rerouted so the oil filter assembly will fit into position. Reference and material per AC 43.13-1B & 2A.*

*Note B: The internal oil screen, P/N 71589, 72785, or any superseeding part number. is not removed for this installation.*

01. Remove -10 oil return line from bottom of engine to oil cooler.
02. Attach 105° oil filter mount plate (06) and support bracket (05) to oil filter base (01) using 4ea. bolts (07) & washers (08) and secure with .032 MS20995-C safety wire.
03. Install above assembly onto oil filter mount plate (11) using 4ea. bolts (09), washers (08) and locknuts (10). with angles of mounting plate facing forward and toward the engine.
04. Attach complete assembly to engine mount frame on engine side of frame (inside) using 2ea. clamps (18) & (19) and 4ea. bolts (12), washers (13), and locknuts (14). When properly installed, the bottom of oil filter mount plate (11) will be approximately 11" above lower mount attach bolt.
05. Reposition engine electrical harness on mount leg as necessary to assure proper clearance.  
  
**\*\*\*\*\* SEE WARNING (A) BELOW \*\*\*\*\***
06. Install 45° fitting (04a) into inlet **Port "B"** of the oil filter base (01) so that it faces approximately 45 degree angle downward and aft.
07. Install 90° fitting (04b) into outlet **Port "A"** of the oil filter base and position fitting down towards engine deck  
  
**\*\*\*\*\* SEE WARNING (B) BELOW \*\*\*\*\***
08. Install oil line (20a) connecting the 90° end of oil line (20a) to the outlet fitting on bottom of engine so hose points aft and loops upwards towards the 45° fitting (04a) previously installed into **Port "B"** of the oil filter base (01). Tighten line at both ends while adjusting position so that hose does not contact airframe.
09. Install oil line (20b) or (20c) connecting the 90° end of oil line to the oil cooler and route line under engine to **Port "A"** of the oil filter base (01). Secure oil line to engine deck with 4ea. clamps (17) as shown in installation drawing AFC-D00?? using bolts (15), 1" standoffs (16), & washers (13) as necessary to provide proper engagement of threads into nutplates. Standoffs will be used to prevent tail rotor cables from rubbing against installed oil line. Install clamps and standoffs at the following locations:  
(a) one clamp (17) at left side of fuel tank access plate, fourth bolt from aft end.  
(b) one clamp (17) at right side of fuel tank access plate, fourth bolt from the engine.  
(c) one clamp (17) at right tail rotor cable pulley bracket outboard side.  
(d) one clamp (17) at electrical junction box inboard aft attach bracket.
10. Install oil filter (03) torque per instructions on oil filter, and secure with .032 MS20995-C safety wire.
11. Run engine and check for leaks.
12. Determine weight and balance, initiate a 337 form, and update the equipment list.

**\*\* WARNING (A) \*\***

**USE LOCTITE® 567 PST TEFLON THREAD SEALANT BEFORE INSTALLATION OF FITTINGS. DO NOT ASSEMBLE FITTINGS INTO OIL FILTER BASE WITHOUT SEALANT OTHERWISE GALLING OF MATERIAL WILL RESULT.**

**\*\* WARNING (B) \*\***

**NO ROUTING OF FLAMMABLE FLUID LINES ABOVE EXHAUST SYSTEM, UNLESS FIRESLEEVED. INSTALLER IS RESPONSIBLE FOR INTER-RELATIONSHIP BETWEEN THIS AND OTHER ENGINE CHANGES (INCL. ACCESSORIES)**

## Installation Instructions No. AFC-K012-B-II

**Applicability:** Hiller Helicopter Model UH12A, 12B & 12C with  
Franklin Engines 6V4-200, 6V-335,& 6VS-335

**First Release 11/01/95**

**Ammended 01/08/2000**

*Note A: Some hoses or wires may have to be rerouted so the oil filter assembly will fit into position.  
Reference and material per AC 43.13-1B & 2A.*

*Note B: The internal oil screen, P/N 71589, 72785, or any superseeding part number: is not removed for this installation.*

01. Remove -10 oil return line from bottom of engine to oil cooler.
02. Attach 105° oil filter mount plate (06) and support bracket (05) to oil filter base (01) using 4ea. bolts (07) & washers (08) and secure with .032 MS20995-C safety wire.
03. Install above assembly onto oil filter mount plate (11) using 4ea. bolts (09), washers (08) and locknuts (10). with angles of mounting plate facing forward and toward the engine.
04. Attach complete assembly to engine mount frame on engine side of frame (inside) using 2ea. clamps (18) & (19) and 4ea. bolts (12), washers (13), and locknuts (14). When properly installed, the bottom of oil filter mount plate (11) will be approximately 11" above lower mount attach bolt.
05. Reposition engine electrical harness on mount leg as necessary to assure proper clearance.  
  
**\*\*\*\*\* SEE WARNING (A) BELOW \*\*\*\*\***
06. Install 45° fitting (04a) into inlet **Port "B"** of the oil filter base (01) so that it faces approximately 45 degree angle downward and aft.
07. Install 90° fitting (04b) into outlet **Port "A"** of the oil filter base and position fitting down towards engine deck  
  
**\*\*\*\*\* SEE WARNING (B) BELOW \*\*\*\*\***
08. Install oil line (20a) connecting the 90° end of oil line (20a) to the outlet fitting on bottom of engine so hose points aft and loops upwards towards the 45° fitting (04a) previously installed into **Port "B"** of the oil filter base (01). Tighten line at both ends while adjusting position so that hose does not contact airframe.
09. Install oil line (20b) or (20c) connecting the 90° end of oil line to the oil cooler and route line under engine to **Port "A"** of the oil filter base (01). Secure oil line to engine deck with 4ea. clamps (17) as shown in installation drawing AFC-D00?? using bolts (15), 1" standoffs (16), & washers (13) as necessary to provide proper engagement of threads into nutplates. Standoffs will be used to prevent tail rotor cables from rubbing against installed oil line. Install clamps and standoffs at the following locations:
  - (a) one clamp (17) at left side of fuel tank access plate, fourth bolt from aft end.
  - (b) one clamp (17) at right side of fuel tank access plate, fourth bolt from the engine.
  - (c) one clamp (17) at right tail rotor cable pulley bracket outboard side.
  - (d) one clamp (17) at electrical junction box inboard aft attach bracket.
10. Install oil filter (03) torque per instructions on oil filter, and secure with .032 MS20995-C safety wire.
11. Run engine and check for leaks.
12. Determine weight and balance, initiate a 337 form, and update the equipment list.

**\*\* WARNING (A) \*\***

**USE LOCTITE® 567 PST TEFLON THREAD SEALANT BEFORE INSTALLATION OF FITTINGS. DO NOT ASSEMBLE FITTINGS INTO OIL FILTER BASE WITHOUT SEALANT OTHERWISE GALLING OF MATERIAL WILL RESULT.**

**\*\* WARNING (B) \*\***

**NO ROUTING OF FLAMMABLE FLUID LINES ABOVE EXHAUST SYSTEM, UNLESS FIRESLEEVED. INSTALLER IS RESPONSIBLE FOR INTER-RELATIONSHIP BETWEEN THIS AND OTHER ENGINE CHANGES (INCL. ACCESSORIES)**

# INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Form AFC-K012-ICA Revised 10/01/00

A/C Make : Hiller Model: UH12 Series \_\_\_\_\_ S/N: \_\_\_\_\_ Reg#: \_\_\_\_\_

Revision: Date: 01/08/2000

This sixteen item checklist are Instructions for Continued Airworthiness (ICA), to comply with FAA Handbook Bulletin for Airworthiness (HBAW-98-18 Dated October 7, 1998), are applicable to the aircraft above when the following equipment is installed:

**SYSTEM: Airwolf Remote Mount Oil Filter System.**

Airwolf Filter Corp  
15369 Madison Rd  
Middlefield, OH 44062



ITEM	CHECKLIST INFORMATION
1.	<p><b>Introduction:</b> This section briefly describes the aircraft, engine, propeller, or component that has been altered. Include and other information on the content, scope, purpose, arrangement, applicability, definitions, abbreviations, precautions, units of measurement, referenced publications, and distribution of the ICA as applicable.</p> <p><b>Comment:</b> <u>Hiller UH12 Helicopter</u> with <u>Lycoming VO435/540 &amp; TVO540</u> and <u>Franklin 6V, 6V4, &amp; 6VS Series</u> engines.  <i>Aircraft Model</i> <i>Engine Model</i></p>
2.	<p><b>Description:</b> Of the major alteration, it's function including an explanation of it's interface with other systems, if any.</p> <p><b>Comment:</b> <b>Installation of Airwolf Remote Mounted Oil Filter Kit P/N AFC-K012</b></p>
3.	<p><b>Control:</b> Operation information: Or special procedures if any.</p> <p><b>Comment:</b> <b>Pre-heating of both the engine and engine oil is recommended prior to starting the engine during periods of cold weather where the temperature is 30°F or below.</b></p>
4.	<p><b>Servicing information:</b> Such as types of fluids used, servicing points, and location of access panels, as appropriate.</p> <p><b>Comment:</b> <b>Oil System to be serviced in accordance with Lycoming Service Bulletin 480C or higher &amp; Franklin Service Bulletin. Oil should be changed at least once each 12 months. Cut the old filter open with Airwolf AFC-470 oil filter cutter at each oil change and inspect for metal contamination or any evidence that may indicate impending engine problems.</b></p>
5.	<p><b>Maintenance Instructions:</b> Such as recommended inspection/maintenance periods in which each of the major alteration components are inspected, cleaned, lubricated, adjusted, tested, including applicable wear tolerances and work recommended at each scheduled maintenance period. This section can refer to the manufactures instructions for the equipment installed where appropriate e.g. functional checks, repairs, inspections.) It should also include any special notes, cautions, or warnings as applicable.</p> <p><b>Comment:</b> <b>Inspect for security at each annual or 100 hr . inspection. After any oil change, always ground run the engine and check for leaks before flight.</b></p>
6.	<p><b>Trouble shooting information:</b> Information describing probably malfunctions, how to recognize those malfunctions, and the remedial actions to be taken.</p> <p><b>Comment:</b> <u>N/A</u></p>
7.	<p><b>Removal and replacement information:</b> This section describes the order and method of removing and replacing products, parts, and any necessary precautions. This section should also describe or refer to the manufacture's instructions to make required tests trim checks, alignment, calibrations, center of gravity changes, lifting or shoring, etc., if any.</p> <p><b>Comments:</b> <u>N/A</u></p>
8.	<p><b>Diagrams:</b> Of access plates and information, if needed, to gain access for inspection.</p> <p><b>Comment:</b> <u>N/A</u></p>
9.	<p><b>Special inspection requirements:</b> Such as X-ray, ultrasonic testing, or magnetic particle inspection, if required.</p> <p><b>Comment:</b> <u>N/A</u></p>
10.	<p><b>Application of protective treatments:</b> To the affected area after inspection and/or maintenance, if any.</p> <p><b>Comment:</b> <u>N/A</u></p>

## INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Form AFC-K012-ICA Revised 10/01/00

11.	<b>Data: Relative to structural fasteners such as type, torque, and installation requirements if any.</b>  <b>Comment:</b> __N/A
12.	<b>List of special tools:</b> Special tools that are required, if any.  <b>Comment:</b> __N/A
13.	<b>For commuter category aircraft:</b> The following additional information must be furnished, as applicable: <ul style="list-style-type: none"> <li>A. Electrical Loads</li> <li>B. Methods of balancing flight controls.</li> <li>C. Identification of primary and secondary structures&gt;</li> <li>D. Special repair methods applicable to the airplane.</li> </ul> <b>Comment:</b> __N/A
14.	<b>Recommended overhaul periods:</b> Are required to be noted on the ICA when an overhaul period has been set by the manufacturer of a component, or equipment. If there is no overhaul period, the ICA should state for item 14: "No additional overhaul time limitations."  <b>Comment:</b> __N/A
15.	<b>Airworthiness Limitation Section:</b> Include any "approved" airworthiness limitations identified by the manufacturer of FAA type Certificate Holding Office (e.g., An STC incorporated in a larger field approved major alteration may have an airworthiness limitation.) The FAA inspector should not establish, alter, or cancel airworthiness limitations without coordinating with the appropriate FAA type Certificate Holding Office. If there are no changes to the airworthiness limitations, the ICA should state for item 15: "No additional airworthiness limitations" or "Not Applicable."  <b>Comment:</b> __N/A
16.	<b>Revision:</b> This section should include information on how to revise the ICA. For example, a letter will be submitted to the local FSDO with a copy of the revised FAA Form 337 and revised ICA. The FAA inspection accepts the change by signing Block 3 and including the following statement: "The attached revised/new Instructions for Continued Airworthiness (date_____) for the above aircraft or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness (date_____)." Once the revision has been accepted, a maintenance record entry will be made, identifying the revision, its location, date of the Form 337.  <b>Comment:</b> __ A letter will be submitted to the local FSDO with a copy of the revised FAA Form 337 and revised ICA. The FAA inspector accepts the change by signing Block 3 and including the following statement: "The attached revised/new Instructions for Continued Airworthiness (date_____) for the above aircraft or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness (date_____)." Once the revision has been accepted, a maintenance record entry will be made, identifying the revision, its location, date of the Form 337.

### NOTE:

**Implementation and Record Keeping:** For major alterations performed in accordance with FAA Field Approval policy, the owner operator operating under part 91 is responsible for ensuring that the ICA is made part of the applicable section 92.409 inspection program for their aircraft. This is accomplished when a maintenance entry is made in the aircraft's maintenance record in accordance with section 43.9. This entry recorded the major alteration and identifies the original ICA location (e.g., Block 8 of FAA Form 337, dated 5/28/98) along with a statement that the ICA is now part of the aircraft's inspection/maintenance requirements.

For major alterations performed in accordance with field approval on air carrier aircraft, the air carrier operator is responsible for ensuring that the ICA is made part of the applicable inspection/maintenance program for their aircraft. If a procedure is not currently included in the operator's manual to incorporate ICA, this process will need to be appropriately addressed (i.e. the operator submits a revision to its maintenance program to the applicable certificate-holding district office (CHDO).

For aircraft inspected under an Approved Aircraft Inspection Program (AAIP), the operator will submit a change to the CHDO in accordance with section 135.419b).

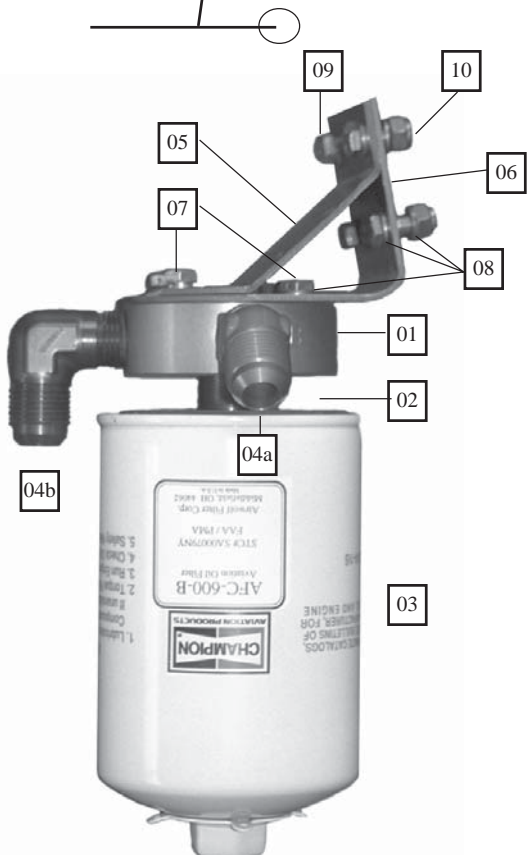
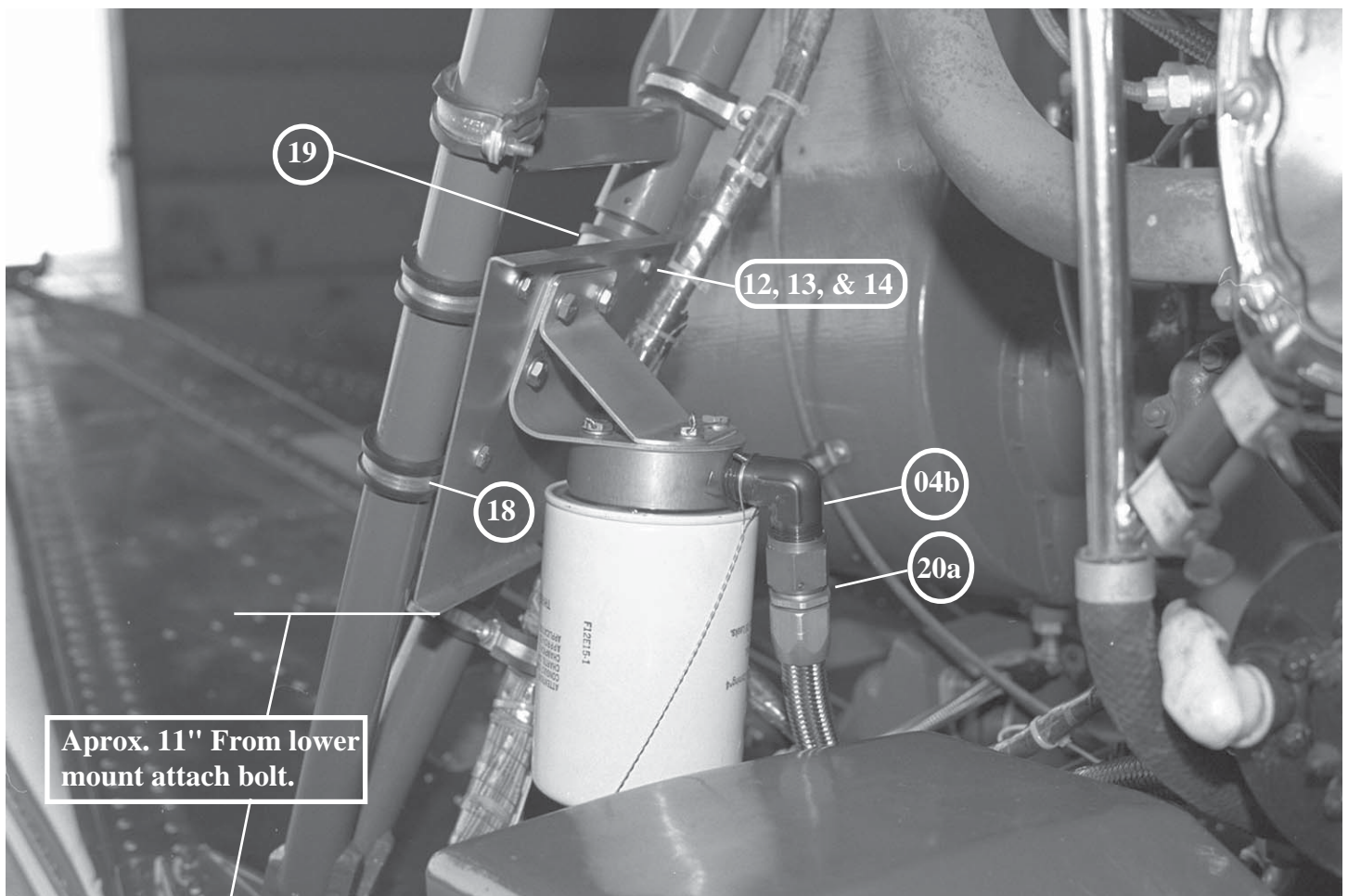
For air carrier aircraft inspected using an annual/100 hour inspection program, a reference to the new ICA will be made in the aircraft's maintenance record in accordance with section 43.9. This entry records the major alteration and identifies the original ICA location (e.g., ICA are located/attached to Block 8 of FAA Form 337, dated 5/28/98). In addition, the operator will request a revision to the operator's Operations Specifications, additional maintenance requirements, which incorporates the ICA into the inspection program.

# WEIGHT AND BALANCE REPORT

## HILLER UH12 ALL MODELS

[illegible]





### Material List

Ind.	Part Number	Description	Quantity
01.	OFB-11	Oil Filter Base, -10 Port	(1)
02.	OFS-10	Oil Filter Stud	(1)
03.	AFC-600	Oil Filter, Long	(1)
04a.	MS20823-10D	Elbow, 45°	(1)
04b.	MS20822-10D	Elbow, 90°	(1)
05.	DBL-12	Bracket, Support	(1)
06.	OFM-15	Oil Filter Mount, 105°	(1)
07.	AN4H-4A	Bolt, Drilled Head	(4)
08.	AN960-416	Flat Washer	(12)
09.	AN4-5A	Bolt	(4)
10.	MS20365-428A	Locknut	(4)
11.	OFM-17	Oil Filter Mount Plate, Hiller	(1)
12.	AN3-4A	Bolt	(4)
13.	AN960-10	Flat Washer	(8)
14.	MS20365-1032A	Locknut	(4)
18.	MS21919WDG-18	Adel Clamp	(2)
19.	MS21919WDG-20	Adel Clamp	(2)
20a.	13000210-0240	Teflon Hose Assy S/90°, 24" Long	(1)

## Airwolf Filter Corp.

Assembly Drawing.

OFB-11 Oil Filter Base

OFM-15 Oil Filter Mount 105°, OFM-17 Oil Filter Mount Plate Hiller

DBL-12 Doubler Plate

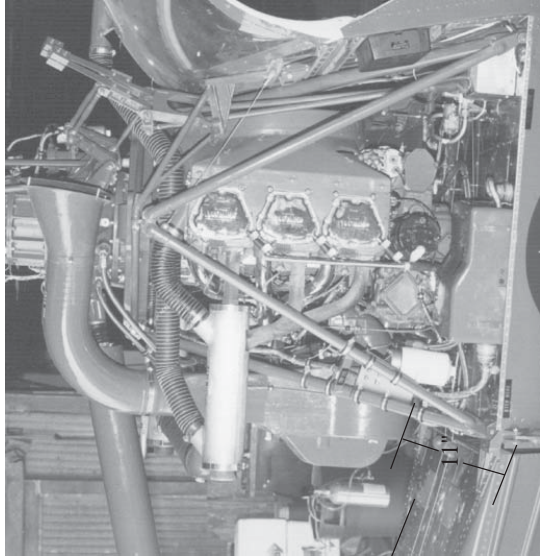
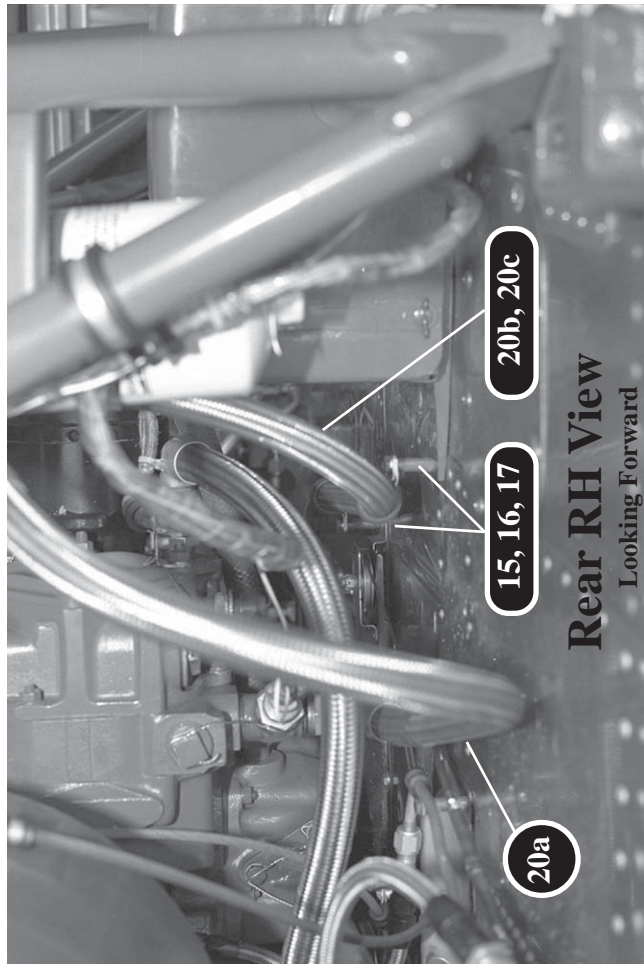
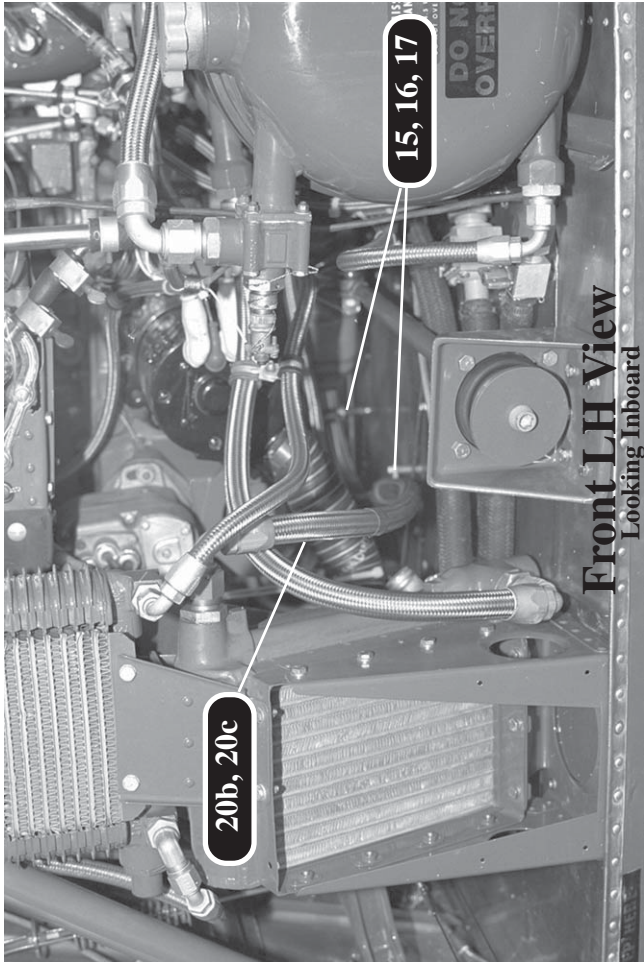
### Revisions

11/01/95

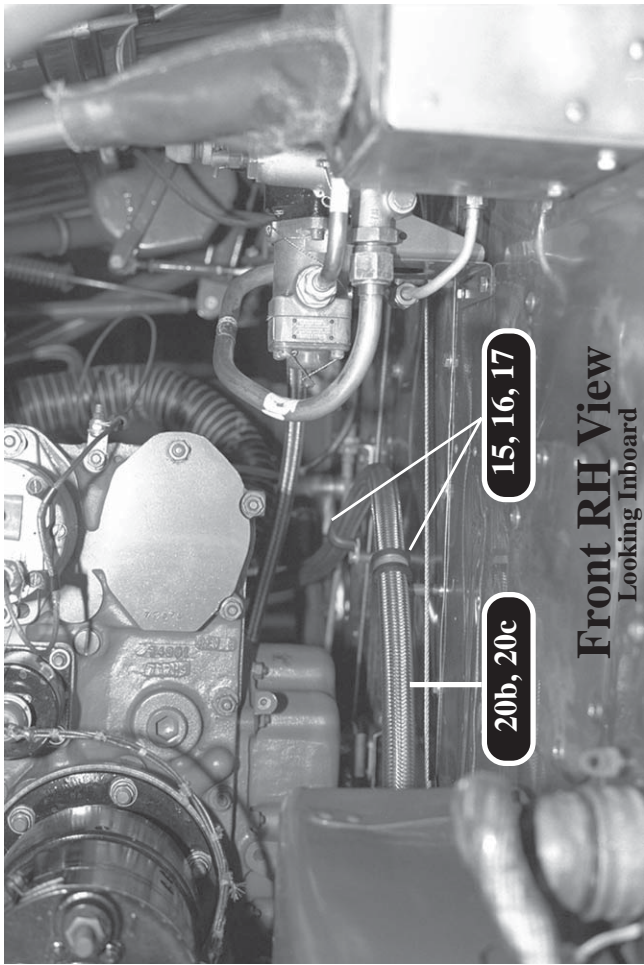
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John P. Kochy





Bottom of Oil filter  
mount plate (11) is  
positioned correctly  
when approximately 11"  
from lower attach bolt.

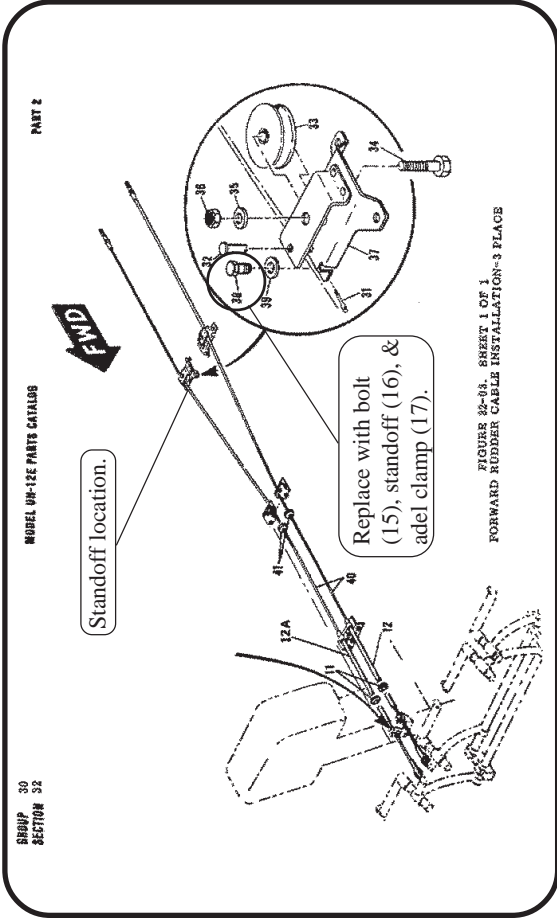
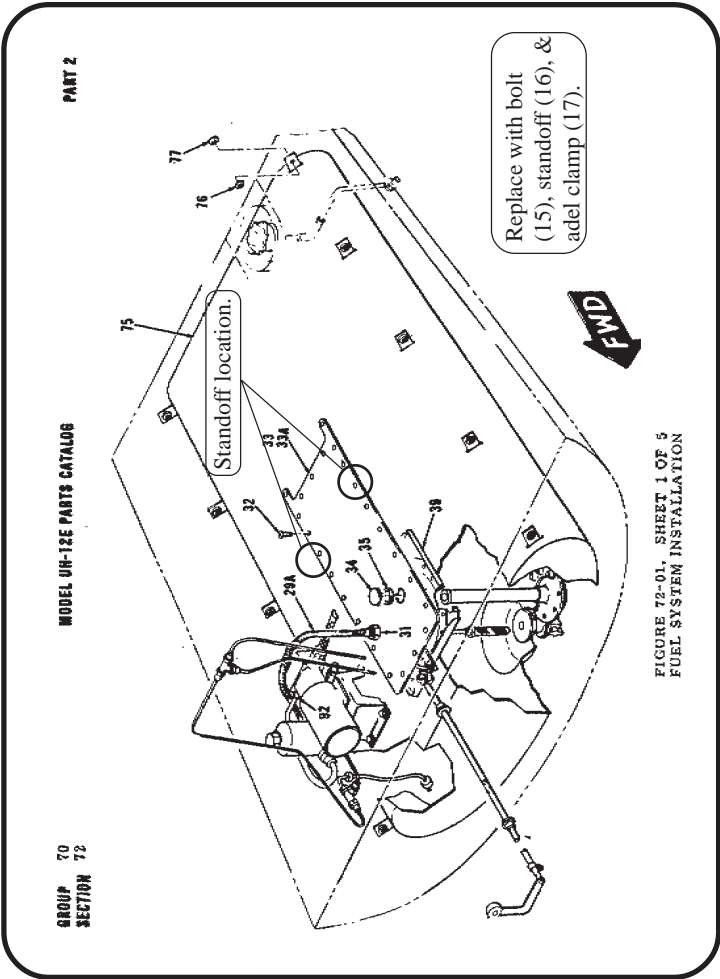
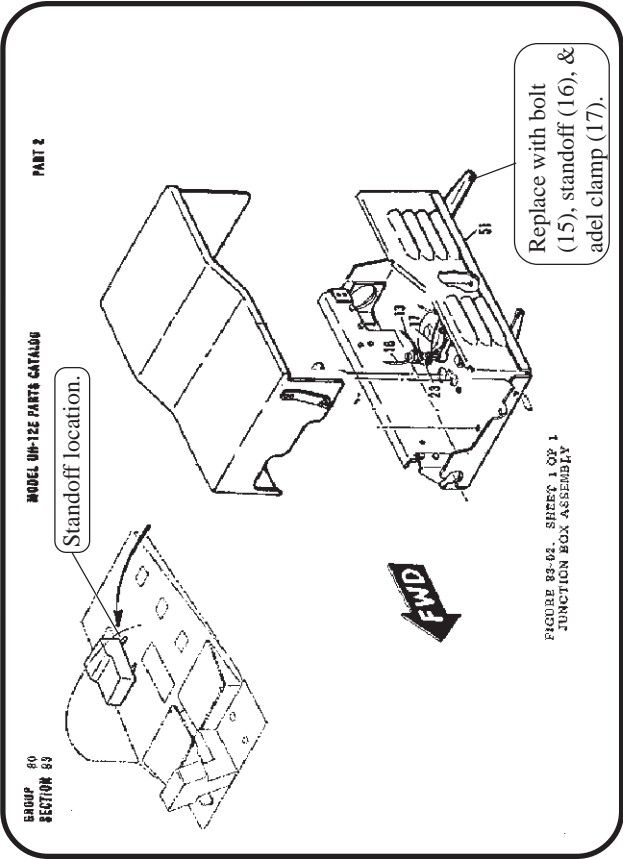


## Airwolf Filter Corp.

Installation of and hose routing of Airwolf Filter Kit on Hiller UH12 series Hiller Helicopters powered by Lycoming engines.

Revisions





# Airwolf Filter Corp.

Installation of and hose routing of Airwolf Filter Kit on Hiller UH12 series Hiller Helicopters powered by Lycoming engines.

11/01/95

Dwg# AFC-D-0050

John P. Kochy