

TO THE MECHANIC:

This P/N AFC-K017 remote mount oil filter kit incorporates our generic STC approved for all Jacobs engine 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-K017 kit and the STC# SA01406NY. 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 following person who will clarify the details. Mr. Fiesel is very familiar with our filter kits and can address any concerns your FSDO inspector may have on your particular installation. FAA APPROVED

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

CHICAGO AIRCRAFT CERTIFICATION OFFICE CENTRAL REGION

OCT 3 1 2012

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 Richard Fiesel for him 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, adding the weight of the hoses and determine the net weight being added to the aircraft for calculating the new 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

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	Applicability:		s of .021 ASTM A527 galvanized steel or equivalent. Revision: Date:	: 09/01/99 B 11/11/10
ſ		having firewall	s of .021 ASTM A527 galvanized steel or equivalent. Revision: Date: Parts List No. AFC-K017-A-PL	B 11/11/10
	01. 02.	having firewall AN4H-4A AN960-416	s of .021 ASTM A527 galvanized steel or equivalent. Revision: Date: Parts List No. AFC-K017-A-PL Bolts, Drilled Head Flat Washers	B 11/11/10 (4) (16)
	01. 02. 03.	having firewall AN4H-4A AN960-416 OFB-15	s of .021 ASTM A527 galvanized steel or equivalent. Revision: Date: Parts List No. AFC-K017-A-PL Bolts, Drilled Head Flat Washers Oil Filter Base	B 11/11/10 (4) (16) (1)
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	01. 02. 03. 04a. or 04b. 05a. or 05b. 06a. or	having firewall AN4H-4A AN960-416 OFB-15 AN844-16D AN844-12D AN840-16D AN840-12D AN842-16D	s of .021 ASTM A527 galvanized steel or equivalent. Revision: Date: Parts List No. AFC-K017-A-PL Bolts, Drilled Head Flat Washers Oil Filter Base Hose Elbow, 45°, Hose Elbow, 45°, Hose Fitting, Straight, Hose Fitting, Straight, Hose Elbow, 90°,	B 11/11/10 (4) (16) (1) (2) (2) (2) (2) (2) (2) (2)
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	01. 02. 03. 04a. or 04b. 05a. or 05b. 06a. or 06b. 07. 08. 09. 10. 11. 12. 13. 14a. 14b. 15. 16a. 16b. 17.	AN4H-4A AN960-416 OFB-15 AN844-16D AN844-12D AN840-16D AN840-12D AN842-16D AN842-16D AN842-12D OFS-10 AFC-600 QS100M52H MIL6000-3/4-2 MS20365-428A AN4-5A DBL-10 OFM-11 OFM-10 56707 MIL6000-1 MIL6000-3/4 QS100M16H	s of .021 ASTM A527 galvanized steel or equivalent. Revision: Date: Parts List No. AFC-K017-A-PL Bolts, Drilled Head Flat Washers Oil Filter Base Hose Elbow, 45°, Hose Elbow, 45°, Hose Fitting, Straight, Hose Fitting, Straight, Hose Elbow, 90°, Oil Filter Stud Oil Filter Stud Oil Filter Stud Oil Filter, Long, or Equivalent [Champion CH48109] Hose Clamp, 3-1/4" Dampener Locknuts Bolts Doubler Plate Oil Filter Mount Plate, Vertical Oil Filter Mount Plate, Vertical Oil Filter Mount Plate, Horizontal Loctite® 567 PST Teflon Thread Sealant Mil6000 Hose, 3/4" I.D. Hose Clamp, 1"	B 11/11/10 (4) (16) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1
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	01. 02. 03. 04a. or 04b. 05a. or 05b. 06a. or 06b. 07. 08. 09. 10. 11. 12. 13. 14a. 14b. 15. 16a. 16b. 17.	AN4H-4A AN960-416 OFB-15 AN844-16D AN844-12D AN840-16D AN840-12D AN842-16D AN842-16D AN842-12D OFS-10 AFC-600 QS100M52H MIL6000-3/4-2 MS20365-428A AN4-5A DBL-10 OFM-11 OFM-10 56707 MIL6000-1 MIL6000-3/4 QS100M16H	s of .021 ASTM A527 galvanized steel or equivalent. Revision: Date: Parts List No. AFC-K017-A-PL Bolts, Drilled Head Flat Washers Oil Filter Base Hose Elbow, 45°, Hose Elbow, 45°, Hose Fitting, Straight, Hose Fitting, Straight, Hose Elbow, 90°, Oil Filter Stud Oil Filter Stud Oil Filter Stud Oil Filter, Long, or Equivalent [Champion CH48109] Hose Clamp, 3-1/4" Dampener Locknuts Bolts Doubler Plate Oil Filter Mount Plate, Vertical Oil Filter Mount Plate, Vertical Oil Filter Mount Plate, Horizontal Loctite® 567 PST Teflon Thread Sealant Mil6000 Hose, 3/4" I.D. Hose Clamp, 1"	B 11/11/10 (4) (16) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1

Installation Instructions No. AFC-K017-A-II	
AApplicability:Curtiss-Wright, Jacobs, Kinner, Ranger, & Warner powered AircraftFirst Release:09/01/having firewalls of .021 ASTM A527 galvanized steel or equivalent.Revision:BDate:11/11/	
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 3/4" or 1" MIL6000 hose). This line routes from the engine to oil tank, or from the engine to the oil cooler, whichever is applicable on your aircraft.	the
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 gerid of dirt and contaminants, and it keeps the oil cooler from becoming a trash collector. Therefore the oil filter should always be insta ahead of the oil cooler.	
04. Determine what size scavenge oil line is used in this particular aircraft.	
05. Determine location of oil filter base (03) and decide where on the firewall it will be mounted.	
06. Determine which fittings needed based upon hose size to be used.	
07. Using the horizontal oil filter mount (14a.) or vertical oil filter mount (14b.) as a drilling template, locate and drill mounting holes usi letter "F" drill.	ng a
AAAAA SEE WAKNING (A) ABOVE AAAAA	
08a. Secure vertical oil filter mount plate (14a) to Fwd side of firewall and doubler plate (13) to Aft side of firewall using bolts (12), washe (02), and nuts (11).	rs
OR 08b. Secure oil filter base (03) to Fwd side of firewall and horizontal oil filter mount plate(14b) to rear side using bolts (01) and washers (0 and secure with .032 MS20995-C safety wire. ***** SEE WARNING (B) BELOW *****	2)
09. Install any combination of fitting (04), (05), or (06) into oil filter base (03). Mount to oil filter mount plate (14a or 14b.) using bolts (01), washers (02), and secure with .032 MS20995-C safety wire. ***** SEE WARNING C BELOW *****	
10. Connect hose from the outlet of the scavenge oil pump to the "IN" fitting on the oil filter base (03). If using MIL6000H hose secure we the provided hose clamps (19).	vith
11. Connect hose from "OUT" fitting on the oil filter base (03) to the inlet of the oil tank or oil cooler where applicable. If using MIL600 hose secure with the provided hose clamps (17).)0H
12. Install oil filter (08) and torque per instructions on oil filter, and secure with MS20995-C safety wire. Using hose clamp (09) provided, secure dampener (10) to bottom to oil filter to provided attachment vehicle for safety wiring of oil fi	lter.
13. Safety wire drain plug 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. ***** WARNING (A) *****	
LOCAL STIFFENING OF THE FIREWALL MAY BE NECESSARY TO SUPPORT WEIGHT OF OIL FILTER AND PREVE	<u>NT</u>
FIREWALL CRACKING. ***** WARNING (B) *****	
<u>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.</u>	-
**** 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)	

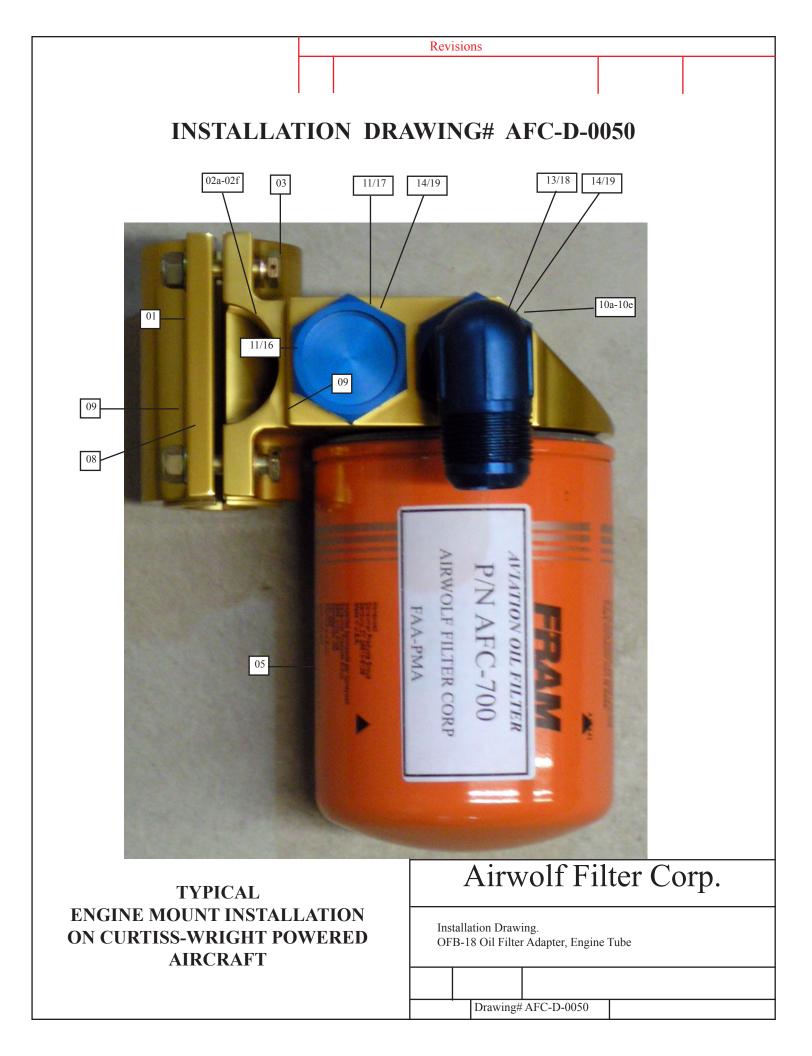
-		ts List AN4H-4A AN4H-4A AN960-416 OFB-15 AN844-12D AN844-12D AN844-12D AN844-12D	05b. AN840-12D Hose Fitting, Straight (2) 06. OFS-10 Oil Filter Stud (1) 07a. AN842-16D Hose Elbow, 90°, (2) 07b. AN842-12D Hose Elbow, 90°, (2) 07b. AN842-12D Hose Elbow, 90°, (2) 08. AFC-600 Oil Filter, Long, (2) 14. OFM-10 Oil Filter Mount Plate, Horizontal (1)	Airwolf Filter Corp.	Assembly Drawing. OFB-15 Oil FilterAdapter, Firewall	
ASSEMBLY	Aircraft Firewall	Internal and the second	rts List AN4H-4A AN960-416 OFB-15 AN844-16D AN844-16D AN840-16D AN840-16D AN840-12D	06. OFS-10 Oil Filter Stud (1) 07a. AN842-16D Hose Elbow, 90°, (2) 07b. AN842-12D Hose Elbow, 90°, (2) 07b. AN842-12D Hose Elbow, 90°, (2) 08 AFC-600 Oil Filter Lowo or Familyalent [Chammion CH48109] (1)	QS100M52H Hose Clamp, 3-1/4" QS100M52H Hose Clamp, 3-1/4" MIL600-3/4-2 Dampener MS20365-428A Locknuts AN4-5A Bolts Doub to Doubles	



		Oil Filter Kit AFC-K017		
Applicability:	Curtiss-W	Vright powered Aircraft having firewalls	First Release:	09/01/99
	of .021 A		Revision: Date:	B 11/11/10
			Date.	11/11/10
		Parts List No. AFC-K017-B-PL (continued)		
Index	Part Number	Description	<u>Ou</u>	<u>iantity</u>
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 15f.	AN807-12D AN815-12D	Straight Tube To Hose Adapter Union		(2) (2)
151. 16.	AN813-12D AN814-12D	Plug		(2) (2)
10.	AN6289-12D	Bulkhead Nut		(2) (2)
17.	MS28773-912	Teflon Boss Gasket		(2) (2)
19.	M83248/1-912	Viton O-Ring		(2) (2)
20a. or	MIL6000-1	1" I.D. MIL6000 Hose		(2) (2)
20b.	MIL6000-3/4	3/4" I.D. MIL6000 Hose		(2)
	AE102-22	Firesleeve for MIL6000 Hose		
	J253	Firesleeve Band Clamps		
21.	QS100M16H	1" Hose Clamp		(4)
22a. or	F13000016-0xxx	Titeflex® Teflon Hose Assy with Fire Sleeving. [-16 Size]		(2) (2)
22b. or 22c. or	13000016-0xxx F13000012-0xxx	Titeflex® Teflon Hose Assy w/o Fire Sleeving. [-16 Size] Titeflex® Teflon Hose Assy with Fire Sleeving. [-12 Size]		(2) (2)
220. or	13000012-0xxx	Titeflex® Teflon Hose Assy w/o Fire Sleeving. [-12 Size]		(2) (2)
23.	DBL-14	Doubler Plate, Beaver		(2) (1)
24.	B-7669B	Chip Detector		(1) (1)
25.	AFC-K017-II	Installation Instructions		(1)
26.	AFC-K017-MI	Instructions for Continued Airworthiness		(1)
27.	AFC-K017-PL	Parts List		(1)
		***** WARNING (A) *****		
		TREWALL MAY BE NECESSARY TO SUPPORT WEIGHT OF OIL FILT	ER AND PREV	<u>ENT</u>
<u>FIREWAL</u>	<u>L CRACKING.</u>			
		***** WARNING (B) *****		
LUBRICA	FE FITTINGS WITH 7	FHREAD LUBE OR LIGHT OIL BEFORE INSTALLATION INTO OIL F	ILTER BASE O'	THER-
WISE GAL	LING OF MATERIAL	L MAY RESULT.		
		***** WARNING (C) *****		
		E FLUID LINES ABOVE EXHAUST SYSTEM, UNLESS SHROUDED.	CHANCES	
	<u>NG ACCESSORIES)</u>	FOR INTER-RELATIONSHIP BETWEEN THIS AND OTHER ENGINE (<u>UHANGES</u>	
(IIICLODI	<u>NUACCESSORIESJ</u>			
		***** WARNING (D) *****		
NO SUBST	TUTION OF OIL FI	TER ALLOWED. THIS FILTER INCORPORATES AN INTERNAL BYF	ASS RELIEF VA	ALVE
		SPECS, HAS THE LASTEST MICROGLAS FILTER TECHNOLOGY WI		
		CIENCY, AND HAS AN INTERNAL SCREEN COVERING THE OIL PRI		
		METAL INSIDE THE FILTER CAN WHEN A CATASTROPHIC ENGIN		
		**** WARNING (E) ****		
	NEVED EV	ER INSTALL AN OIL FILTER ON THE ENGINE OIL PUMP INLET.		
		ER INSTALL AN OIL FILTER ON THE ENGINE OIL FUMP INLET. NES CAN COLLAPSE, THEREBY STARVING THE ENGINE OF OIL.		
		THE OIL ROUTING AND OIL FLOW IS ALWAYS;		
ENGINI	E SCAVENGE PUMP (OUTLET> AIRWOLF OIL FILTER> OIL COOLER (if applicable)	-> OIL TANK.	

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

	Installation Instructions No. AFC-K017-B-II		
pplicabili	ty: Curtiss-Wright powered aircraft having firewall of .021 ASTM A527 galvanized steel or equivalent.	First Release: Revision: Date:	09/01/00 B 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 3/4" or 1" MIL6000 hose). This oil tank, or from the engine to the oil cooler, whichever is applicable on your aircraft.	s line routes from the	e engine to the
	NOTE: You always want to filter oil at it's hottest point, and in front of the oil cooler. The hotter the orid of dirt and contaminants, and it keeps the oil cooler from becoming a trash collector. Therefore the ahead of the oil cooler.		
04.	Determine what size scavenge oil line is used in this particular aircraft.		
05.	Determine location of oil filter base (03) 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 (02a-f) into oil filter base (03) and oil f	ilter base clamp.	
08.	Using bolts (07), washers (08), and locknuts (09) supplied, secure assembled oil filter base to engine n	nount and torque to 1	00-140 in/lbs.
09.	Determine which fittings needed based upon hose size and whether or not the original MIL6000 will s will be upgraded to the newer flare fitting type hose.	till be used or wheth	er the hose
10.	Onto each bulkhead fitting (10a-f) or (14a-f), install in order 1 ea. bulkhead nut (11/15), boss gasket (1 and O-Ring (13/17).	2/16),	
	CAUTION: O-ring (13/17) and boss gasket (12/16) <u>must seal</u> and be positioned in the center, smooth, fitting. If this is not done, when you tighten down the blue bulkhead nut (11/15), you will force the O-first set of threads on the bulkhead fitting, cutting the O-Ring, and mushrooming out the Teflon Boss g ing a small oil leak.	Ring (13/17) agains	t the end of the
11.	Lightly oil assembled bulkhead fittings and install into appropriate inlet/outlet holes of oil filter base ((***** WARNING *****		
	DO NOT INSTALL DRY FITTINGS INTO OIL FILTER BASE OTHERWISE GALLING OF MA	ATERIAL WILL R	<u>ESULT.</u>
12.	Connect hose from the outlet of the scavenge oil pump to the "IN" fitting on the oil filter base (03). If the provided hose clamps (19).	using MIL6000H ho	se secure with
13.	***** SEE WARNING C ABOVE ***** Connect hose from "OUT" fitting on the oil filter base (03) to the inlet of the oil tank or oil cooler who hose secure with the provided hose clamps (19).	ere applicable. If usi	ng MIL6000H
14.	Tighten bulkhead nuts at this time. NOTE: The entire sealing function occurs by lightly compressing the O-Ring. Once the Teflon boss g with the O-Ring (13/17), $1/2$ to $3/4$ turn on the bulkhead nut (11/15) is all that is needed. Do not overt need to bottom out against the oil filter adapter (03).		
15.	Install appropriate O-Ring (13/17) onto plug/bleeder and install into unused inlet/outlet holes, torque to	specs and safety wi	re.
16.	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	y wiring of oil filter.	
17. 18. 19.	Safety wire drain plug and refill oil tank with oil. (If step #2 is omitted this step is not necessary). Run engine and check for leaks. Determine weight and balance, initiate 337 form, and update the equipment list.		





Reference Data for AFC-K017 for STC SA01406NY Oil Filter Kit AFC-K017

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-K017 remote mount oil filter kit incorporates our STC approved for all Curtis -Wright, Jacobs, Kinner, Ranger, & Warner 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-K017 kit and the STC# SA01406NY. 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. <u>Do not</u> over tighten the fittings on Adapters or housings. This can distort or crack housings, causing oil to leak.
- 4. It is <u>*EXTREMELY*</u> 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. <u>BE PATIENT!!!</u> 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) *****

<u>USE LOCTITE® BRAND 567 TEFLON THREAD SEALANT BEFORE INSTALLATION OF FITTINGS. DO NOT</u> <u>ASSEMBLE FITTINGS INTO OIL FILTER BASE WITHOUT SEALANT OTHERWISE GALLING OF</u> 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) *****

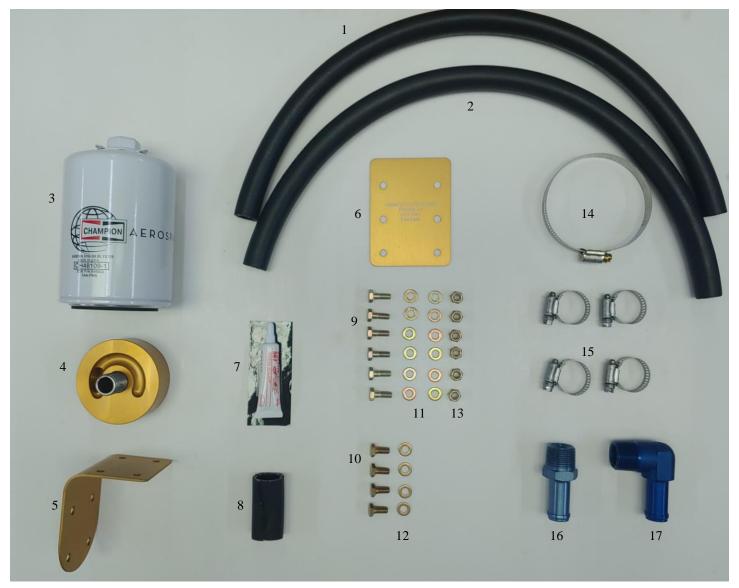
DO NOT, UNDER ANY CIRCUMSTANCES, CONNECT AN OIL COOLER THAT DOES NOT HAVE A THERMOSATIC CONTROL VALVE, IN SERIES WITH OUR REMOTE MOUNT OIL FILTER KIT. OUR FILTER KIT IS A "FULL FLOW" OIL FILTERING SYSTEM WHICH MEANS ALL OF THE OIL IS FILTERED ALL OF THE TIME. DURING STARTUP ON A COLD DAY, THE COLD THICK 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. <u>THE OIL COOLER WILL SEPARATE IN HALF.</u>
- 2. THE OIL FILTER GASKET WILL FAIL AND/OR THE OIL FILTER WILL EXPLODE.
- 3. <u>THE OIL HOSE WILL FAIL</u>

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

<u>NOTE:</u> <u>COMMON TO ALL INSTALLATIONS</u> <u>SOME HOSES OR WIRES MAY HAVE TO BE REROUTED SO THE OIL FILTER ASSEMBLY</u> <u>WILL FIT INTO POSTION. REFERENCE AND MATERIAL PER AC 43.13-1B & 2A.</u>

Illustrated Parts List No. AFC-K017-PL-A Applicability: Curtis-Wright, Jacobs. Kinner, Ranger, & Warner Powered Aircraft having firewalls of .021" ASTM A527 galvanized steel or equivalent.



Parts Illustration Curtis- Wright, Jacobs. Kinner, Ranger, & Warner Engine Series

Parts List No. AFC-K017-PL-A Applicability: Curtis-Wright, Jacobs. Kinner, Ranger, & Warner Powered Aircraft having firewalls of .021" ASTM A527 galvanized steel or equivalent.

Index	Part Number	Description	Quantity
1	MIL6000-3/4	Hose ³ / ₄ " ID	24
2	MIL6000-3/4	Hose ³ / ₄ " 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-K017-II-A

Applicability: Installation of the remote oil filter kit on Boeing Model 75 series aircraft with Curtis-Wright, Jacobs. Kinner, Ranger, & Warner Engine on aircraft having firewalls of .021" ASTM A527 galvanized steel or equivalent.

- 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. Per Installation Drawing AFC-D-0019, 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. Drill the hole of the removed screw to 1/4" (.250).
- 5. Per Installation Drawing AFC-D-0019, 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. Per Installation Drawing AFC-D-0064, Slip doubler plate (DBL-10) between the firewall and stiffeners. The long side goes up.
- 7. Per Installation Drawing AFC-D-0019, 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. Per Illustrated Parts List, Install provided AN842-16D fittings (16 or 17) in the oil filter base (4). 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) (4) to oil Filter Mount Plate, Vertical (5) using provided AN4H-4A bolts (10) and washers (12). 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 port "B" 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 and 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.

Applicability:

Illustrated Parts List No. AFC-K017-PL-B Curtis-Wright, Jacobs. Kinner, Ranger, & Warner, Powered Aircraft having firewalls of .021" ASTM A527 galvanized steel or equivalent.



Parts Illustration OFB-18 and OFB-20 Oil Filter Adapter

Parts List No. AFC-K017-PL-B Applicability: Curtis-Wright, Jacobs. Kinner, Ranger, & Warner, 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 or	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
19			1

Installation Instructions No. AFC-K017-II-B

Applicability: Installation of the remote oil filter kit on aircraft with Curtis-Wright, Jacobs. Kinner, Ranger, & Warner, 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 tank, or from the engine to the oil cooler, whichever is applicable on your aircraft.

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. Determine what size scavenge oil line is used in this aircraft.
- 5. Per Illustrated Parts List, determine location of oil filter base (3) and decide where on the firewall it will be mounted or Engine Mount Tube, using bolts (5), washers (6), and locknuts (7) supplied, secure oil filter base (3) to doubler plate, install rear clamp plate (1), and torque to 100-140 in/lbs.

Note: When done correctly, the firewall 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) <u>must</u> 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 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 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 of 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.

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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REV.

REVISIONS

ΒY DATE

Date: 10/17/2022



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			UNLESS OTHERWISE SPECIFIED:	-	NAME	DATE		Α	Airwolf Filter Corp.				
			DIMENSIONS ARE IN INCHES TOLERANCES:	DRAWN	GM	12/8/2020		/ \					
			1 PLACE ±.030 2 PLACE ±.010	APPR. BY	BDA	12/8/2020	TITLE:	RC		N			
			3 PLACE ±.005 4 PLACE ±.0005	ENG APPR.				OFM-15, Oil Filter					
			ANGULAR ±0°30' INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	MFG APPR.				C	riitei ate	ſ			
				Q.A.									
			MATERIAL				SIZE [DWG.	10	REV			
	NEXT ASSY	USED ON	FINISH	COMMENTS:			A	А	FC-D-00	17	IR		
	APPLICATION						SCALE	:	WEIGHT:	SHE	ET 1 OF 1		
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AIRWOLF FILTER COR	REVISIONS									
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WRITTEN CONSENT, AND THAT NO RIGHT IS G CONTAINED IN SAID DOCUMENT. THIS RESTRI										
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			/AIRCRAFT	FIREWA	ALL .					
(2) —										
(3)			<u>(13)</u>	Г				T		
	Contrast Contrast	A DAME		-			MATERIAL LIS	1		QTY.
			(12)				BOLT, DRILLED H	FAD		4
(4b) (4a)		8		-			FLAT WASHER			16
		RIAN	<u>(11)</u>	-		OFB-15	OIL FILTER BASE			1
				-	4a AN	1844-16D	HOSE ELBOW, 45	5 °		2
(6)	WW. VJ		(2)	-	4b At	1844-12D	HOSE ELBOW, 45	ō°		2
	6013 FE		\bigcirc		5a AN	1840-16D	HOSE FITTING, ST	RAIGHT		2
(7a) (7b)	BALAN T TAN THE PARTY PARTY	any 13m			5b AN	840-12D	HOSE FITTING, ST	RAIGHT		2
		HCLEVIC	\frown		6	OFS-10	OIL FILTER STUD			1
(8)	CHV/HDOM		/(10)	-			HOSE ELBOW, 90			2
	and the second s			-		1842-12D	HOSE ELBOW, 90 OIL FILTER, LONC			2
				-		FC-600	(CHAMPION CH	48109)		
(9)		Search 1		-			HOSE CLAMP, 3- DAMPENER	-1/4"		
$\langle \rangle$		Standolli.		-		0365-428A				6
	Contraction of the second			-		AN4-5A	BOLT			6
				-		DBL-10	DOUBLER PLATE			
				-	14 (OFM-11	OIL FILTER MOUN	NT PLATE, V	'ERTICAL	1
		UNLESS OTHERWISE SPEC		NAME	DATE		Airwolf F	ilter C	orn	
		DIMENSIONS ARE IN INCHES TOLERANCES:	DRAWN	GM	12/8/2020		,		- P.	
-		1 PLACE ±.030 2 PLACE ±.010	APPR. BY	BDA	12/8/2020					
		3 PLACE ±.005 4 PLACE ±.0005	ENG APPR.				SSEMBLY			D
		ANGULAR ±0°30'	MFG APPR.				IREWALL -			Ν,
		TOLERANCING PER: ANSY Y 1						V LIXII		
		MATERIAL					WG. NO.	0050		EV
	NEXT ASSY USED ON	FINISH	COMMENTS:				AFC-D-	0059		R
-	APPLICATION					SCALE:	WEIGHT:		SHEET 1	OF 1
5	4	3			2	I		1		

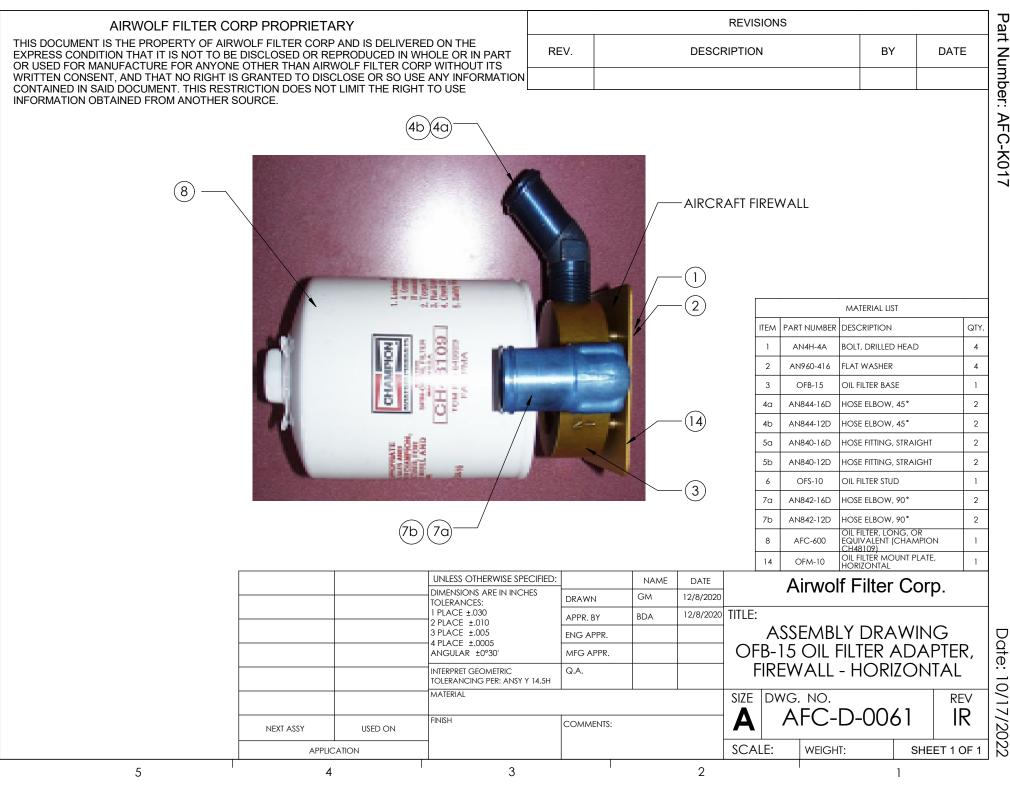
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Date: 10/17/2022

Part Number: AFC-K017

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WRITTEN CONSENT, AND THAT NO RIGHT IS GRANTED T CONTAINED IN SAID DOCUMENT. THIS RESTRICTION DO INFORMATION OBTAINED FROM ANOTHER SOURCE.	TO DISCLOSE OR SO US	E ANY INFORMATION									
		(10)						MATERIAL L	ST		
						ITEM	PART NUMBER	DESCRIPTION	l		QTY.
		(11)				1	AN5H-12A	BOLT, 5/16" 1	-1/4" LONG		4
			$\neg \frown \frown$	\frown	F	2	AN960-516	WASHER, FLA	T		8
(4)		(12a)(12	2b)(12c)(12c) (12e)(12f)) [3	MS2035-516	NUT, LOCK			4
					F	4	OFB-18-12	CLAMP PLAT	E, OIL FILTER	BASE	1
	7				F	5a or	OFB-18-13	1.00" BUSHING	G SET		1
5f) (5e) (5d) (5c) (5b) (5d)	1	(13)			F	5b or	OFB-18-14	1.125" BUSHIN	IG SET		1
		-			F	5c or	OFB-18-15	1.250" BUSHIN	IG SET		1
	- */					5d or	OFB-18-16	1.375" BUSHIN	IG SET		1
	17				F	5e or	OFB-18-17	1.500" BUSHIN	IG SET		1
6	1 ANSH-12A BOLT, 5/16 ⁺ 1-1/4 ⁺ LONK 2 ANSH-12A BOLT, 5/16 ⁺ 1-1/4 ⁺ LONK 2 ANSH-12A BOLT, 5/16 ⁺ 1-1/4 ⁺ LONK 2 ANSH-12A BOLT, 5/16 ⁺ 1-1/4 ⁺ LONK 3 MS2035-516 MUT, LOCK 4 OFB-18-12 CLAMP PLATE, OIL, FLIC 5c OFB-18-12 CLAMP PLATE, OIL, FLIC 5c OFB-18-14 1.235 ⁺ BUSHING SET 5c OFB-18-16 1.235 ⁺ BUSHING SET 120 MAS246/1-90 ⁺	IG SET		1							
	AMOLL UT	IEKU			F	6	OFB-18-11	ADAPTER BO	DY, OIL FILTE	R BASE	1
	6 OFB-18-11	OFS-12				1					
	Γ/Γ , A	/W				8	AFC-700	FILTER			1
// A	ULTION		—(14)			9	M83248/1-916	VITON O-RIN	G		4
1	U NULLAL		<u> </u>		F	10	MS28773-916	GASKET, TEFL	on boss		2
177 Million	Statements And and and				Γ	11	AN6289-16D	NUT, BULKHE	٩D		2
					F	12a or	AN833-16D	90 BULKHEAD	FITTING, FLA	RED ENDS	2
(8)					F	12b or	AN837-16D	45 BULKHEAD	FITTING, FLA	RED ENDS	2
					Γ	12c or	AN838-16D	90 BULKHEAD	FITTING, MIL	6000 HOSE	2
					Г	12d or	AN839-16D	45 BULKHEAD	FITTING, MIL	6000 HOSE	2
					Γ	12e or	AN807-16D	STRAIGHT TUE	BE TO HOSE		2
ENGINE MOUNT INSTALLATION ON						12f or	AN815-16D	UNION			2
CURTISS-WRIGHT POWERED AIRCRAFT	· · · /					13	AN814-16D	PLUG			2
						14	Q\$100M76H	CLAMP, SCF	REW 5-1/2"		1
			FIED:	NAME	DATE		Ain	nlf Fil	ter Co	nn	
		DIMENSIONS ARE IN INCHES TOLERANCES:	DRAWN	GM	12/8/2020		7 11 99			Jip.	
		1 PLACE ±.030 2 PLACE ±.010	APPR. BY	BDA	12/8/2020	20 TITLE:					
		3 PLACE ±.005	ENG APPR.			1	INSTALLA	ATION	DRA	WING	,
		4 PLACE ±.0005 ANGULAR ±0°30'	MFG APPR.				FB-18 OI				
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14	Q.A.					IGINE			
		MATERIAL				SIZE	DWG. NO			RE	
NEXT ASS	SY USED ON	FINISH	COMMENTS:			A	AFC	C-D-C	060	IF IF	2
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	APPLICATION					1 30	ALE: WEI	IGHT:	S	HEET 1 C	JF 1

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Date: 1 0/17/2022

AIRWOLF FILTER	CORP PROPRIETARY					REVISIONS			
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					IGINE M	OUNT			
					ITEM	PART NUMBER	MATERIAL LIST		QIY.
			N/	-(3)	1	OFB-18-12 OFB-18-17	CLAMP PLATE C		E 1
			1		3	OFB-18-11	ADAPTER BODY		
					4	AFC-700	OIL FILTER		1
					5	Q\$100M52H	5-1/2" HOSE CLA ATTACHMENT	AMP SAFETY V	VIRE 1
					6	AN5-13A	5/16" BOLT, 1-3/6		4
					7	AN960-516	5/16" FLAT WASH	HER	8
RETURN LINE TO COOLER ————/	(4)/		5)		8	MS20365-516	5/16" LOCKNUT		4
τγριζαι β	ADIAL ENGINE INSTALLA	TION SHOWN MOUNTED O	N T-6 TEXAN		9a	AN833-16D	90° BULKHEAD T	O FLARE	2
					9b	AN838-16D	90° BULKHEAD T	O HOSE	2
		UNLESS OTHERWISE SPE		NAME	DATE	Δ	irwolf Fill	ter Co	rn
		DIMENSIONS ARE IN INCH TOLERANCES:	IES DRAWN	GM	12/8/2020	7.1			νp.
		1 PLACE ±.030 2 PLACE ±.010	APPR. BY	BDA	12/8/2020	TITLE:	_		_
		3 PLACE ±.005 4 PLACE ±.0005	ENG APPR.				LLATION		
		ANGULAR ±0°30'	MFG APPR.				OIL FILTE		APTER,
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y	Q.A.				ENGINE	TUBE	
		MATERIAL	1 14.011			size dwg.	NO.		REV
		FINISH	COMMENTS:				FC-D-0	062	IR
	NEXT ASSY	JSED ON							
	APPLICATION					SCALE:	WEIGHT:		HEET 1 OF