



AIRWOLF FILTER CORP.

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TO THE MECHANIC:

This P/N AFC-K015 remote mount oil filter kit incorporates our generic STC approved for all P&W powered aircraft. The STC paperwork provided with this kit utilizes the new approved model list (AML) system recently instituted by the FAA. Although you may notice your particular aircraft is not specifically listed under this new classification, it is still approved.

Upon installing this filter kit, you will need to fill out and file a 337 form for this installation referencing the P/N AFC-K015 kit and the STC# SA0128NY. If your particular aircraft is not listed on the AML, you will also need a field approval by your local FSDO for this installation. This is necessary because the FAA only updates this list on a quarterly basis, and until your aircraft is listed, a field approval is required. If you are unsure whether or not you need a field approval, please call us directly.

With this paperwork, your local FSDO inspector has all the approved engineering data necessary to issue a field approval. This inspector is not an engineer and typically all he is doing is seeing if you installed it I/A/W the installation instructions and usually to make sure it doesn't leak. That's it.

If your local FSDO inspector has any questions or concerns on this STC, he is to call the Aircraft Certification Office which will clarify the details. They are very familiar with our filter kits and can address any concerns your FSDO inspector may have on your particular installation.

FAA - Chicago Aircraft Certification Office (CHI-ACO)
Engine and Propeller Division
2300 East Devon Street
Des Plaines, IL 60018
(847) 294-7358 / (847) 294-7834 Fax

FAA APPROVED

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OCT 31 2012

CHICAGO AIRCRAFT
CERTIFICATION OFFICE
CENTRAL REGION

If your aircraft required a field approval, we must have a copy in order to update the (AML) list on our STC. Please send us a copy in addition to the one you will file with your local FSDO. We will then forward our copy to the Aircraft Certification Office for them to update the (AML) list on our STC.

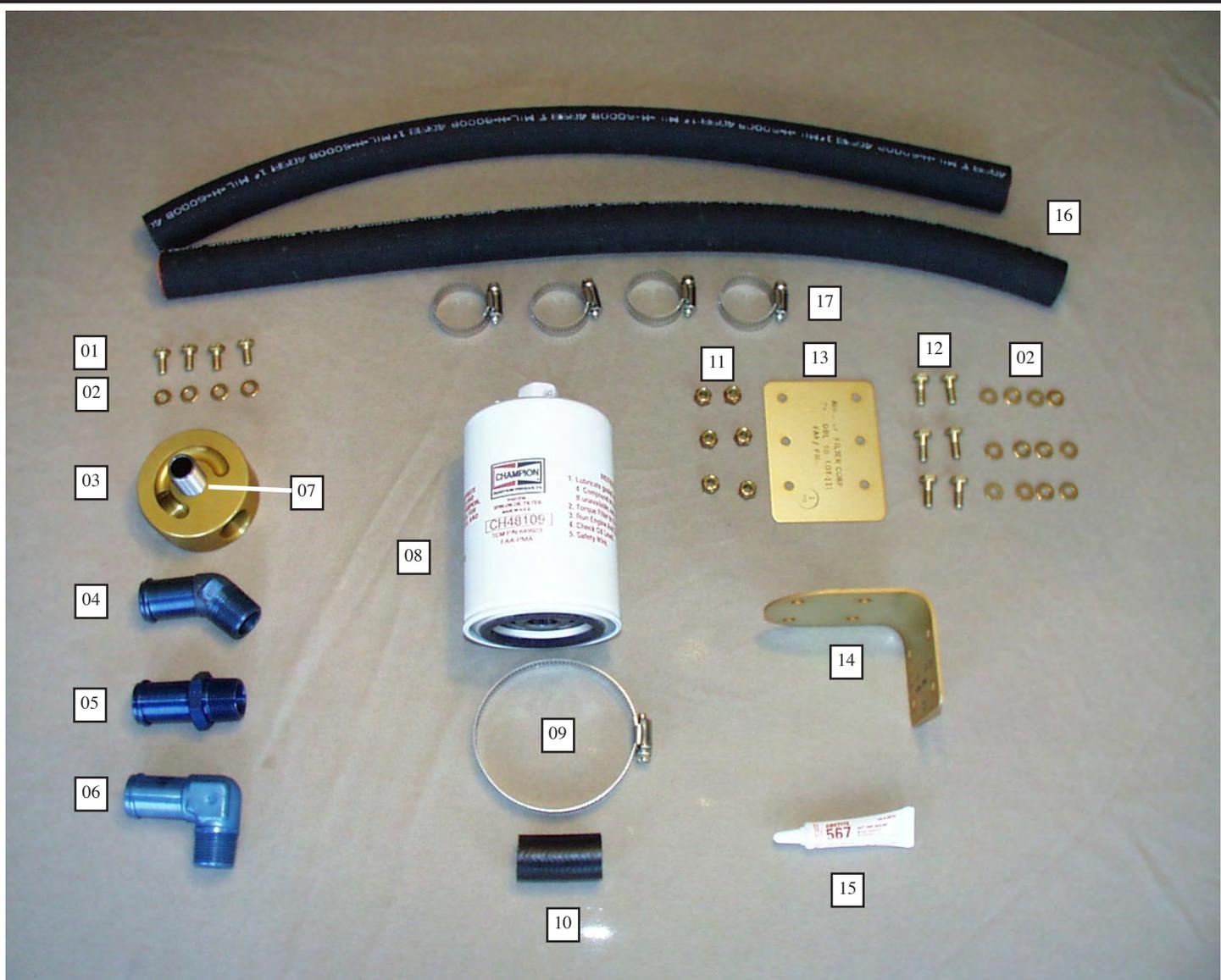
DATA PERTINENT TO ALL INSTALLATIONS

Prior to installing the filter kit on the aircraft, weigh the filter kit, add the weight of the hoses, and subtract the oil screen or oil filter adapter removed from the engine, and determine the net weight being added to the aircraft for determining the weight and balance of the aircraft later. Once the filter kit is installed on the aircraft, if you choose to purchase the hoses from Airwolf, we will supply you with the Teflon Hoses specified in this STC. At the time of the order we will need the flare to flare length of the hoses, and hose ends needed on each hose ie: Straight to Straight, Straight to 90°, Straight to 45°, etc. allowing for engine torque and vibration per AC43.13.

If our instructions do not specifically say your allowed to do something, assume that means you are not allowed to do it without our written approval

Thank you for your help.

Airwolf Filter Corp.



Applicability:

Pratt & Whitney R985 powered Aircraft having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release:

09/01/99

Revision:

C

Date:

11/11/10

Parts List No. AFC-K015-PL

01.	AN4H-4A	Bolts, Drilled Head	(4)
02.	AN960-416	Flat Washers	(16)
03.	OFB-15	Oil Filter Base	(1)
04.	AN844-16D	Hose Elbow, 45°	(2)
05.	AN840-16D	Hose Fitting, Straight,	(2)
06.	AN842-16D	Hose Elbow, 90°	(2)
07.	OFS-10	Oil Filter Stud	(1)
08.	AFC-600	Oil Filter, Long, or Equivalent [Champion CH48109]	(1)
09.	QS100M52H	Hose Clamp, 3-1/4"	(1)
10.	MIL6000-3/4-2	Dampener	(1)
11.	MS20365-428A	Locknuts	(6)
12.	AN4-5A	Bolts	(6)
13.	DBL-10	Doubler Plate	(1)
14.	OFM-11	Oil Filter Mount Plate, Vertical	(1)
15.	56707	Loctite® 567 PST Teflon Thread Sealant	(1)
16.	MIL6000-1	Mil6000 Hose, 1" I.D.	(2)
17.	AE0000	Firesleeving	
17.	QS100M16H	Hose Clamp, 1"	(4)
18.	AFC-K015-II	Installation Instructions	(1)
19.	AFC-K015-MI	Instructions for Continued Airworthiness	(1)
20.	AFC-K015-PL	Parts List	(1)

Installation of the remote oil filter kit on Boeing Model 75 series aircraft with Pratt & Whitney R985 radial engines.**First Release: 09/01/99**
Revision: C
Date: 11/11/10

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.

01. Remove left engine cowl (top and door) and bottom engine cowl.
02. Drain oil (optional).
03. Remove engine oil return line P/N A75N1-3004 (note this may be a length of 1" Mil 6000 hose). This line runs from the engine to the oil tank.
04. Turn the AN842-16D on top of the oil tank to where it points to the engine primer mounted in the step.
05. Remove the screw that goes through the end of the firewall stiffener P/N 75-2912. This is located on the left side of the firewall on the aft side. Loosen the screw that goes through the firewall stiffener and the tab welded on the fuselage. This screw is 4-5/16" inboard of the removed screw. (see attached drawing). Drill the hole of the removed screw to 1/4" (.250).
06. Measure 3-9/16" out from a vertical line drawn from the C/L of the left engine mount studs. Using reinforcing plate P/N DBL-10 as a template drill the other 5 holes 1/4" (.250). The previously drilled hole is the middle outboard hole.
****** SEE WARNING (A) BELOW ******
07. Slip reinforcement plate (DBL-10) between the firewall and stiffeners. The long side goes up.
08. Bolt oil filter base support angle P/N OFM-11 to firewall and reinforcement plate using (6ea) provided AN 4-5A bolts.
****** SEE WARNING (B) BELOW ******
09. Install provided AN842-16D fittings in the oil filter base. The fitting in B hole points horizontal with the filter base. The other points over the first fitting.
10. Bolt oil filter base (OFB-15) to oil Filter Mount Plate, Vertical (22b) using provided AN4H-4A bolts. Oil inlet hole "B" is positioned to the front of the aircraft. Secure bolts with safety wire.
****** SEE WARNING (C) BELOW ******
11. Install one 25" piece of 1" Mil 6000H hose using provided QS100M16H hose clamps. The "B" hole is the oil inlet and goes to the oil pump. The "A" port is the oil outlet and it goes to the oil tank. Tighten clamps.
12. Install oil filter as per manufacturers specifications and safety wire.
13. Using the 2" piece of 3/4" Mil 6000 hose provided, secure to bottom of oil filter with (1) QS100M52W 3-3/4" clamp obtained locally, and locate between bottom of oil filter and existing firewall. This will strengthen the oil filter mount and dampen the vibrations of the engine.
14. Safety wire drain and refill oil tank with 4.4 gals. oil. (If step #2 is omitted this step is not necessary).
15. Run engine and check for leaks.
16. Determine weight and balance, initiate 337 form, and update the equipment list.

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

LOCAL STIFFENING OF THE FIREWALL MAY BE NECESSARY TO SUPPORT WEIGHT OF OIL FILTER AND PREVENT FIREWALL CRACKING.

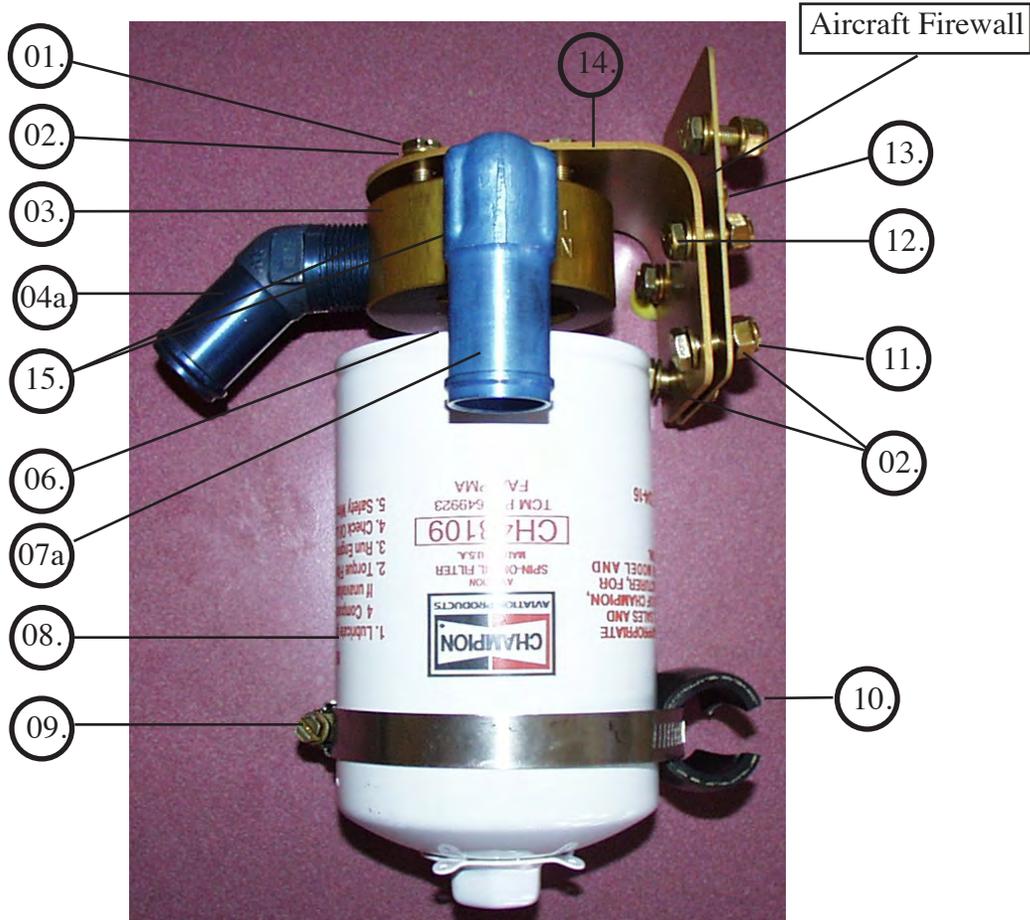
****** WARNING (B) ******

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 (C) ******

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

FIREWALL INSTALLATION ON P&W R985 SERIES



Parts List

01.	AN4H-4A	1/4" Bolt, 1/2" Long	(4)
02.	AN960-416	1/4" Flat Washers	(16)
03.	OFB-15	Oil Filter Base	(1)
04a.	AN844-16D or	45° Hose Elbow	(2)
05a.	AN840-16D	Straight Hose Fitting	(2)
06.	OFS-10	Oil Filter Stud	(1)
07a.	AN842-16D	90° Hose Elbow	(2)
08.	AFC-600	Long Oil Filter [Champion CH48109] or Equivalent	(1)
09.	QS100M52H	3-1/4" Hose Clamp	(1)
10.	MIL6000-3/4-2	Dampener	(1)
11.	MS20365-428A	1/4" Locknuts	(6)
12.	AN4-5A	1/4" Bolts	(6)
13.	DBL-10	Doubler Plate	(1)
14.	OFM-11	Vertical Oil Filter Mount	(1)
15.	56707	Loctite® 567 PST Teflon Thread Sealant	(1)

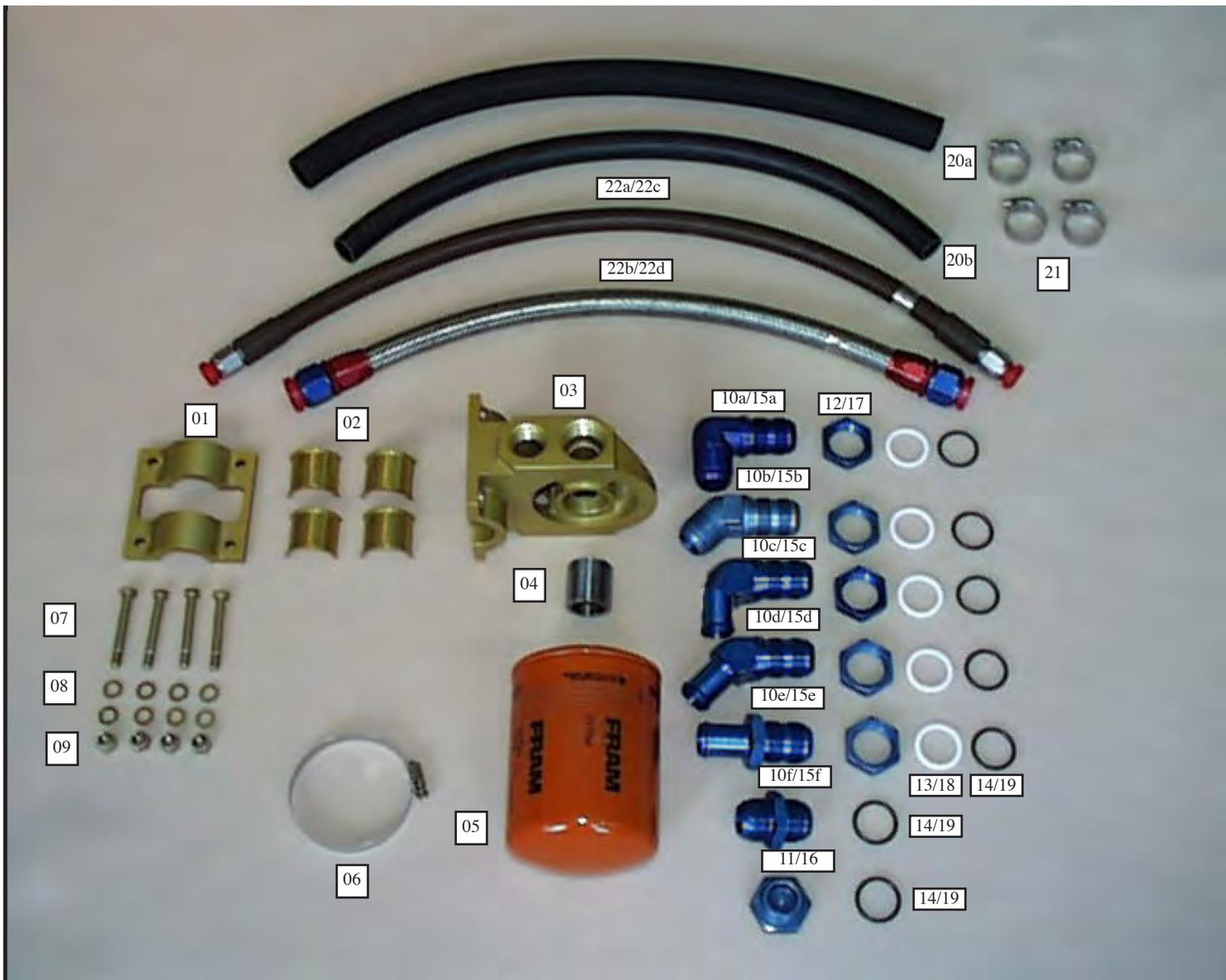
**** WARNING (B) ****

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.

Airwolf Filter Corp.

Assembly Drawing.
Firewall Mounted Oil Filter

Drawing # AFC-D-0049



Oil Filter Kit AFC-K015

Applicability: Pratt & Whitney R985 - R1830 powered Aircraft having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 09/01/99
Revision: C
Date: 11/11/10

Parts List No. AFC-K015-PL

Index	Part Number	Description	Quantity
01.	OFB-18-12	Clamp Plate, Oil Filter Base	(1)
02a. or	OFB-18-13	1.000" Bushing Set	(1)
02b. or	OFB-18-14	1.125" Bushing Set	(1)
02c. or	OFB-18-15	1.250" Bushing Set	(1)
02d. or	OFB-18-16	1.375" Bushing Set	(1)
02e. or	OFB-18-17	1.500" Bushing Set	(1)
02f.	OFB-18-18	1.625" Bushing Set	(1)
03.	OFB-18-11	Adapter Body, Oil Filter Base	(1)
04.	OFS-12	Oil Filter Stud	(1)
05.	AFC-700	Oil Filter	(1)
06.	QS100M76H	5-1/2" Hose Clamp	(1)
07.	AN5H-12A	5/16" Bolt, 1-1/4" Long	(4)
08.	AN960-516	5/16" Flat Washer	(8)
09.	MS20365-516	5/16" Locknut	(4)
10a. or	AN833-16D	90° Bulkhead Fitting, Flared Ends	(2)
10b. or	AN837-16D	45° Bulkhead Fitting, Flared Ends	(2)
10c. or	AN838-16D	90° Bulkhead Fitting, MIL6000 Type Hose	(2)
10d. or	AN839-16D	45° Bulkhead Fitting, MIL6000 Type Hose	(2)

Oil Filter Kit AFC-K015

Applicability: Pratt & Whitney R985 - R1830 powered Aircraft having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 09/01/99
Revision: C
Date: 11/11/10

Parts List No. AFC-K015-PL (continued)

Index	Part Number	Description	Quantity
10e. or	AN807-16D	Straight Tube to Hose Adapter	(2)
10f.	AN815-16D	Union	(2)
11.	AN814-16D	Plug	(2)
12.	AN6289-16D	Bulkhead Nut	(2)
13.	MS28773-916	Teflon Boss Gasket	(2)
14.	M83248/1-916	Viton O-Ring	(2)
15a. or	AN833-12D	90° Bulkhead Fitting, Flared Ends	(2)
15b. or	AN837-12D	45° Bulkhead Fitting, Flared Ends	(2)
15c. or	AN838-12D	90° Bulkhead Fitting, MIL6000 Type Hose	(2)
15d. or	AN839-12D	45° Bulkhead Fitting, MIL6000 Type Hose	(2)
15e. or	AN807-12D	Straight Tube To Hose Adapter	(2)
15f.	AN815-12D	Union	(2)
16.	AN814-12D	Plug	(2)
17.	AN6289-12D	Bulkhead Nut	(2)
18.	MS28773-912	Teflon Boss Gasket	(2)
19.	M83248/1-912	Viton O-Ring	(2)
20a. or	MIL6000-1	1" I.D. MIL6000 Hose	(2)
20b.	MIL6000-3/4	3/4" I.D. MIL6000 Hose	(2)
21.	QS100M16H	1" Hose Clamp	(4)
22a. or	F13000016-0xxx	Titeflex® Teflon Hose Assy with Fire Sleeving. [-16 Size]	(2)
22b. or	13000016-0xxx	Titeflex® Teflon Hose Assy w/o Fire Sleeving. [-16 Size]	(2)
22c. or	F13000012-0xxx	Titeflex® Teflon Hose Assy with Fire Sleeving. [-12 Size]	(2)
22d. or	13000012-0xxx	Titeflex® Teflon Hose Assy w/o Fire Sleeving. [-12 Size]	(2)
23.	DBL-14	Doubler Plate, Beaver	(1)
24.	B-7669B	Chip Detector	(1)
25.	AFC-K015-II	Installation Instructions	(1)
26.	AFC-K015-MI	Maintenance Instructions	(1)
27.	AFC-K015-PL	Parts List	(1)

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

LOCAL STIFFENING OF THE FIREWALL MAY BE NECESSARY TO SUPPORT WEIGHT OF OIL FILTER AND PREVENT FIREWALL CRACKING.

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

LUBRICATE FITTINGS WITH THREAD LUBE OR LIGHT OIL BEFORE INSTALLATION INTO OIL FILTER BASE OTHERWISE GALLING OF MATERIAL MAY RESULT.

***** WARNING (C) *****

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

***** WARNING (D) *****

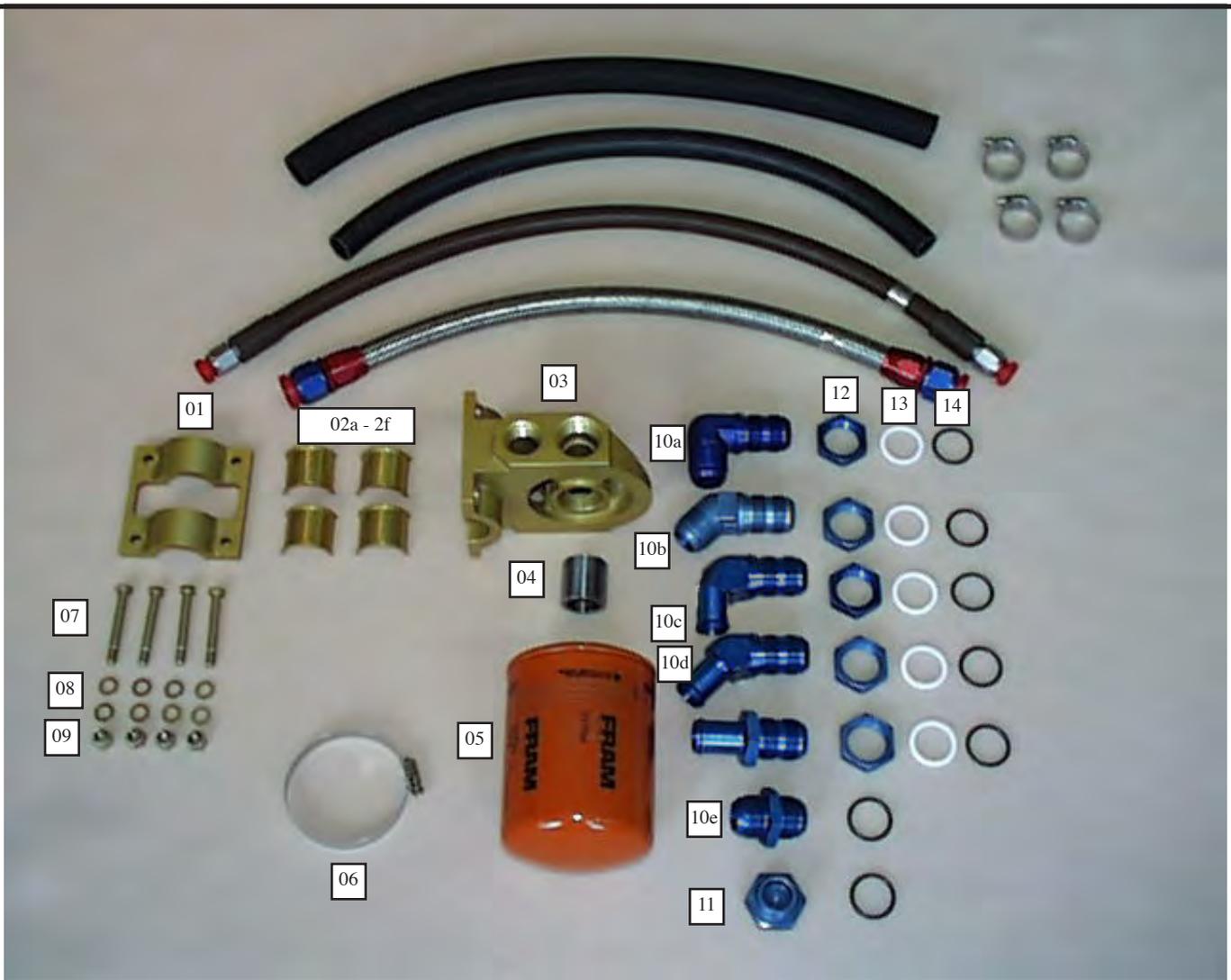
NO SUBSTITUTION OF OIL FILTER ALLOWED. THIS FILTER INCORPORATES AN INTERNAL BYPASS RELIEF VALVE SET TO OPEN TO AIRWOLF'S SPECS. HAS THE LATEST MICROGLAS FILTER TECHNOLOGY WHICH ALLOWS FOR HI FLOW RATES AND HIGH EFFICIENCY, AND HAS AN INTERNAL SCREEN COVERING THE OIL PRESSURE BYPASS VALVE, WHICH HELPS CONTAIN THE METAL INSIDE THE FILTER CAN WHEN A CATASTROPHIC ENGINE FAILURE OCCURS.

***** WARNING (E) *****

NEVER, EVER INSTALL AN OIL FILTER ON THE ENGINE OIL PUMP INLET. THE OIL LINES CAN COLLAPSE, THEREBY STARVING THE ENGINE OF OIL.

THE OIL ROUTING AND OIL FLOW IS ALWAYS;

ENGINE SCAVENGE PUMP OUTLET ---> AIRWOLF OIL FILTER ---> OIL COOLER [if applicable] ---> OIL TANK.



Oil Filter Kit AFC-K015

Applicability:

Pratt & Whitney R2000 powered Aircraft having firewalls
of .021 ASTM A527 galvanized steel or equivalent.

First Release:

09/01/99

Reviision:

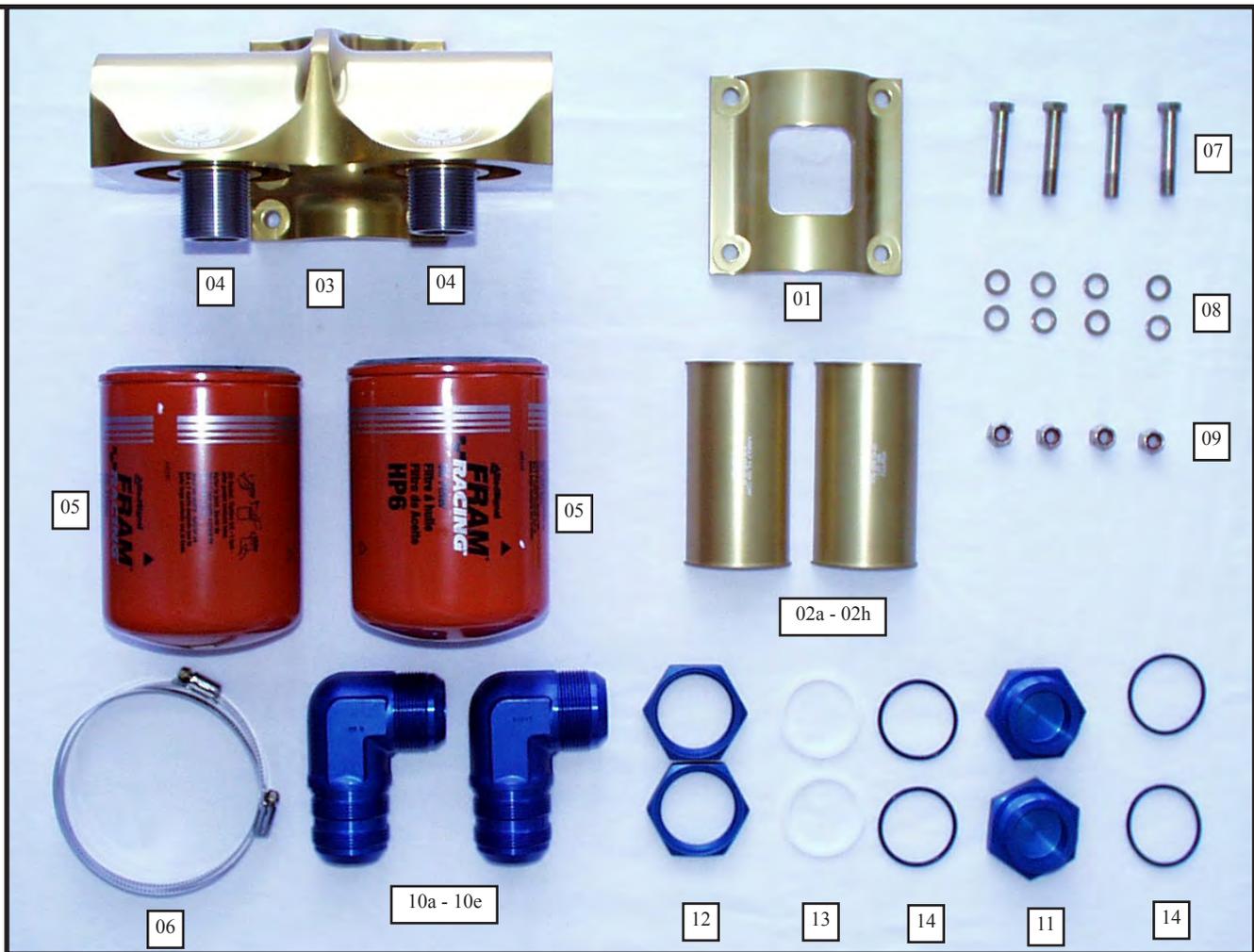
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Date:

11/11/10

Parts List No. AFC-K015-PL

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	OFB-18-12	Clamp Plate, Oil Filter Base	(1)
02a. or	OFB-18-13	1.000" Bushing Set	(1)
02b. or	OFB-18-14	1.125" Bushing Set	(1)
02c. or	OFB-18-15	1.250" Bushing Set	(1)
02d. or	OFB-18-16	1.375" Bushing Set	(1)
02e. or	OFB-18-17	1.500" Bushing Set	(1)
02f.	OFB-18-18	1.625" Bushing Set	(1)
03.	OFB-20-11	Adapter Body, Oil Filter Base	(1)
04.	OFS-12	Oil Filter Stud	(1)
05.	AFC-700	Oil Filter	(1)
06.	QS100M76H	5-1/2" Hose Clamp	(1)
07.	AN5H-12A	5/16" Bolt, 1-1/4" Long	(4)
08.	AN960-516	5/16" Flat Washer	(8)
09.	MS20365-516	5/16" Locknut	(4)
10a. or	AN833-20D	90° Bulkhead Fitting, Flared Ends	(2)
10b. or	AN837-20D	45° Bulkhead Fitting, Flared Ends	(2)
10c. or	AN838-20D	90° Bulkhead Fitting, MIL6000 Type Hose	(2)
10d. or	AN839-20D	45° Bulkhead Fitting, MIL6000 Type Hose	(2)
10e.	AN815-20D	Union	(2)
11.	AN814-20D	Plug	(2)
12.	AN6289-16D	Bulkhead Nut	(2)
13.	MS28773-920	Teflon Boss Gasket	(2)
14.	M83248/1-920	Viton O-Ring	(2)



Oil Filter Kit AFC-K015

Applicability:

Pratt & Whitney R2800 - R3350 powered Aircraft having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 09/01/99

Revision: C

Date: 11/11/10

Parts List No. AFC-K015-PL

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	OFB-19-12	Clamp Plate, Oil Filter Base	(1)
02a. or	OFB-19-17	1.500" Bushing Set	(1)
02b. or	OFB-19-18	1.625" Bushing Set	(1)
02c. or	OFB-19-19	1.550" Bushing Set	(1)
02d. or	OFB-19-20	1.875" Bushing Set	(1)
02e. or	OFB-19-21	2.000" Bushing Set	(1)
02f.	OFB-19-22	2.125" Bushing Set	(1)
02g.	OFB-19-23	2.250" Bushing Set	(1)
02h.	OFB-19-24	2.375" Bushing Set	(1)
03.	OFB-19-11	Adapter Body, Oil Filter Base	(1)
04.	OFS-12	Oil Filter Stud	(2)
05.	AFC-700	Oil Filter	(2)
06.	QS100M76H	5-1/2" Hose Clamp	(2)
07.	AN6-17A	3/8" Bolt, 1-7/8" Long	(4)
08.	AN960-616	3/8" Flat Washer	(8)
09.	MS20365-624A	3/8" Locknut	(4)
10a. or	AN833-24D	90° Bulkhead Fitting, Flared Ends	(AR)
10b. or	AN837-24D	45° Bulkhead Fitting, Flared Ends	(AR)
10c. or	AN838-24D	90° Bulkhead Fitting, MIL6000 Type Hose	(AR)
10d. or	AN839-24D	45° Bulkhead Fitting, MIL6000 Type Hose	(AR)
10e.	AN815-24D	Union	(AR)
11.	AN814-24DL	Plug	(2)
12.	AN6289-24D	Bulkhead Nut	(2)
13.	MS28773-924	Teflon Boss Gasket	(2)
14.	M83248/1-924	Viton O-Ring	(4)

Installation Instructions No. AFC-K015-B-II

Applicability:	DeHaviland DHC-2 Beaver with Pratt & Whitney R985 engine having firewall of .021 ASTM A527 galvanized steel or equivalent.	First Release:	09/01/00
		Revision:	C
		Date:	11/10/10

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.

01. Remove engine cowling as needed to gain access to engine, oil cooler and oil tank.

02. Drain engine oil and tank (optional).

03. Remove engine scavenge oil return line. This line routes from the engine to the oil cooler.

TIP: You always want to filter oil at it's hottest point, and in front of the oil cooler. The hotter the oil is, the more it is willing to get rid of dirt and contaminants, and it keeps the oil cooler from becoming a trash collector. Therefore the oil filter should always be installed ahead of the oil cooler.

04. Per installation drawing AFC-0053, locate the lower RH footwell, and drill and install DBL-14 doubler plate to cabin side of firewall, and secure with (28) MS20613-4C4 Stainless Steel Rivets provided.

05. Using bolts (07), washers (08), and locknuts (09) supplied, secure oil filter base (03) to doubler plate, install rear clamp plate (01) to inside of footwell, and torque to 100-140 in/lbs.

Note: When done correctly, the firewall and doubler will be sandwiched between the oil filter base (03) and oil filter clamp plate (01).

06. Onto each bulkhead fitting (10a), install in order 1 ea. bulkhead nut (12), boss gasket (13), and O-Ring (14).

CAUTION: O-ring (14) and boss gasket (13 must seal and be positioned in the center, smooth, non threaded area of the bulkhead fitting. If this is not done, when you tighten down the blue bulkhead nut (12), you will force the O-Ring (14) against the end of the first set of threads on the bulkhead fitting, cutting the O-Ring, and mushrooming out the Teflon Boss gasket (13) like a large "C" causing a small oil leak.

07. Lightly oil assembled bulkhead fittings and install into appropriate inlet/outlet holes of oil filter base (03) but do not tighten at this time.

******* WARNING *******

DO NOT INSTALL DRY FITTINGS INTO OIL FILTER BASE OTHERWISE GALLING OF MATERIAL WILL RESULT.

08. Install and connect the 27" long -16 hose from the outlet of the scavenge oil pump to the "IN" fitting on the oil filter base (03).

09. Install and connect the 37" long -16 hose from "OUT" fitting on the oil filter base (03) to the inlet of the oil cooler.

10. Torque hose ends to specs at this time.

11. Tighten bulkhead nuts at this time.

NOTE: The entire sealing function occurs by lightly compressing the O-Ring. Once the Teflon boss gasket (13) comes in contact with the O-Ring (14), 1/4 to 1/2 turn on the bulkhead nut (12) is all that is needed. Do not overtighten bulkhead nut as it does not need to bottom out against the oil filter adapter (03).

12. Install appropriate O-Ring (19) onto plug/bleeder (16) and install into unused inlet/outlet holes, torque to specs and safety wire.

NOTE: If the optional chip detector was purchased, install it at this time into the -12 "IN" hole on the oil filter base. Ground one of the leads on the chip detector and run the second lead up to the cockpit dash, to be connected to the yellow warning light.

13. Install oil filter (05) and tighten per filter manufacturers specifications.

Using hose clamp (06) provided, secure to bottom to oil filter to provided attachment vehicle for safety wiring of oil filter.

14. Safety wire drain plug and refill oil tank with oil. (If step #2 is omitted this step is not necessary).

15. Run engine and check for leaks.

16. Determine weight and balance, initiate 337 form, and update the equipment list.

NOTE: The assembled Airwolf oil filter Assy, with double plate and hoses weighs 9.5 lbs. and is located 51" AFT of datum Ref. STA 100.00.

GROUP ASSEMBLY PART LIST
PART 2

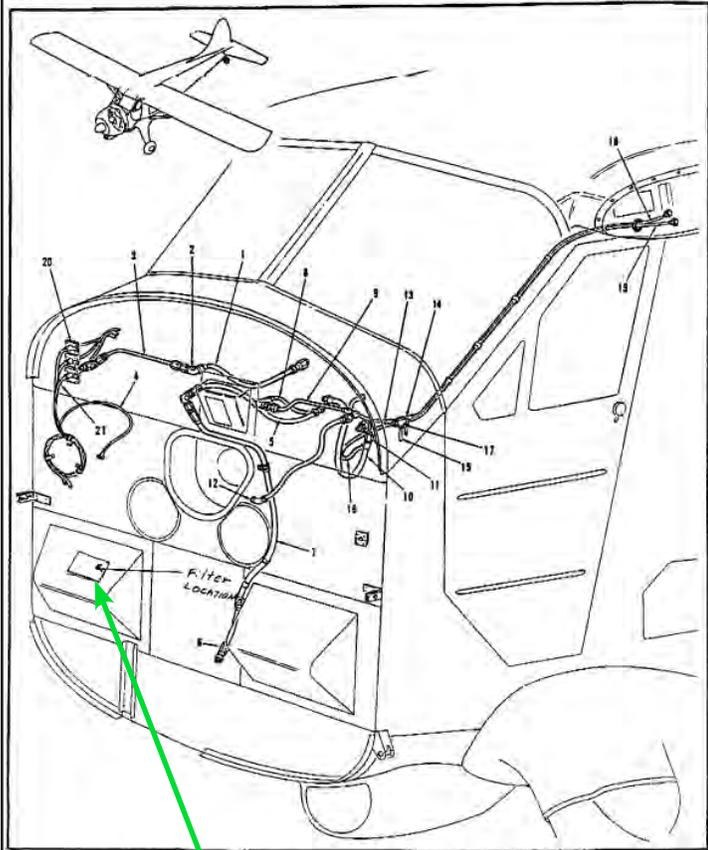
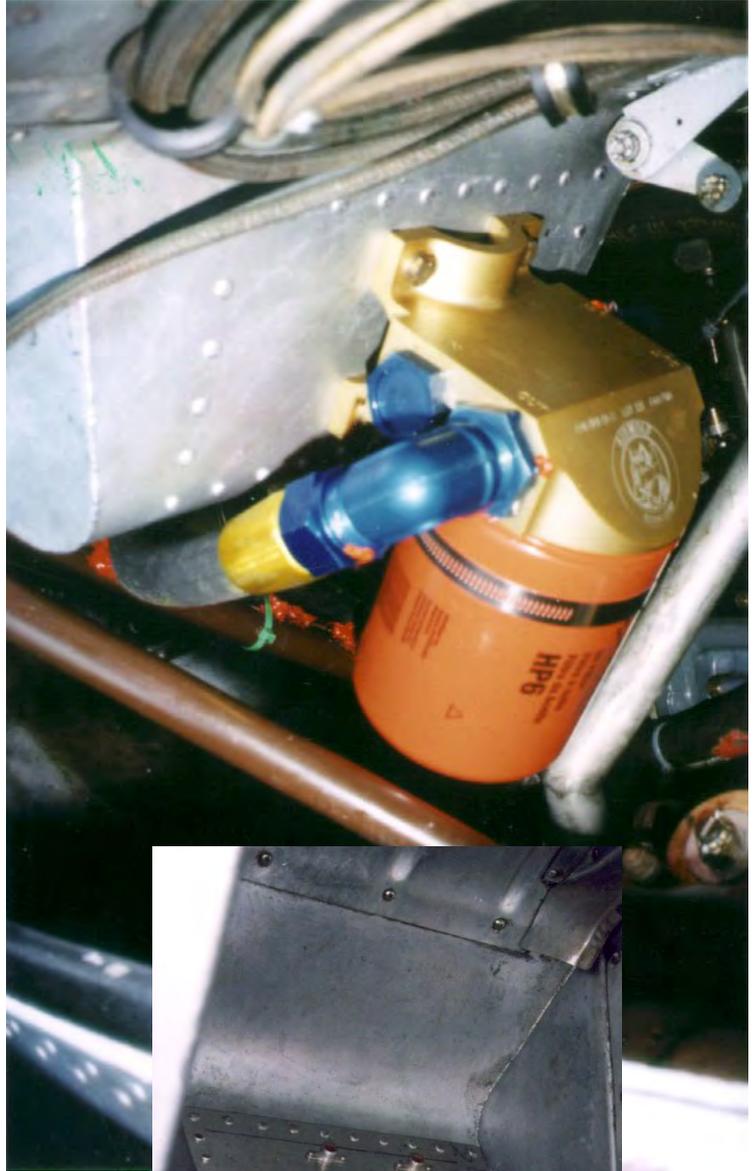


Figure 34 Piping And Wiring - Instrument panel

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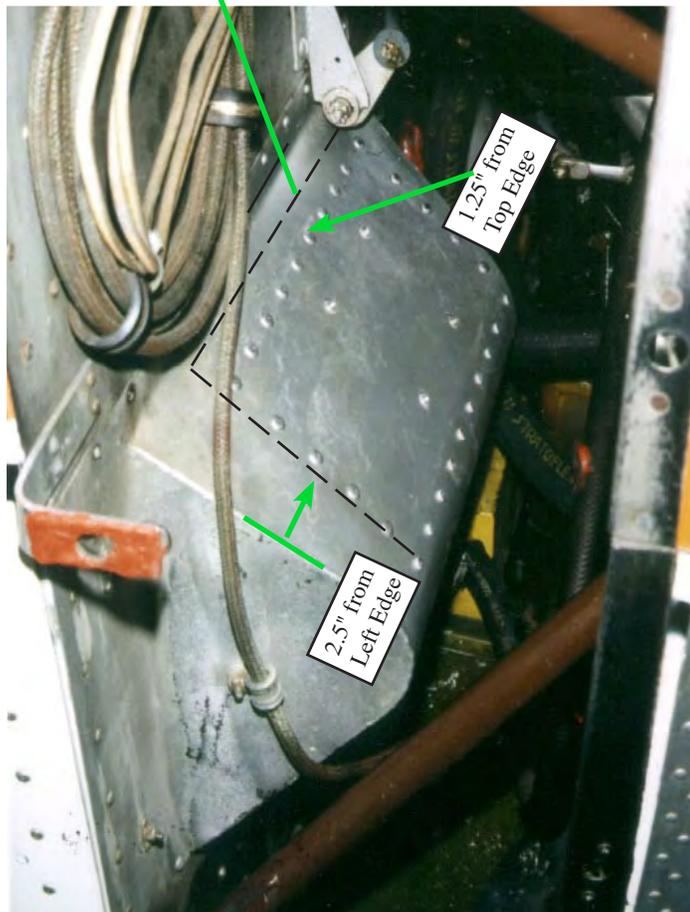
INSTALLATION DRAWING# AFC-D-0054



View from inside RH footwell P/N C2E502A

Airwolf Filter Corp.

Installation Drawing.
DBL-14 Beaver Doubler Plate



GROUP ASSEMBLY PART LIST
PART 2

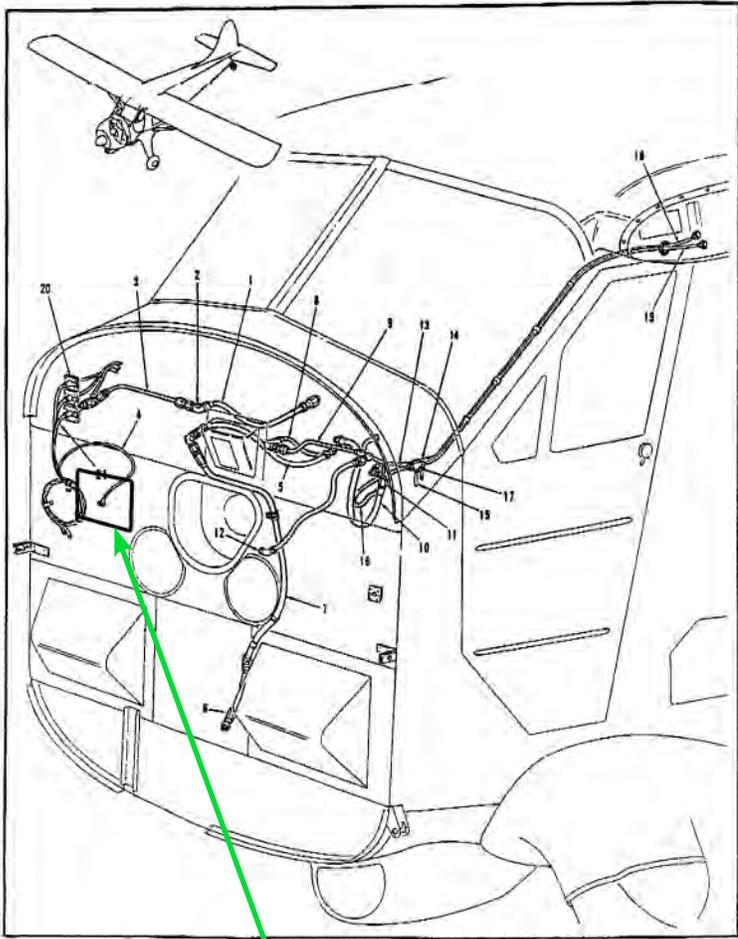


Figure 3: Piping And Wiring - Instrument panel

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Additional doubler field made from .090 6061-T6
Viewed from backside of firewall

INSTALLATION DRAWING#
AFC-D-0054-A



Alternate acceptable mounting location for aircraft with military style exhaust systems.

Airwolf Filter Corp.

Installation Drawing.
DBL-14 Beaver Doubler Plate

Applicability: Pratt & Whitney R985 & Larger, powered Aircraft having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 09/01/99
Revision: C
Date: 11/11/10

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.

01. Remove engine cowling as needed to gain access to engine, oil cooler and oil tank.
02. Drain engine oil and tank (optional).
03. Remove engine scavenge oil return line. (Note this may be a length of MIL6000 hose). This line routes from the engine to the oil tank, or from the engine to the oil cooler, whichever is applicable on your aircraft.

NOTE: You always want to filter oil at it's hottest point, and in front of the oil cooler. The hotter the oil is, the more it is willing to get rid of dirt and contaminants, and it keeps the oil cooler from becoming a trash collector. Therefore the oil filter should always be installed ahead [upstream] of the oil cooler.

04. Determine what size scavenge oil line is used in this particular aircraft.
05. Determine location of oil filter base and decide on what engine mount tube it will be mounted to.
06. Determine size of above mentioned engine mount.
07. After determining engine tube size, install appropriate bushing into oil filter base and oil filter base clamp.
08. Using bolts, washers, and locknuts supplied, secure assembled oil filter base to engine mount and torque to 100-140 in/lbs.
09. Determine which fittings needed based upon hose size and whether or not the original MIL6000 will still be used or whether the hose will be upgraded to the newer flare fitting type hose.
10. Onto each bulkhead fitting install in order 1 ea. bulkhead nut, boss gasket, and O-Ring.

CAUTION: O-ring and boss gasket **must** seal and be positioned in the center, smooth, non threaded area of the bulkhead fitting. If this is not done, when you tighten down the blue bulkhead nut, you will force the O-Ring against the end of the first set of threads on the bulkhead fitting, cutting the O-Ring, and mushrooming out the Teflon Boss gasket like a large "C" causing a small oil leak.

11. Lightly oil assembled bulkhead fittings and install into appropriate inlet/outlet holes of oil filter base but do not tighten at this time.

******* WARNING *******

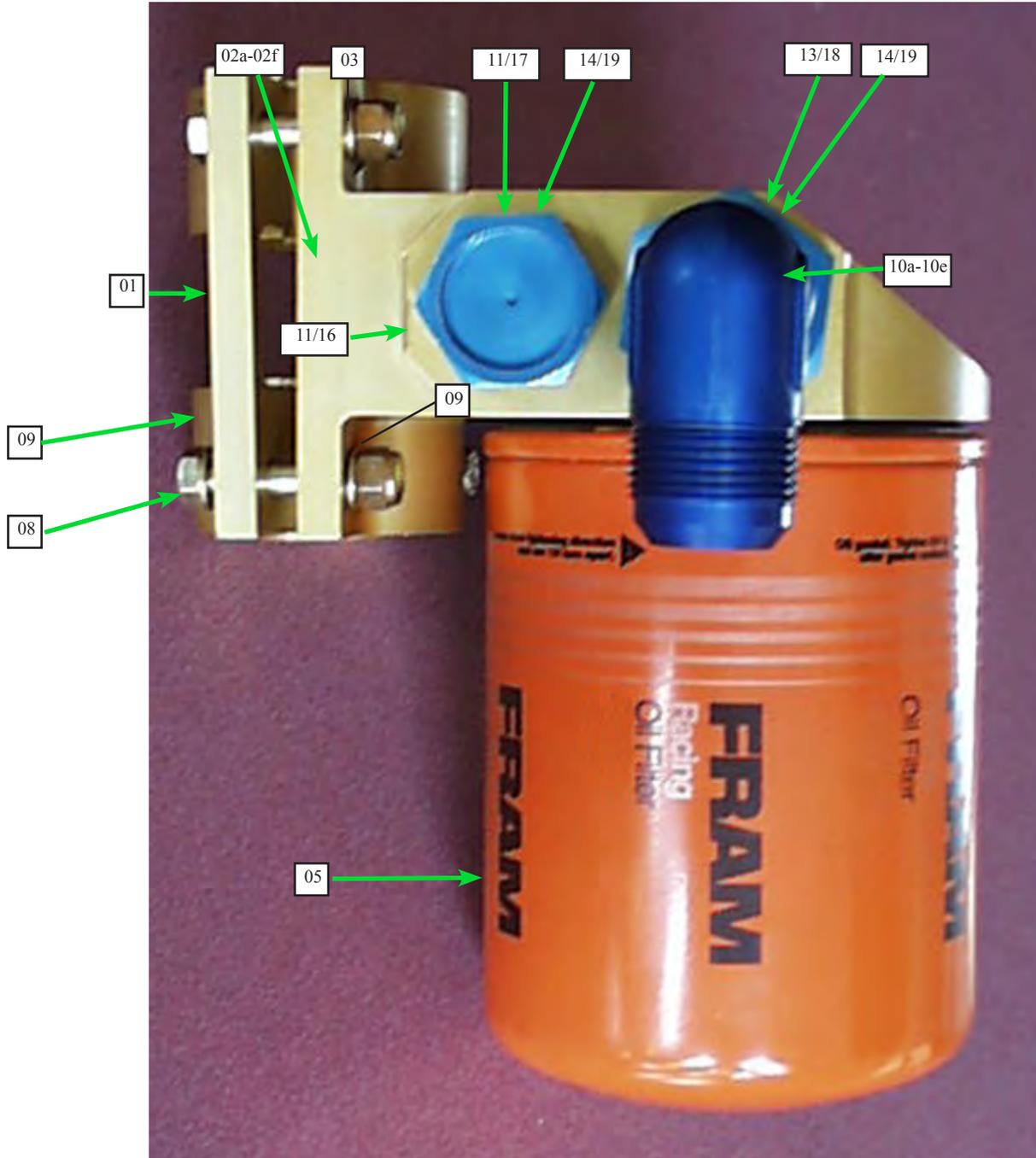
DO NOT INSTALL DRY FITTINGS INTO OIL FILTER BASE OTHERWISE GALLING OF MATERIAL WILL RESULT.

12. Connect hose from the outlet of the scavenge oil pump to the "IN" fitting on the oil filter base. If using MIL6000H hose secure with the provided hose clamps.

******* SEE WARNING C ABOVE *******

13. Connect hose from "OUT" fitting on the oil filter base to the inlet of the oil tank or oil cooler where applicable. If using MIL6000H hose secure with the provided hose clamps.
14. Tighten bulkhead nuts at this time.
NOTE: The entire sealing function occurs by lightly compressing the O-Ring. Once the Teflon boss gasket comes in contact with the O-Ring, 1/2 to 3/4 turn on the bulkhead nut is all that is needed. Do not overtighten bulkhead nut as it does not need to bottom out against the oil filter adapter.
15. Install appropriate O-Ring onto plug/bleeder and install into unused inlet/outlet holes, torque to specs and safety wire.
16. Install oil filter and tighten per filter manufacturers specifications.
 Using hose clamp provided, secure to top of oil filter and position so the worm gear drive of the clamp, is wedged into the main oil filter base, preventing the oil filter from loosening. It is also permissible to affix the hose clamp to the bottom of the oil filter, and safety wire the hose clamp to one of the fittings installed into the oil filter base.
17. Safety wire drain plug and refill oil tank with oil. (If step #2 is omitted this step is not necessary).
18. Run engine and check for leaks.
19. Determine weight and balance, initiate 337 form, and update the equipment list.

INSTALLATION DRAWING# AFC-D-0050



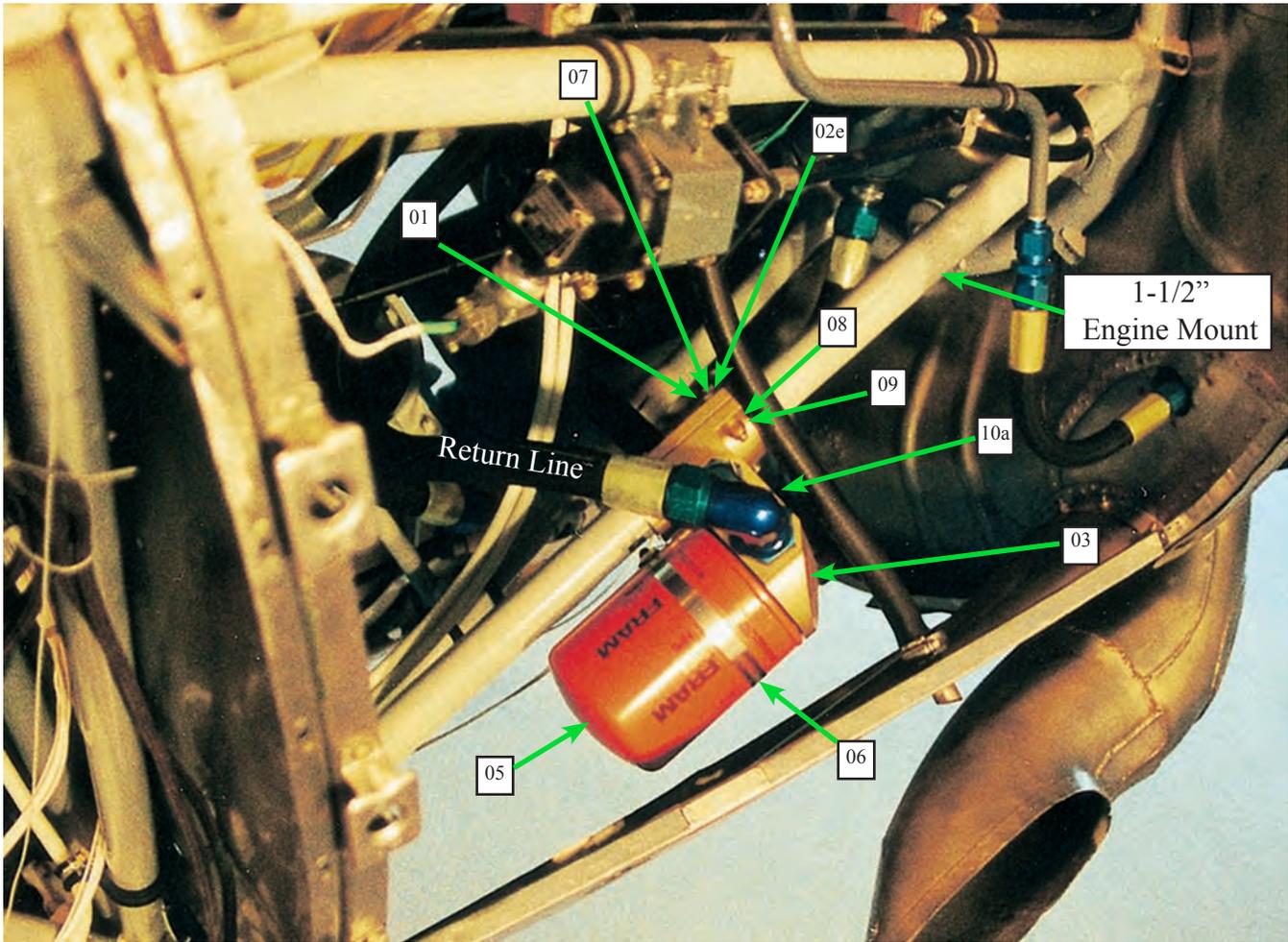
**TYPICAL
ENGINE MOUNT INSTALLATION**

Airwolf Filter Corp.

Installation Drawing.
OFB-18 Oil Filter Adapter, Engine Tube

	Drawing# AFC-D-0050	

INSTALLATION DRAWING# AFC-D-0053



Typical Radial Engine Installation
Shown Mounted on T-6 Texan

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	OFB-18-12	Clamp Plate Oil Filter Base	(1)
02e.	OFB-18-17	1.500" Bushing Set	(1)
03.	OFB-18-11	Adapter Body Oil Filter Base	(1)
05.	AFC-700	Oil Filter	(1)
06.	QS100M76H	5-1/2" Hose Clamp Safety Wire Attachment	(1)
07.	AN5-13A	5/16" Bolt, 1-3/8" Long	(4)
08.	AN960-516	5/16" Flat Washer	(8)
09.	MS20365-516	5/16" Locknut	(4)
10a.	AN833-16D	90° Bulkhead Fitting	(2)

Airwolf Filter Corp.

Installation Drawing.
 OFB-18 Oil Filter Adapter, Engine Tube

Revisions

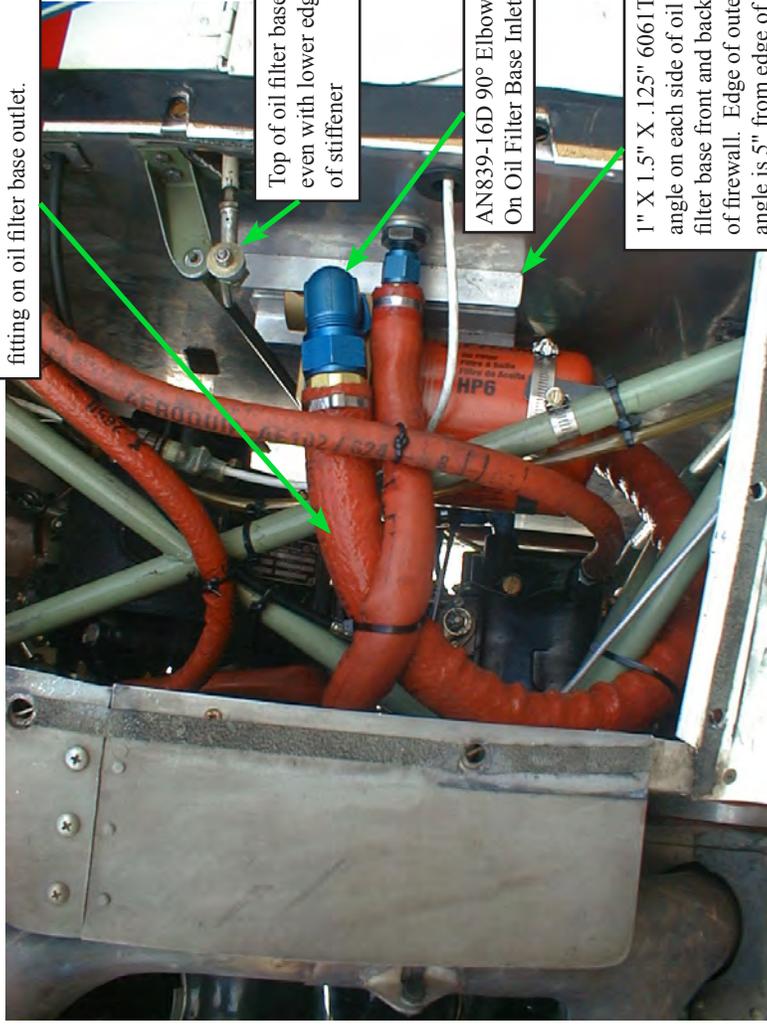
LH VIEW

1" MIL-H-6000 hose with AE102-22 Firesleeve, secured to AN839-16D 90° fitting on oil filter base outlet.

Top of oil filter base even with lower edge of stiffener

AN839-16D 90° Elbow On Oil Filter Base Inlet

1" X 1.5" X .125" 6061T6 angle on each side of oil filter base front and back of firewall. Edge of outer angle is 5" from edge of firewall.



Oil Filter Base mounted 18.5" Forward of Datum, which is wing leading edge.

Airwolf Filter Corp.

Typical Installation in Weatherly

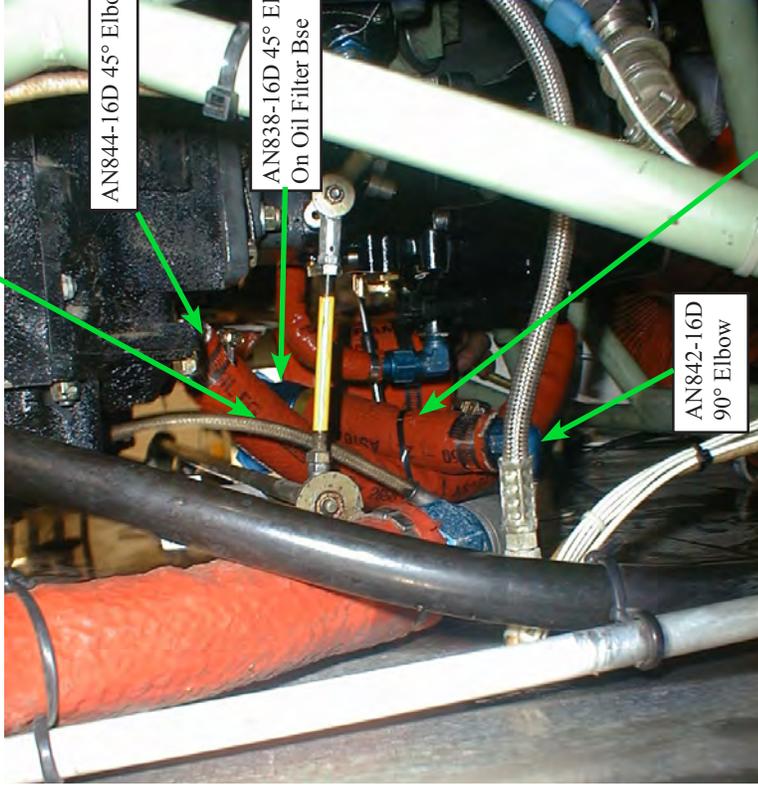
RH VIEW

1" MIL-H-6000 hose with AE102-22 Firesleeve from Engine to Oil Filter Base Inlet.

AN844-16D 45° Elbow

AN838-16D 45° Elbow On Oil Filter Base

AN842-16D 90° Elbow



1" MIL-H-6000 hose with AE102-22 Firesleeve, secured to AN838-16D fitting on oil filter base outlet. Hose Clamped end goes to oil cooler.

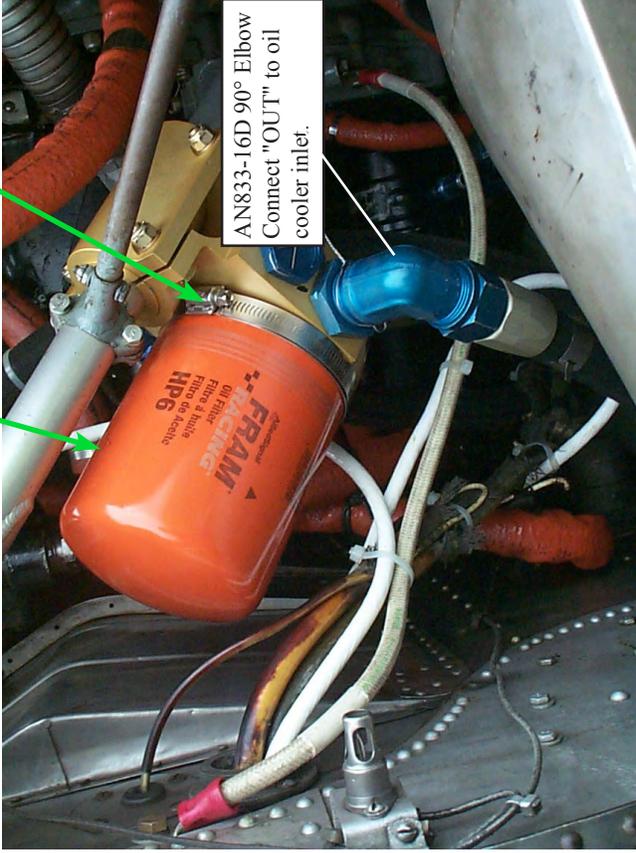
INSTALLATION DRAWING# AFC-D-0055

Revisions

LH ENGINE

AFC-700 Oil Filter

QS100M52H Clamp
Safety wire to bolt



OFB-18-16
1.375" Bushing Set

AN833-16D 90° Fitting Connecting
Hose from scavenge oil pump to "IN"
on oil filter base

Secure with Bolts (07),
Nuts (08), and Washers
(09) provided

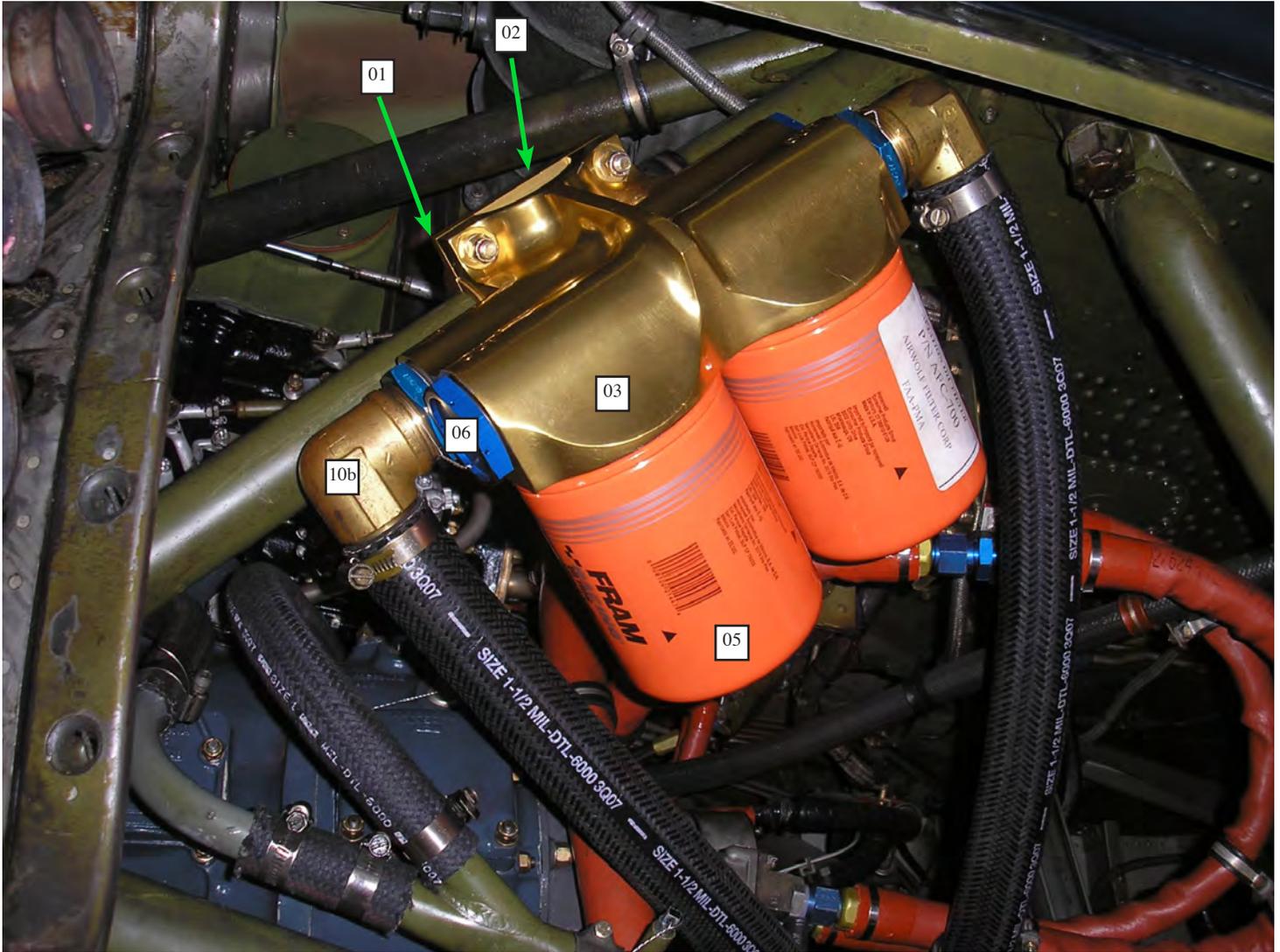


Airwolf Filter Corp.

Typical Installation in Douglas DC-3 / C-47

INSTALLATION DRAWING# AFC-D-0056

INSTALLATION DRAWING# AFC-D-0057



Typical Radial Engine Installation on P&W R2800 Shown Mounted on Grumman F7F-3 Tigercat

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	OFB-19-12	Clamp Plate Oil Filter Base	(1)
02e.	OFB-19-17	1.500" Bushing Set	(1)
03.	OFB-19-11	Adapter Body Oil Filter Base	(1)
05.	AFC-700	Oil Filter	(2)
06.	AN814-24DL	Cap	(2)
07.	AN6-17A	3/8" Bolt, 1-7/8" Long	(4)
08.	AN960-616	3/8" Flat Washer	(8)
09.	MS20365-624A	3/8" Locknut	(4)
10a.	AN833-24D or	90° Bulkhead Flare Fitting,	(2)
10b.	AN838-24D	90° Bulkhead Slip-On Fitting,	(2)

Airwolf Filter Corp.

Installation Drawing.
OFB-19 Oil Filter Adapter, Engine Tube



Reference Data
for
AFC-K015
for
STC SA01282NY
Oil Filter Kit
AFC-K015

Dated: 10/17/2022

Airwolf Filter, Corp
12801 Hwy. 75 N.
OKMULGEE, OK 74447
(918) 561-8696 Ph
(918) 561-8695 Fx

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READ THIS BEFORE INSTALLING OIL FILTER KITS, DATA PERTINENT TO ALL INSTALLATIONS

TO THE MECHANIC:

This P/N AFC-K015 remote mount oil filter kit incorporates our STC approved for all Pratt & Whitney powered aircraft. The STC paperwork provided with this kit utilizes the approved model list (AML) system instituted by the FAA.

Upon installing this filter kit, you will need to fill out and file a 337 form for this installation referencing the P/N AFC-K015 kit and the STC# SA01282NY. If your aircraft is not listed on the AML, you will also need a field approval by your local FSDO for this installation. This is necessary until your aircraft is listed, a field approval is required. If you are unsure whether you need a field approval, please call us directly.

If you have any questions or concerns on this STC, please call Airwolf Filter Corp, which we will clarify the details. Personnel are very familiar with our filter kits and can address any concerns you may have on your installation.

Airwolf Filter Corp
12801 Hwy 75 N.
Okmulgee, OK 74447
Phone: (918) 561-8696
Fax: (918) 561-8695

After completion of the installation of this kit, place a copy of the instructions along with the ICA in the Aircraft records for maintenance and replacement parts identification.

DATA PERTINENT TO ALL INSTALLATIONS

Prior to installing the filter kit on the aircraft, weigh the filter kit, add the weight of the hoses, and subtract the oil screen or oil filter adapter removed from the engine, and determine the net weight being added to the aircraft for determining the weight and balance of the aircraft later. Once the filter kit is installed on the aircraft, if you choose to purchase the hoses from Airwolf, we will supply you with the Hoses specified in this STC. At the time of the order, we will need the flare-to-flare length of the hoses, and hose ends needed on each hose i.e.: Straight to Straight, Straight to 90°, Straight to 45°, etc. allowing for engine torque and vibration per AC43.13.

If our instructions do not specifically say you can do something, assume that means you are not allowed to do it without our written approval

1. Review all installation data and written material before beginning
2. Please inspect contents of kit and inventory components before beginning.
3. **Do not** over tighten the fittings on Adapters or housings. This can distort or crack housings, causing oil to leak.
4. It is **EXTREMELY** important that oil lines be routed properly in accordance with AC 43.13-1A & 2A Acceptable Methods and Practices. (see Tip below)
5. See Warnings and Notes contained in the instructions concerning routing of lines and the use of sealant on NPT fittings.

DO NOT USE TEFLON TAPE ON FITTINGS.

6. The use of sealant on AN/Flared type fittings is not required, it is only required on NPT fittings.
7. When mounting Adapters use the supplied doublers for reinforcing mounting locations.
8. **BE PATIENT!!!** Take your time and you will see the results of your effort.

TIP

How to get correct length of hose

Hose length is measured from flare to flare. Do not use a string or a tape measure but take a section of old garden hose. Touch one end of the garden hose to the tip of one fitting and touch the other end of the hose to the other fitting, that is the correct length of hose needed. The garden hose is trying to bend to its natural set, which is normally the extra length needed for engine torque and vibration per AC43.13. Also, if you kink a garden hose, you are obviously going to kink an aircraft hose. Doing it this way allows you to snake a hose across the back of an engine and around obstacles and this will replicate exactly how the aircraft hose will fit.

Thank you for taking the time to read this.

WARNINGS & NOTES

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

USE LOCTITE® BRAND 567 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 (INCLUDING ACCESSORIES)

******* WARNING (C) *******

THE USE OF PARTS AND COMPONENTS NOT INCLUDED IN THE KIT, IS NOT COVERED BY THE STC APPROVAL. ALWAYS REMEMBER THAT THE DIRTY OIL FROM THE ENGINE ENTERS THE OIL FILTER FROM THE OUTSIDE OF THE FILTER. THE CLEAN OIL EXITS THROUGH THE LARGE HOLE IN THE CENTER OF THE OIL FILTER AND RETURNS TO THE ENGINE.

******* WARNING (D) *******

DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT AN OIL COOLER THAT DOES NOT HAVE A THERMOSTATIC CONTROL VALVE, IN SERIES WITH OUR REMOTE MOUNT OIL FILTER KIT. OUR FILTER KIT IS A "FULL FLOW" OIL FILTERING SYSTEM WHICH MEANS ALL OF THE OIL IS FILTERED ALL OF THE TIME. DURING STARTUP ON A COLD DAY, THE COLD THICK OIL WILL PARTIALLY BYPASS A CH48108 OR CH48109 OIL FILTER UNTIL THE VISCOSITY DROPS AND THE THIN OIL CAN FLOW THROUGH THE FILTER MEDIA THEREBY ALLOWING OIL TO CIRCULATE IN THE ENGINE. IF AN OIL COOLER HAS NO THERMOSTATIC BYPASS BUILT INTO THE UNIT, WHEN THE OIL FILTER GOES INTO PARTIAL BYPASS, THIS THICK SLUG OF OIL WILL BE STOPPED, OR SEVERELY RESTRICTED AT THE OIL COOLER. ONE OF THREE THINGS WILL HAPPEN:

- 1. THE OIL COOLER WILL SEPARATE IN HALF.**
- 2. THE OIL FILTER GASKET WILL FAIL AND/OR THE OIL FILTER WILL EXPLODE.**
- 3. THE OIL HOSE WILL FAIL**

ANY OF THE THREE SCENARIOS ABOVE WILL CAUSE COMPLETE LOSS OF OIL IN A SHORT PERIOD OF TIME.

NOTE.

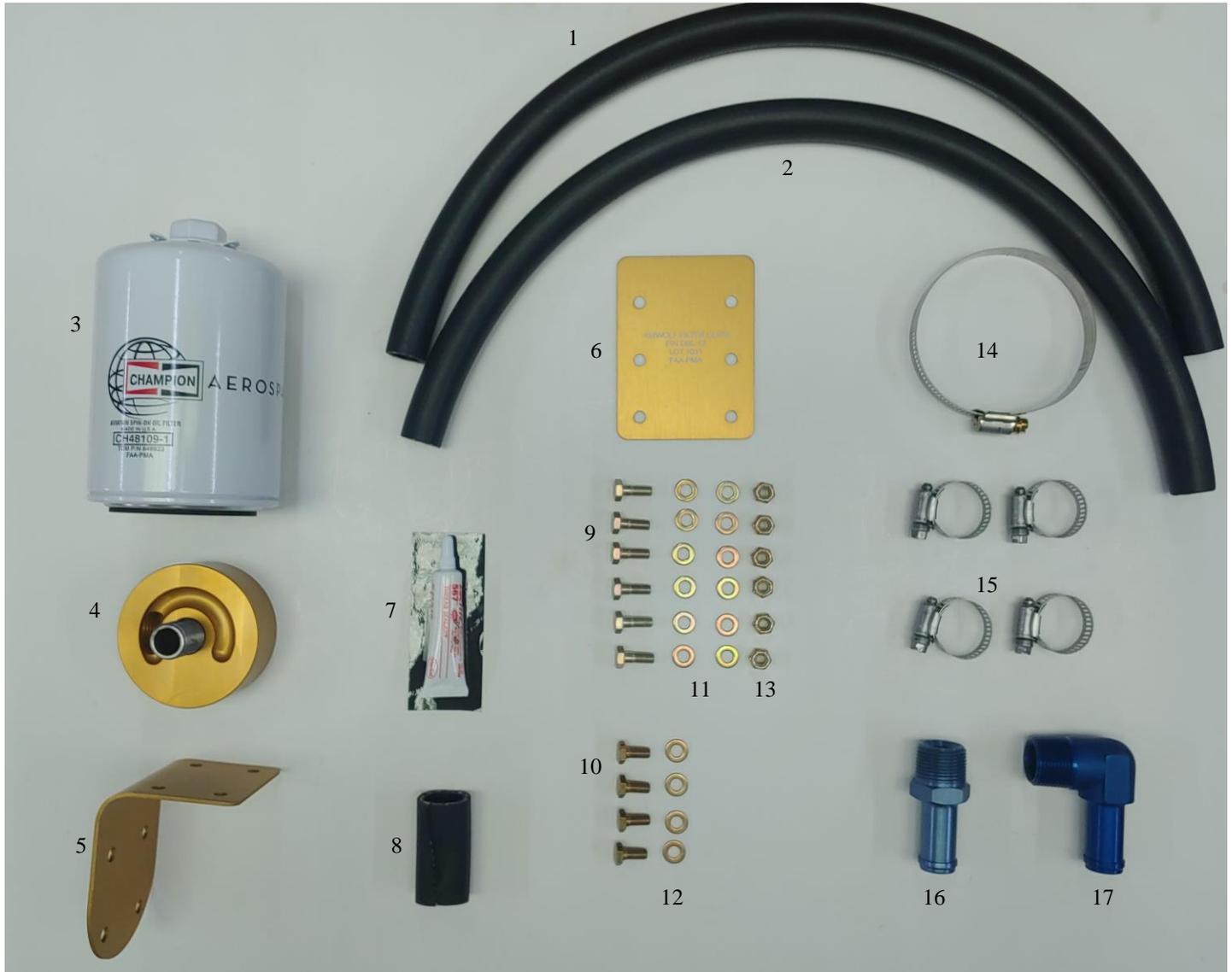
COMMON TO ALL INSTALLATIONS

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.

Illustrated Parts List No. AFC-K015-PL-A

Applicability:

**Pratt & Whitney R-985 Powered Aircraft
having firewalls of .021" ASTM A527 galvanized steel or equivalent.**



Parts Illustration Pratt & Whitney R-985 Engine Series

Parts List No. AFC-K015-PL-A

Applicability: Pratt & Whitney R-985 Powered Aircraft
having firewalls of .021" ASTM A527 galvanized steel or equivalent.

Index	Part Number	Description	Quantity
1	MIL6000-3/4	Hose ¾" ID	24
2	MIL6000-3/4	Hose ¾" ID	24
3	AFC-500 or AFC-600	Oil Filter, or Equivalent [Champion CH48108/CH48109]	1
4	OFB-15	Oil Filter Base, -12 Ports, (with OFS-10 Installed)	1
5	OFM-11	Oil Filter Mount Plate - 90°	1
6	DBL-10	Plate, Doubler	1
7	567	Loctite Thread Sealant	1
8	MIL6000-3/4-2	Dampener, Vibration	1
9	AN4-5A	Bolt	6
10	AN4H-4A	Bolt	4
11	AN960-416	Flat Washer	12
12	AN960-416	Flat Washer	4
13	MS20365-428A	Locknut	6
14	QS100M52H	Clamp	1
15	QS100M12H	Clamp	4
16	AN840-12D	Fitting, NPT-Hose, Straight	1
NS	AN840-16D	Fitting, NPT-Hose, Straight	opt
17	AN842-12D	Fitting, NPT-Hose, 90°	1
NS	AN842-16D	Fitting, NPT-Hose, 90°	opt
NS	AN844-12D	Fitting, NPT-Hose, 45°	1
NS	AN844-16D	Fitting, NPT-Hose, 45°	opt

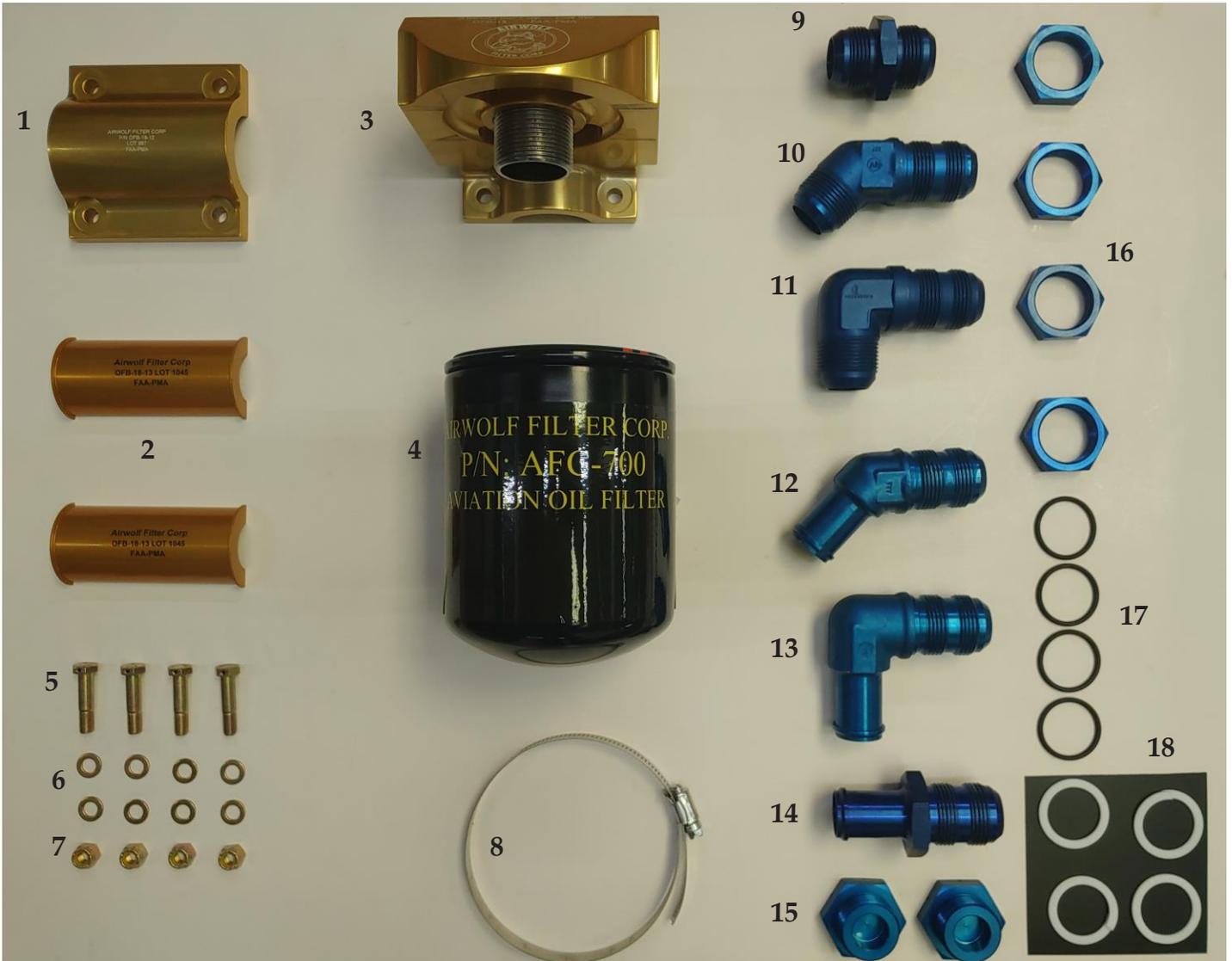
Installation Instructions No. AFC-K015-II-A**Applicability: Installation of the remote oil filter kit on Boeing Model 75 series aircraft with Pratt & Whitney R-985 Radial Engine.**

1. Remove left engine cowl (top and door) and bottom engine cowl.
2. Drain oil (optional).
3. Remove engine oil return line P/N A75N1-3004 (note this may be a length of 1" Mil 6000 hose). This line runs from the engine to the oil cooler / tank.
4. Remove the screw that goes through the end of the firewall stiffener P/N 75-2912. This is located on the left side of the firewall on the aft side. Loosen the screw that goes through the firewall stiffener and the tab welded on the fuselage. This screw is 4-5/16" inboard of the removed screw. (see attached drawing AFC-D-0019). Drill the hole of the removed screw to 1/4" (.250).
5. Measure 3-9/16" out from a vertical line drawn from the C/L of the left engine mount studs. Using doubler plate P/N DBL-10 as a template drill the other 5 holes 1/4" (.250). The previously drilled hole is the middle outboard hole.
6. Slip doubler plate (DBL-10) between the firewall and stiffeners. The long side goes up (see attached drawing AFC-D-0064).
7. Bolt oil filter base support angle P/N OFM-11 to firewall and doubler plate using(6ea) provided AN 4-5A bolts.
- ***** SEE WARNING (A) *******
8. Install provided AN842-16D fittings in the oil filter base. The fitting in port B points horizontal with the filter base. The other points over the first fitting.
9. Bolt oil filter base (OFB-15) to oil Filter Mount Plate, Vertical (5) using provided AN4H-4A bolts. Oil inlet port "B" is positioned to the front of the aircraft. Secure bolts with safety wire.
- ***** SEE WARNING (B) *******
10. Install one 25" piece of 1" Mil 6000H hose using provided QS100M16H hose clamps. The "B" port is the oil inlet and goes to the oil out of the Engine. The "A" port is the oil outlet, and it goes to the oil cooler / tank. Tighten clamps.
11. Install oil filter as per manufacturers specifications and safety wire.
12. Using the 2" piece of 3/4" Mil 6000 hose provided, secure to bottom of oil filter with (1) QS100M52W 3-3/4" clamp, locate between bottom of oil filter and existing firewall. This will strengthen the oil filter mount and dampen the vibrations of the engine.
13. Safety wire drain and refill oil tank with oil. (If step #2 is omitted this step is not necessary).
14. Run engine and check for leaks.
15. Determine weight and balance, initiate 337 form, and update the equipment list.

Illustrated Parts List No. AFC-K015-PL-B

Applicability:

**Pratt & Whitney R-985 - R-2000 Powered Aircraft
having firewalls of .021" ASTM A527 galvanized steel or equivalent.**



Parts Illustration Pratt & Whitney Engine Series

Parts List No. AFC-K015-PL-B**Applicability:**

**Pratt & Whitney R-985 - R-2000 Powered Aircraft
having firewalls of .021" ASTM A527 galvanized steel or equivalent.**

Index	Part Number	Description	Quantity
1	OFB-18-12 or	Plate, Clamp Oil Filter Base	1
1	OFB-20-12	Plate, Clamp Oil Filter Base	1
2	OFB-18-13 or	Bushing Set, 1.000"	1
2	OFB-20-13	Bushing Set, 1.000"	1
2	OFB-18-14 or	Bushing Set, 1.125"	Opt
2	OFB-20-14	Bushing Set, 1.125"	Opt
2	OFB-18-15 ro	Bushing Set, 1.250"	Opt
2	OFB-20-15	Bushing Set, 1.250"	Opt
2	OFB-18-16 or	Bushing Set, 1.375"	Opt
2	OFB-20-16	Bushing Set, 1.375"	Opt
2	OFB-18-17 or	Bushing Set, 1.500"	Opt
2	OFB-20-17	Bushing Set, 1.500"	Opt
2	OFB-18-18 or	Bushing Set, 1.625"	Opt
2	OFB-20-18	Bushing Set, 1.625"	Opt
3	OFB-18-11 or	Adapter Body, Oil Filter Base (with OFS-12 Installed)	1
3	OFB-20-11	Adapter Body, Oil Filter Base (with OFS-12 Installed)	1
4	AFC-700	Oil Filter	1
5	AN5H-13A	Bolt, 5/16" 1-1/4"Long	4
6	AN960-516	Washer, Flat	8
7	MS20365-516	Nut, Locking 5/16	4
8	QS100M76H	Clamp, Screw 5-1/2"	1
9	AN815-16D	Fitting, Union	1
9	AN815-20D	Fitting, Union	1
10	AN837-16D	Fitting, Bulkhead to Flare 45°	1
10	AN837-20D	Fitting, Bulkhead to Flare 45°	1
11	AN833-16D	Fitting, Bulkhead to Flare 90°	1
11	AN833-20D	Fitting, Bulkhead to Flare 90°	1
12	AN839-16D	Fitting, Bulkhead to Hose 45°	1
12	AN839-20D	Fitting, Bulkhead to Hose 45°	1
13	AN838-16D	Fitting, Bulkhead to Hose 90°	1
13	AN838-20D	Fitting, Bulkhead to Hose 90°	1
14	AN807-16D	Fitting, Bulkhead to Hose Straight	1
14	AN807-20D	Fitting, Bulkhead to Hose Straight	1
15	AN814-16D	Plug	2
15	AN814-20D	Plug	2
16	AN6289-16D	Nut, Bulkhead	2
16	AN6289-20D	Nut, Bulkhead	2
17	M83248/1-916	O-Ring, Viton	4
17	M83248/1-920	O-Ring, Viton	4
18	MS28773-16	Boss Gasket, Teflon	2
18	MS28773-20	Boss Gasket, Teflon	2

Installation Instructions No. AFC-K015-II-B

Applicability: Installation of the remote oil filter kit on DeHavilland DHC-2 Beaver series aircraft with Pratt & Whitney R-985 Radial Engine having firewalls of .021" ASTM A527 galvanized steel or equivalent.

1. Remove engine cowling as needed to gain access to engine, oil cooler and oil tank.
2. Drain engine oil and tank (optional).
3. Remove engine scavenge oil return line. This line routes from the engine to the oil cooler.

TIP: You always want to filter oil at its hottest point, and in front of the oil cooler. The hotter the oil is, the more it is willing to get rid of dirt and contaminants, and it keeps the oil cooler from becoming a trash collector. Therefore, the oil filter should always be installed ahead of the oil cooler.

4. Per installation drawings AFC-D-0045 and AFC-D-0054, locate the lower RH footwell, and drill and install DBL-14 doubler plate to cabin side of firewall, and secure with (28ea.) MS20613-4C4 Stainless Steel Rivets provided.
5. Using bolts (5), washers (6), and locknuts (7) supplied, secure oil filter base (3) to doubler plate, install rear clamp plate (1) to inside of footwell, and torque to 100-140 in/lbs.

Note: When done correctly, the firewall and doubler will be sandwiched between the oil filter base (3) and oil filter clamp plate (1).

6. Onto each bulkhead fitting (10-14), install in order 1 ea. bulkhead nut (16), boss gasket (18), and O-Ring (17).

CAUTION: O-ring (17) and boss gasket (18) **must** seal and be positioned in the center, smooth, non-threaded area of the bulkhead fitting. If this is not done, when you tighten down the blue bulkhead nut (16), you will force the O-Ring (17) against the end of the first set of threads on the bulkhead fitting, cutting the O-Ring, and mushrooming out the Teflon Boss gasket (18) like a large "C" causing a small oil leak.

******* WARNING *******

DO NOT INSTALL DRY FITTINGS INTO OIL FILTER BASE OTHERWISE GALLING WILL RESULT

7. Lightly oil assembled bulkhead fittings and install into appropriate inlet/outlet holes of oil filter base (3) but do not tighten at this time.
- ***** SEE WARNING (B) *******
8. Install and connect the -16 hose from the outlet of the scavenge oil pump (Oil out of Engine) to the "IN" fitting on the oil filter base (3).
 9. Install and connect the -16 hose from "OUT" fitting on the oil filter base (3) to the inlet of the oil cooler.
 10. Torque hose ends to specs at this time.
 11. Tighten bulkhead nuts at this time.

NOTE: The entire sealing function occurs by lightly compressing the O-Ring. Once the Teflon boss gasket (18) comes in contact with the O-Ring (17), 1/4 to 1/2 turn on the bulkhead nut (16) is all that is needed. Do not overtighten bulkhead nut as it does not need to bottom out against the oil filter adapter (3).

12. Install appropriate O-Ring (17) onto plug/bleeder (15) and install into unused inlet/outlet holes, torque to specs and safety wire.
13. Install oil filter (4) and tighten per filter manufacturers specifications
14. Using hose clamp (8) provided, secure to bottom to oil filter to provided attachment vehicle for safety wiring of oil filter
15. Safety wire drain plug and refill oil tank with oil. (If step #2 is omitted this step is not necessary).
16. Run engine and check for leaks.
17. Determine weight and balance, initiate 337 form, and update the equipment list.

Illustrated Parts List No. AFC-K015-PL-C

Applicability:

**Pratt & Whitney R-2800 Powered Aircraft
having firewalls of .021" ASTM A527 galvanized steel or equivalent.**



Parts Illustration OFB-19 Oil Filter Adapter

Parts List No. AFC-K015-PL-C

Applicability: Pratt & Whitney R-2800 Powered Aircraft
having firewalls of .021" ASTM A527 galvanized steel or equivalent.

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
1	OFB-19-11	Adapter Body, Oil Filter Base (with OFS-12 Installed)	1
2	OFB-19-12	Plate, Clamp Oil Filter Base	1
3	AN5H-13A	Bolt, 5/16" 1-1/4" Long	4
4	AN960-516	Washer, Flat	8
5	MS20365-516	Nut, Locking 5/16	4
6	AFC-700	Oil Filter	2
7	OFB-19-13	Bushing Set, 1.500"	1
7	OFB-19-14	Bushing Set, 1.625"	opt
7	OFB-19-15	Bushing Set, 1.750"	opt
7	OFB-19-16	Bushing Set, 1.875"	opt
7	OFB-19-17	Bushing Set, 2.000"	opt
7	OFB-19-18	Bushing Set, 2.125"	opt
7	OFB-19-19	Bushing Set, 2.250"	opt
7	OFB-19-20	Bushing Set, 2.375"	opt
8	QS100M76H	Clamp, Screw 5-1/2"	2
9	AN833-24D	Fitting, Bulkhead to Flare 90°	1
10	AN815-24D	Fitting, Union	1
NS	AN837-24D	Fitting, Bulkhead to Flare 45°	1
11	AN6289-24D	Nut, Bulkhead	2
12	AN814-24D	Plug	2
13	MS28773-24	Boss Gasket, Teflon	2
14	M83248/1-924	O-Ring, Viton	4

Installation Instructions No. AFC-K015-II-C**Applicability: Installation of the remote oil filter kit on aircraft with Pratt & Whitney Radial Engines having firewalls of .021" ASTM A527 galvanized steel or equivalent.**

1. Remove engine cowling as needed to gain access to engine, oil cooler and oil tank.
2. Drain engine oil and tank (optional).
3. Remove engine scavenge oil return line. This line routes from the engine to the oil cooler.

TIP: You always want to filter oil at its hottest point, and in front of the oil cooler. The hotter the oil is, the more it is willing to get rid of dirt and contaminants, and it keeps the oil cooler from becoming a trash collector. Therefore, the oil filter should always be installed ahead of the oil cooler.

4. Per the following installation drawings AFC-D-0055, AFC-D-0056, AFC-D-0057, AFC-D-0060, AFC-D-0062, and AFC-D-0065. Determine the best location for the Oil filter Adapter to be mounted Engine Mount Tube or Firewall as per applicable aircraft.
5. Using bolts (3), washers (4), and locknuts (5) supplied, secure oil filter base (1) to firewall or Engine Mount tube, and torque to 100-140 in/lbs.
6. Onto each bulkhead fitting (9-10), install in order 1 ea. bulkhead nut (11), boss gasket (13), and O-Ring (14).

CAUTION: O-ring (14) and boss gasket (13) must seal and be positioned in the center, smooth, non-threaded area of the bulkhead fitting. If this is not done, when you tighten down the blue bulkhead nut (11), you will force the O-Ring (14) against the end of the first set of threads on the bulkhead fitting, cutting the O-Ring, and mushrooming out the Teflon Boss gasket (13) like a large "C" causing a small oil leak.

******* WARNING *******

DO NOT INSTALL DRY FITTINGS INTO OIL FILTER BASE OTHERWISE GALLING WILL RESULT

7. Lightly oil assembled bulkhead fittings and install into appropriate inlet/outlet holes of oil filter base (1) but do not tighten at this time.

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

8. Install and connect the hose from the outlet of the scavenge oil pump (Oil out of Engine) to the "IN" fitting on the oil filter base (1).
9. Install and connect the hose from "OUT" fitting on the oil filter base (1) to the inlet of the oil cooler.
10. Torque hose ends to specs at this time.
11. Tighten bulkhead nuts at this time.

NOTE: The entire sealing function occurs by lightly compressing the O-Ring. Once the Teflon boss gasket (13) comes in contact with the O-Ring (14), 1/4 to 1/2 turn on the bulkhead nut (11) is all that is needed. Do not overtighten bulkhead nut as it does not need to bottom out against the oil filter adapter (1).

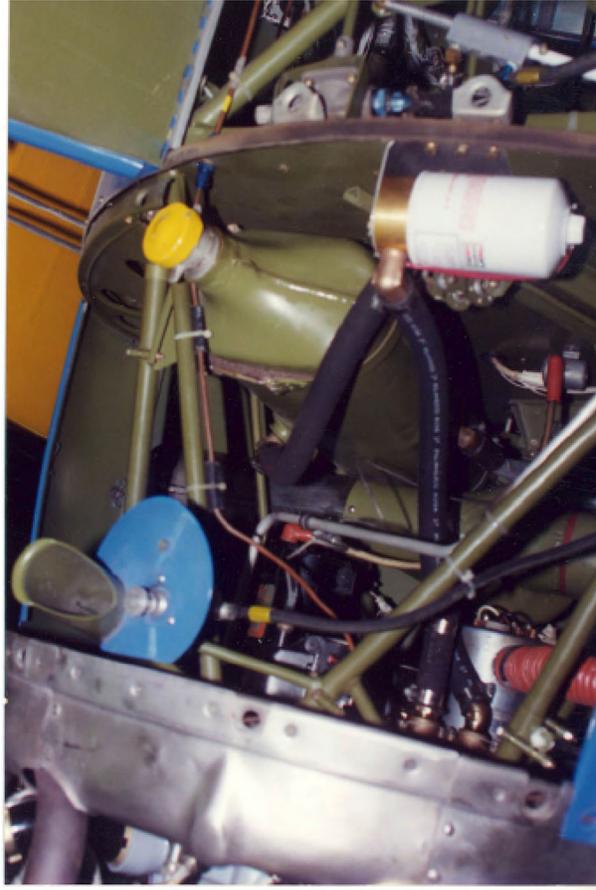
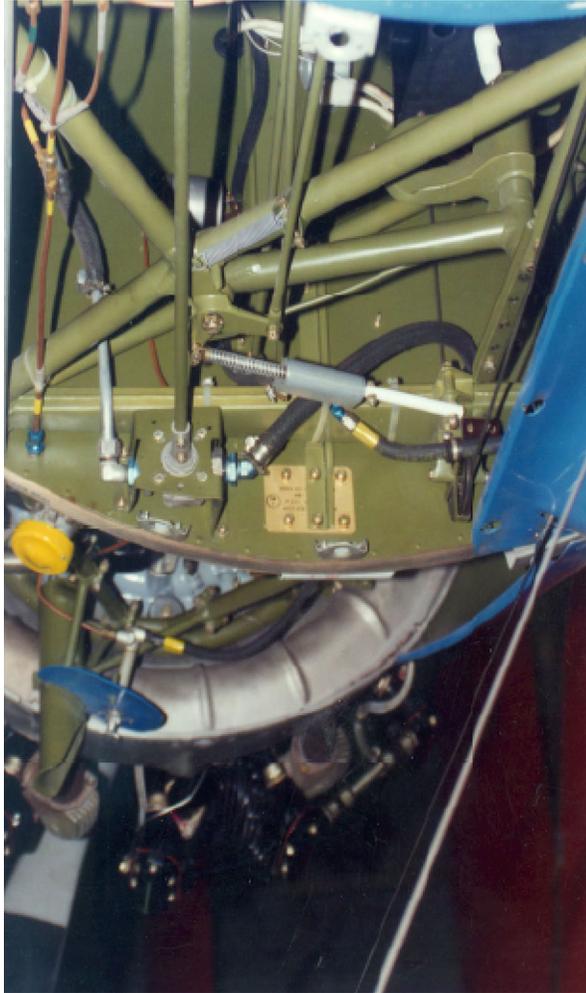
12. Install appropriate O-Ring (14) onto plug/bleeder (15) and install into unused inlet/outlet holes, torque to specs and safety wire.
13. Install oil filter (6) and tighten per filter manufacturers specifications
14. Using hose clamps (8) provided, secure to bottom of oil filters to provided attachment vehicle for safety wiring of oil filters.
15. Safety wire drain plug and refill oil tank with oil. (If step #2 is omitted this step is not necessary).
16. Run engine and check for leaks.
17. Determine weight and balance, initiate 337 form, and update the equipment list.

WEIGHT AND BALANCE REPORT

SURPLUS EQUIPMENT	WEIGHT	ARM-INCHES		MOMENT - IN/LBS.	
EQUIPMENT - ITEM	LBS.	LONG		LONG	
REMOTE OIL FILTER					

AIRWOLF FILTER CORP PROPRIETARY

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REVISIONS		
REV.	DESCRIPTION	DATE

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		DRAWN	GM	NAME	DATE	Airwolf Filter Corp.	
1 PLACE ±.030		APPR. BY	BDA		12/8/2020	TITLE: BOEING STEARMAN, OFM-15, Oil Filter Mount Plate	
2 PLACE ±.010		ENG APPR.				SIZE	DWG. NO.
3 PLACE ±.005		MFG APPR.				A	AFC-D-0019
4 PLACE ±.0005		Q.A.				REV	IR
ANGULAR ±0°30'						SCALE:	WEIGHT:
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H							SHEET 1 OF 1
MATERIAL		COMMENTS:					
FINISH		USED ON					
NEXT ASSY		APPLICATION					

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GROUP ASSEMBLY PART LIST
PART 2

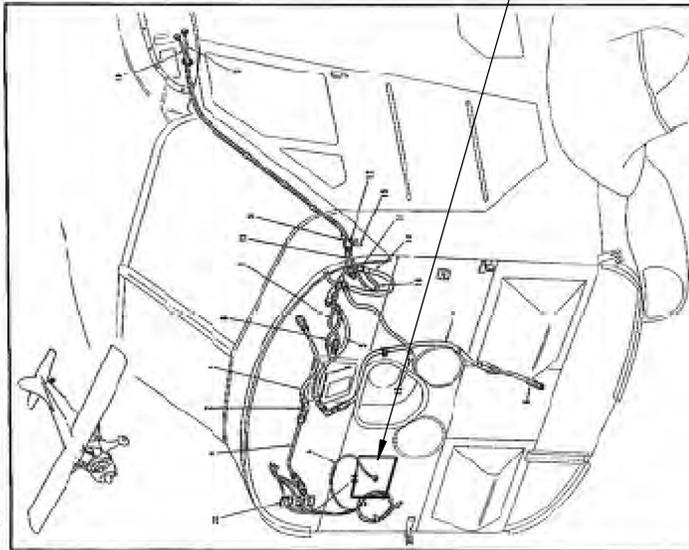


Figure 34 Pigtails And Wiring - Instrument panel

147



ADDITIONAL DOUBLER FIELD MADE FROM .090
6061-T6 VIEWED FROM BACKSIDE OF FIREWALL



ALTERNATE ACCEPTABLE MOUNTING LOCATION FOR
AIRCRAFT WITH MILITARY STYLE EXHAUST SYSTEMS.

REVISIONS		
REV.	DESCRIPTION	DATE

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		DRAWN	NAME	DATE	Airwolf Filter Corp.
1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'		APPR. BY	GM	12/18/2020	
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H		MFG APPR.	BDA	12/18/2020	TITLE: INSTALLATION DRAWING DBL-14 BEAVER DOUBLER PLATE
MATERIAL		Q.A.			SIZE DWG. NO. REV A AFC-D-0045 IR
FINISH		COMMENTS:			SCALE: WEIGHT: SHEET 1 OF 1
NEXT ASSY	USED ON				
APPLICATION					

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GROUP ASSEMBLY PART LIST
PART 2

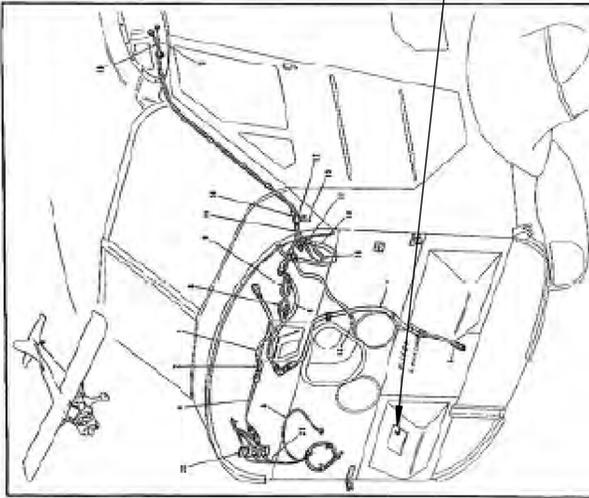
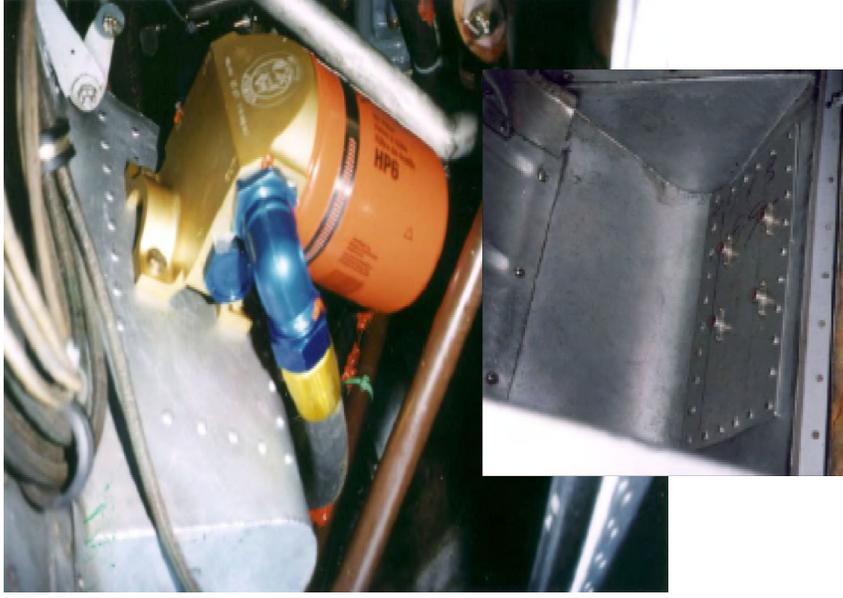
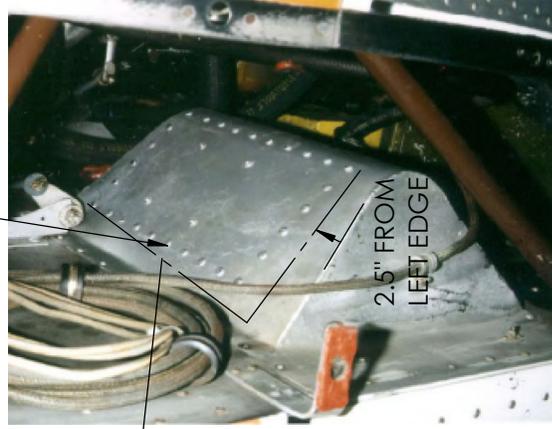


Figure 34: Racks And Wiring - Instrument Panel

1.25" FROM TOP EDGE

2.5" FROM LEFT EDGE



VIEW FROM INSIDE RH FOOTWELL P/N C2E502A

REVISIONS		
REV.	DESCRIPTION	DATE
A	REDRAWN IN SOLIDWORKS	12/8/2020

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'		NAME GM	DATE 12/8/2020	Airwolf Filter Corp.	
DRAWN		GM	12/8/2020	TITLE: INSTALLATION DRAWING, DBL-14 BEAVER DOUBLER PLATE	
APPR. BY		BDA	12/8/2020	SIZE	DWG. NO.
ENG APPR.				A	AFC-D-0054
MFG APPR.				REV	A
Q.A.				SCALE:	WEIGHT:
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H		COMMENTS:		SHEET 1 OF 1	
MATERIAL		FINISH		1	
USED ON		APPLICATION		2	
NEXT ASSY		APPLICATION		3	
APPLICATION		APPLICATION		4	
APPLICATION		APPLICATION		5	

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REVISIONS

REV.	DESCRIPTION	BY	DATE
A	REDRAWN IN SOLIDWORKS	GM	12/8/2020

RH VIEW

AN844-16D 45° ELBOW

1" MIL-H-6000 HOSE WITH AE102-22 FIRESLEEVE FROM ENGINE TO OIL FILTER BASE INLET.

AN838-16D 45° ELBOW ON OIL FILTER BASE

1" MIL-H-6000 HOSE WITH AE102-22 FIRESLEEVE. SECURED TO AN838-16D FITTING ON OIL FILTER BASE OUTLET. HOSE CLAMPED END GOES TO OIL COOLER.



AN842-16D 90° ELBOW

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		GM	12/8/2020
TOLERANCES:		BDA	12/8/2020
1 PLACE ±.030			
2 PLACE ±.010			
3 PLACE ±.005			
4 PLACE ±.0005			
ANGULAR ±0°30'			
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H			
MATERIAL			
FINISH	COMMENTS:		
NEXT ASSY	USED ON		
APPLICATION			

Airwolf Filter Corp.	
SIZE	DWG. NO.
A	AFC-D-0055
REV	REV
A	A
SCALE:	WEIGHT:
	SHEET 1 OF 1

TITLE:
TYPICAL INSTALLATION
IN WEATHERLY -
RIGHT HAND VIEW

5 4 3 2 1

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LH ENGINE

OFB-18-16 1.375" BUSHING SET



SECURE WITH BOLTS, NUTS, AND WASHERS PROVIDED

AN833-16D 90° FITTING CONNECTING HOSE FROM SCAVENGE OIL PUMP TO "IN" ON OIL FILTER BASE

AFC-700 OIL FILTER

QS100M52H CLAMP SAFETY WIRE TO BOLT



REVISIONS

REV.	DESCRIPTION	BY	DATE
A	REDRAWN IN SOLIDWORKS	GM	12/8/2020

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		GM	12/8/2020
TOLERANCES:		BDA	12/8/2020
1 PLACE ±.030			
2 PLACE ±.010			
3 PLACE ±.005			
4 PLACE ±.0005			
ANGULAR ±0°30'			
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H			
MATERIAL			
FINISH			
NEXT ASSY			
USED ON			
APPLICATION			

DRAWN		GM	12/8/2020
APPR. BY		BDA	12/8/2020
ENG APPR.			
MFG APPR.			
Q.A.			

TITLE:		TYPICAL INSTALLATION IN DOUGLAS DC-3/C-47	
SIZE	DWG. NO.	REV	
A	AFC-D-0056	A	

SCALE:	WEIGHT:	SHEET 1 OF 1
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① ——— ⑦ ⑧ ⑨



TYPICAL RADIAL ENGINE INSTALLATION SHOWN MOUNTED ON ENGINE MOUNT TUBE

MATERIAL LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	OFB-19-12	CLAMP PLATE OIL FILTER BASE	1
2e	OFB-19-17	1-.500" BUSHING SET	1
3	OFB-19-11	ADAPTER BODY OIL FILTER BASE	1
5	AFC-700	OIL FILTER	2
6	AN814-24DL	CAP	2
7	AN6-17A	3/8" BOLT, 1-7/8" LONG	4
8	AN960-616	3/8" FLAT WASHER	8
9	MS20365-624A	3/8" LOCKNUT	4
10a	AN833-24D OR	90° BULKHEAD FLARE FITTING	2
10b	AN838-24D	90° BULKHEAD SLIP-ON FITTING	2

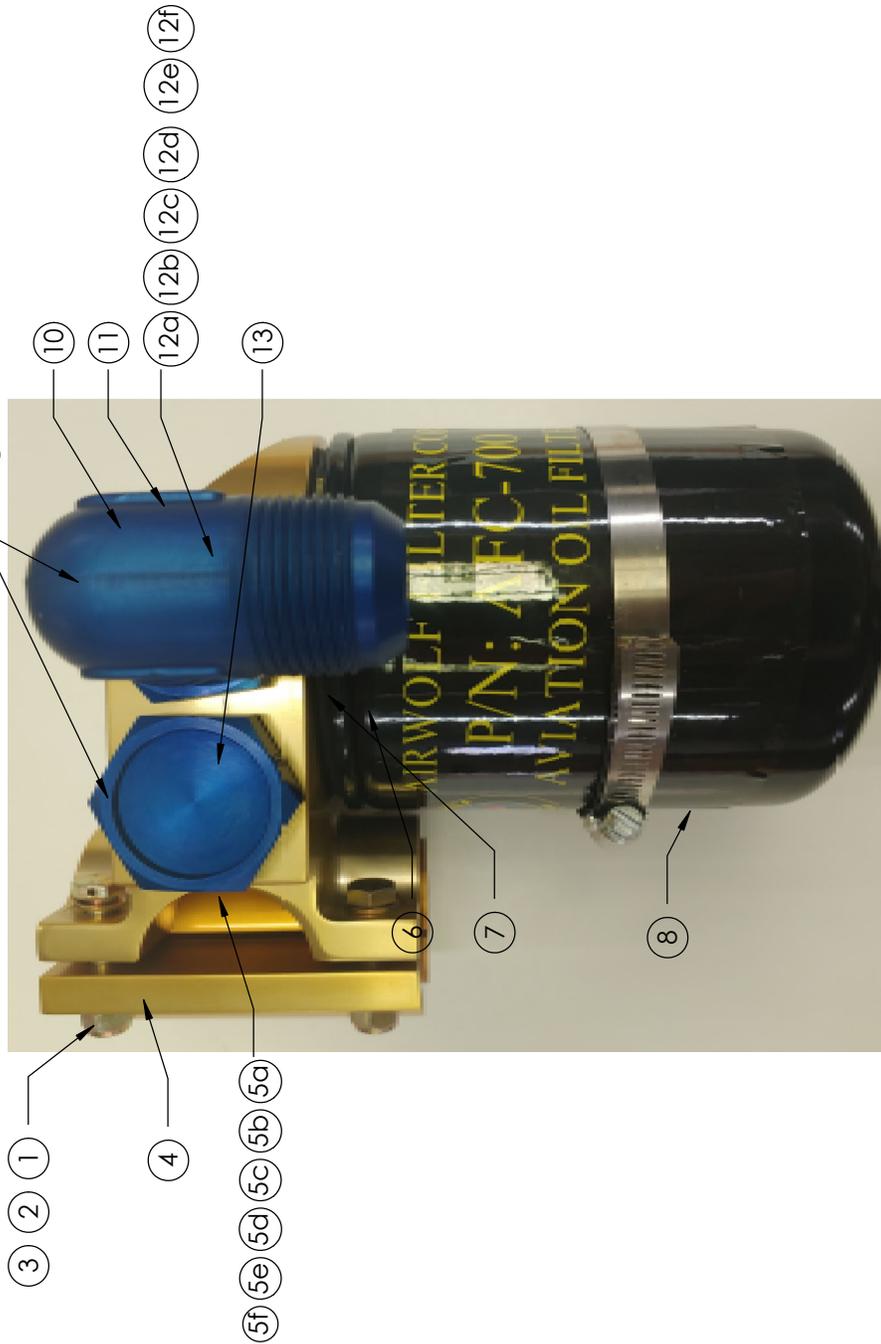
REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	REDRAWN IN SOLIDWORKS	GM	12/8/2020

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES		NAME	DATE
TOLERANCES:		GM	12/8/2020
1 PLACE ±.030	DRAWN	BDA	12/8/2020
2 PLACE ±.010	APPR. BY		
3 PLACE ±.005	ENG APPR.		
4 PLACE ±.0005	MFG APPR.		
ANGULAR ±0°30'	Q.A.		
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H			
MATERIAL			
FINISH	COMMENTS:		
NEXT ASSY	USED ON		
APPLICATION			

TITLE:		Airwolf Filter Corp.	
INSTALLATION DRAWING, OFB-19 OIL FILTER ADAPTER, ENGINE TUBE			
SIZE	DWG. NO.	REV	
A	AFC-D-0057	A	
SCALE:	WEIGHT:	SHEET 1 OF 1	

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REVISIONS		
REV.	DESCRIPTION	DATE

MATERIAL LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	AN5H-12A	BOLT, 5/16" 1-1/4" LONG	4
2	AN960-516	WASHER, FLAT	8
3	MS2035-516	NUT, LOCK	4
4	OFB-18-12	CLAMP PLATE, OIL FILTER BASE	1
5a or	OFB-18-13	1.00" BUSHING SET	1
5b or	OFB-18-14	1.125" BUSHING SET	1
5c or	OFB-18-15	1.250" BUSHING SET	1
5d or	OFB-18-16	1.375" BUSHING SET	1
5e or	OFB-18-17	1.500" BUSHING SET	1
5f	OFB-18-18	1.625" BUSHING SET	1
6	OFB-18-11	ADAPTER BODY, OIL FILTER BASE	1
7	OFS-12	STUD, FILTER	1
8	AFC-700	FILTER	1
9	M83248/1-916	VITON O-RING	4
10	MS28773-16	GASKET, TEFLON BOSS	2
11	AN6289-16D	NUT, BULKHEAD	2
12a or	AN833-16D	90 BULKHEAD FITTING, FLARED ENDS	2
12b or	AN837-16D	45 BULKHEAD FITTING, FLARED ENDS	2
12c or	AN838-16D	90 BULKHEAD FITTING, MIL6000 HOSE	2
12d or	AN839-16D	45 BULKHEAD FITTING, MIL6000 HOSE	2
12e or	AN807-16D	STRAIGHT TUBE TO HOSE	2
12f	AN815-16D	UNION	2
13	AN814-16D	PLUG	2

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		GM	12/8/2020
TOLERANCES:		DRAWN	
1 PLACE ±.030		APPR. BY	BDA
2 PLACE ±.010		ENG APPR.	
3 PLACE ±.005		MFG APPR.	
4 PLACE ±.0005		Q.A.	
ANGULAR ±0°30'			
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H			
MATERIAL			
FINISH			
COMMENTS:			
NEXT ASSY	USED ON		
APPLICATION			

Airwolf Filter Corp.

TITLE:

**ASSEMBLY DRAWING
OFB-18 OIL FILTER ADAPTER,
ENGINE TUBE**

SIZE DWG. NO. REV
A **AFC-D-0060** **IR**

SCALE: WEIGHT: SHEET 1 OF 1

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REVISIONS			
REV.	DESCRIPTION	BY	DATE



MATERIAL LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	AN4H-4A	BOLT, DRILLED HEAD	4
2	AN960-416	FLAT WASHER	4
3	OFB-15	OIL FILTER BASE	1
4a	AN844-16D	HOSE ELBOW, 45°	2
4b	AN844-12D	HOSE ELBOW, 45°	2
5a	AN840-16D	HOSE FITTING, STRAIGHT	2
5b	AN840-12D	HOSE FITTING, STRAIGHT	2
6	OFS-10	OIL FILTER STUD	1
7a	AN842-16D	HOSE ELBOW, 90°	2
7b	AN842-12D	HOSE ELBOW, 90°	2
8	AFC-600	OIL FILTER LONG OR EQUIVALENT (CHAMPION CH48109)	1
14	OFM-10	OIL FILTER MOUNT PLATE, HORIZONTAL	1

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'		DATE	12/8/2020
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H		NAME	GM
MATERIAL		DRAWN	BDA
FINISH		APPR. BY	
APPLICATION		ENG APPR.	
NEXT ASSY		MFG APPR.	
USED ON		Q.A.	
APPLICATION		COMMENTS:	

Airwolf Filter Corp.

TITLE:
ASSEMBLY DRAWING
OFB-15 OIL FILTER ADAPTER,
FIREWALL - HORIZONTAL

SIZE DWG. NO. REV
A **AFC-D-0061** **IR**

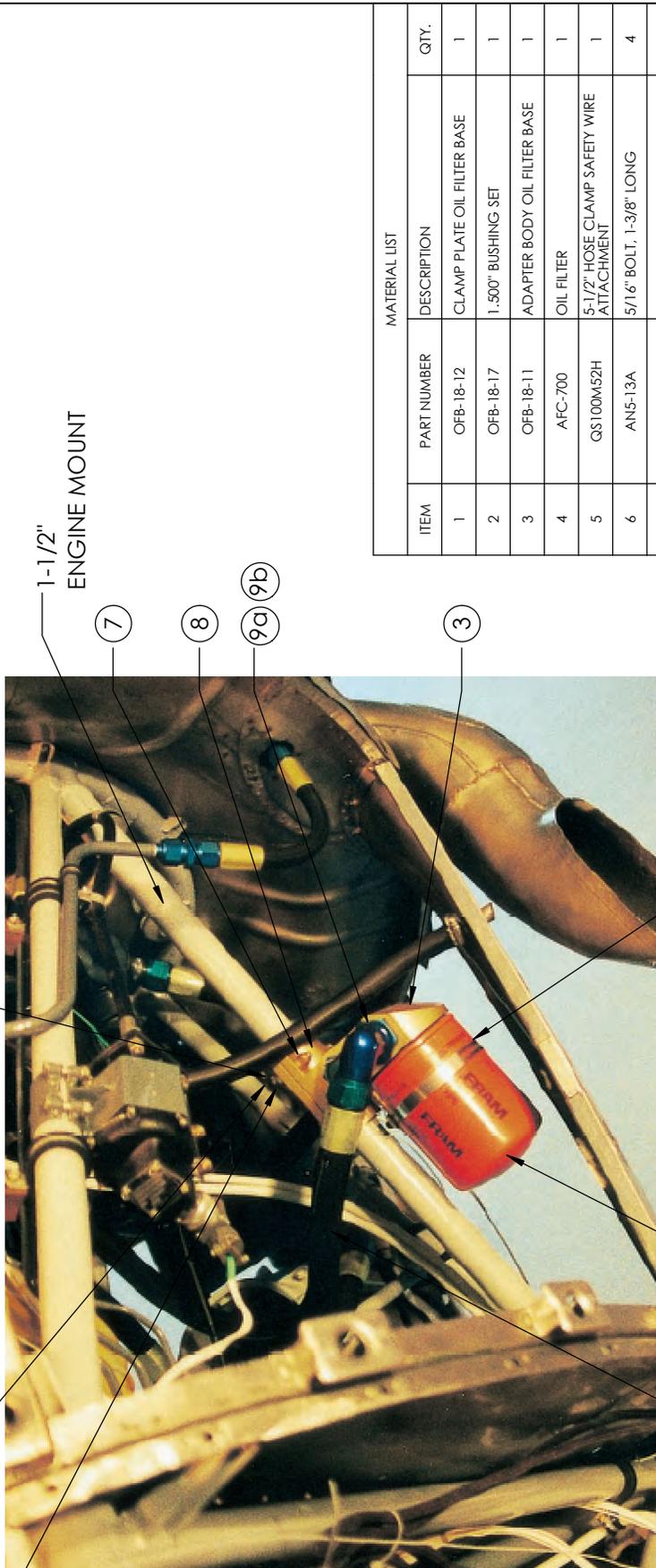
SCALE: WEIGHT: SHEET 1 OF 1

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REVISIONS	
REV.	DESCRIPTION

REV.	DESCRIPTION	BY	DATE



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	OFB-18-12	CLAMP PLATE OIL FILTER BASE	1
2	OFB-18-17	1-.500" BUSHING SET	1
3	OFB-18-11	ADAPTER BODY OIL FILTER BASE	1
4	AFC-700	OIL FILTER	1
5	GS100MS2H	5-1/2" HOSE CLAMP SAFETY WIRE ATTACHMENT	1
6	AN5-13A	5/16" BOLT, 1-3/8" LONG	4
7	AN960-516	5/16" FLAT WASHER	8
8	MS20365-516	5/16" LOCKNUT	4
9a	AN833-16D	90° BULKHEAD TO FLARE	2
9b	AN838-16D	90° BULKHEAD TO HOSE	2

RETURN LINE TO COOLER

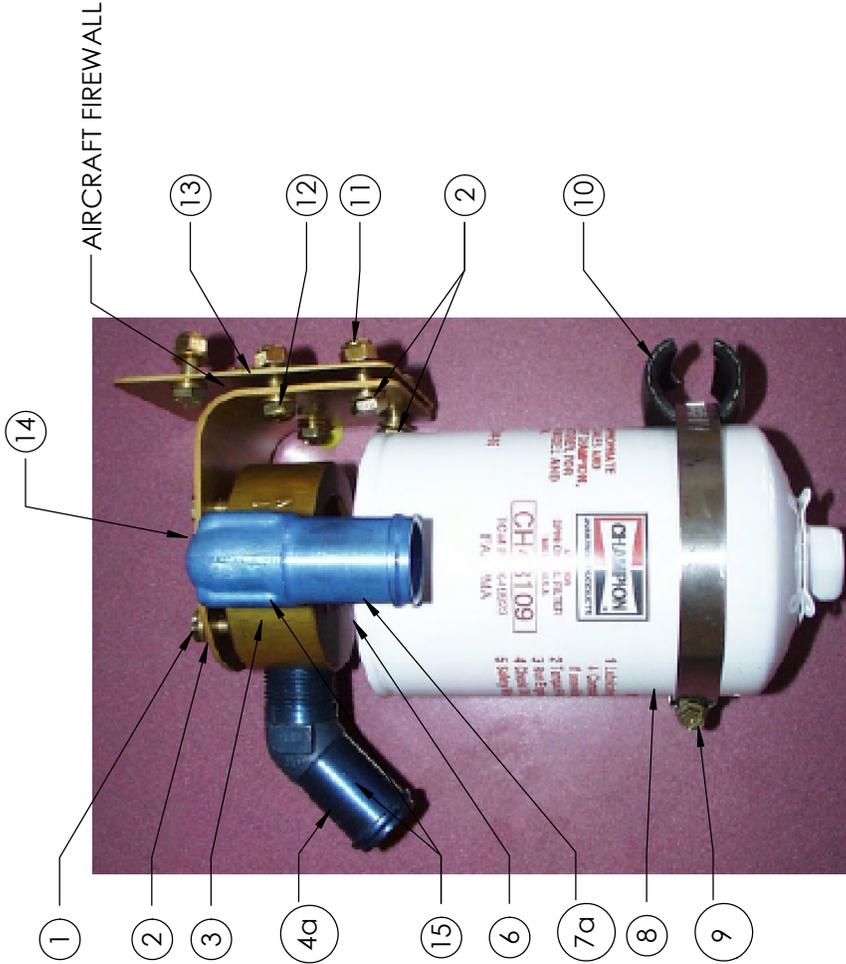
TYPICAL RADIAL ENGINE INSTALLATION SHOWN MOUNTED ON T-6 TEXAN

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		GM	12/8/2020
TOLERANCES:		BDA	12/8/2020
1 PLACE ±.030	DRAWN		
2 PLACE ±.010	APPR. BY		
3 PLACE ±.005	ENG APPR.		
4 PLACE ±.0005	MFG APPR.		
ANGULAR ±0°30'	Q.A.		
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H			
MATERIAL			
FINISH			
	COMMENTS:		
NEXT ASSY	USED ON		
APPLICATION			

Airwolf Filter Corp.	
TITLE: INSTALLATION DRAWING OFB-18 OIL FILTER ADAPTER, ENGINE TUBE	
SIZE	DWG. NO.
A	AFC-D-0062
REV	IR
SCALE:	WEIGHT:
	SHEET 1 OF 1

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MATERIAL LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	AN4H-4A	BOLT, 1/4" 1/2" LONG	4
2	AN960-416	1/4" FLAT WASHER	16
3	OFB-15	OIL FILTER BASE	1
4a or	AN844-16D or	45° HOSE ELBOW	2
5a	AN840-16D	STRAIGHT HOSE FITTING	2
6	OFS-10	OIL FILTER STUD	1
7a	AN842-16D	90° HOSE ELBOW	2
8	AFC-600	LONG OIL FILTER (CHAMPION CH48109) OR EQUIVALENT	1
9	GS100M52H	3-1/4" HOSE CLAMP	1
10	MIL6000-3/4-2	DAMPENER	1
11	MS20365-428A	1/4" LOCKNUT	6
12	AN4-5A	1/4" BOLT	6
13	DBL-10	DOUBLER PLATE	1
14	OFM-11	VERTICAL OIL FILTER MOUNT	1
15	567	LOCTITE 567 PST TEFLON THREAD SEALANT.	1

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		GM	12/8/2020
TOLERANCES:		BDA	12/8/2020
1 PLACE ±.030		APPR. BY	
2 PLACE ±.010		ENG APPR.	
3 PLACE ±.005		MFG APPR.	
4 PLACE ±.0005		Q.A.	
ANGULAR ±0°30'			
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H			
MATERIAL			
FINISH		COMMENTS:	
NEXT ASSY	USED ON		
APPLICATION			

Airwolf Filter Corp.

TITLE:
INSTALLATION DRAWING
OFB-15 OIL FILTER ADAPTER,

SIZE DWG. NO. REV
A AFC-D-0064 IR

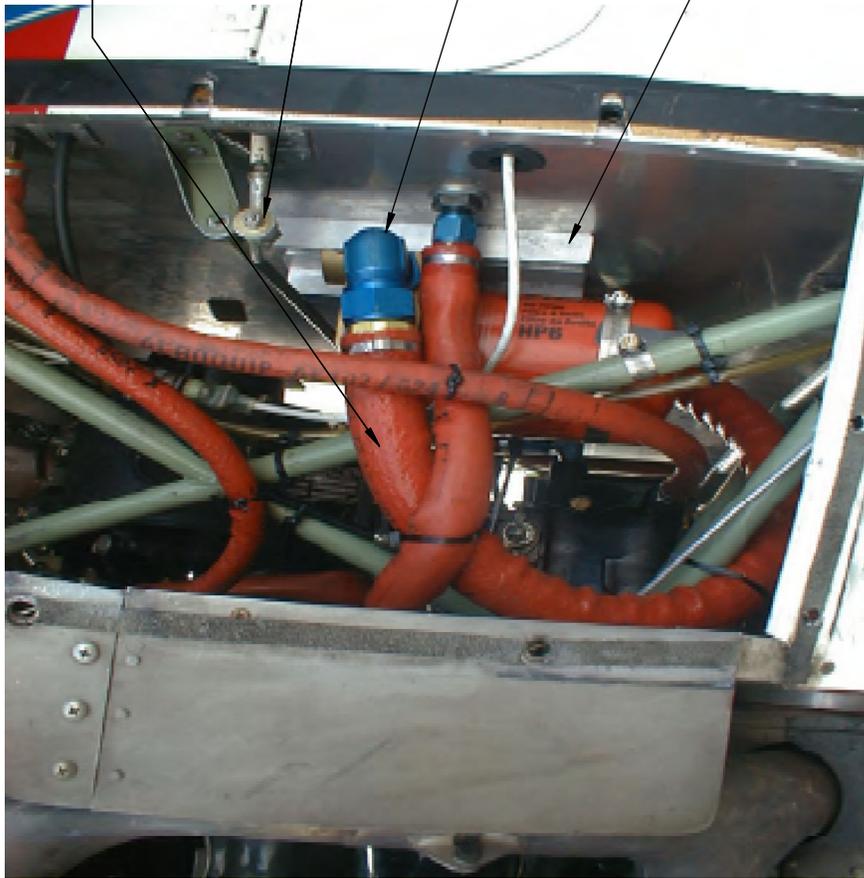
SCALE: **WEIGHT:** **SHEET 1 OF 1**

AIRWOLF FILTER CORP PROPRIETARY

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REVISIONS

REV.	DESCRIPTION	BY	DATE



LH VIEW

1" MIL-H-6000 HOSE WITH AE102-22 FRESLEEVE. SECURED TO AN839-16D 90° FITTING ON OIL FILTER BASE OUTLET.

TOP OF OIL FILTER BASE EVEN WITH LOWER EDGE OF STIFFENER

AN839-16D 90° ELBOW ON OIL FILTER BASE INLET

1" X 1.5" X .125" 6061T6 ANGLE ON EACH SIDE OF OIL FILTER BASE FRONT AND BACK OF FIREWALL. EDGE OF OUTER ANGLE IS 5" FROM EDGE OF FIREWALL.

OIL FILTER BASE MOUNTED 18.5" FORWARD OF DATUM, WHICH IS WING LEADING EDGE.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'		DRAWN GM	NAME GM	DATE 12/8/2020	Airwolf Filter Corp.	
INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.	APPR. BY BDA		12/8/2020	TITLE: TYPICAL INSTALLATION IN WEATHERLY - LEFT HAND VIEW	
MATERIAL		ENG APPR.			SIZE DWG. NO. A AFC-D-0065	REV IR
FINISH		MFG APPR.			SCALE:	WEIGHT:
USED ON		COMMENTS:				SHEET 1 OF 1
APPLICATION						