

#### AIRWOLF FILTER CORP.

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#### 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 - 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 FAA APPROVED

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 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



Applicability:	Curtiss-Wrigh having firewal	First Release: Revision: Date:	09/01/99 B 11/11/10	
		Parts List No. AFC-K017-A-PL		
01.	AN4H-4A	Bolts, Drilled Head		(4)
02.	AN960-416	Flat Washers		(16)
03.	OFB-15	Oil Filter Base		(1)
04a. or	AN844-16D	Hose Elbow, 45°,		(2)
04b.	AN844-12D	Hose Elbow, 45°,		(2)
05a. or	AN840-16D	Hose Fitting, Straight,		(2)
05b.	AN840-12D	Hose Fitting, Straight,		(2)
06a. or	AN842-16D	Hose Elbow, 90°,		(2)
06b.	AN842-12D	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)
14a.	OFM-11	Oil Filter Mount Plate, Vertical		(1)
14b.	OFM-10	Oil Filter Mount Plate, Horizontal		(1)
15.	56707	Loctite® 567 PST Teflon Thread Sealant		(1)
16a.	MIL6000-1	Mil6000 Hose, 1" I.D.		(2)
16b.	MIL6000-3/4	Mil6000 Hose, 3/4" I.D.		(2)
17.	QS100M16H	Hose Clamp, 1"		(4)
18.	AFC-K017-II	Installation Instructions		(1)
19.	AFC-K017-MI	Instructions for Continued Airworthiness		(1)
20.	AFC-K017-PL	Parts List		(1)

#### Installation Instructions No. AFC-K017-A-II **AApplicability:** Curtiss-Wright, Jacobs, Kinner, Ranger, & Warner powered Aircraft First Release: 09/01/99 having firewalls of .021 ASTM A527 galvanized steel or equivalent. Revision: В 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). 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 the 03. 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 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 using a letter "F" drill. \*\*\*\*\* SEE WARNING (A) ABOVE \*\*\*\*\* 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), washers (02), and nuts (11). 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 (02) and secure with .032 MS20995-C safety wire. \*\*\*\* SEE WARNING (B) BELOW \*\*\*\* 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 with the provided hose clamps (19). 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 MIL6000H 11. hose secure with the provided hose clamps (17). 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 filter. 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 PREVENT FIREWALL CRACKING.

\*\*\*\*\* WARNING (B) \*\*\*\*\*
E LOCTITE® 547 BCT TEEL ON THREAD SEAL AND RESORT INST

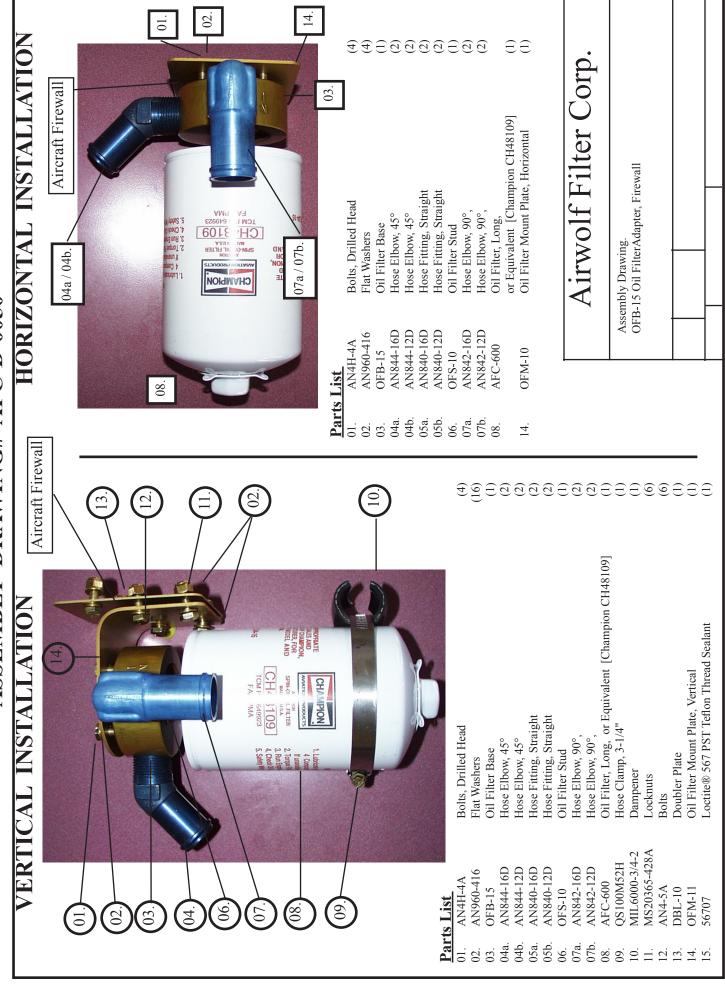
USE LOCTITE® 567 PST TEFLON THREAD SEALANT BEFORE INSTALLATION OF FITTINGS. DO NOT ASSEMBLE FITTINGS INTO OIL FILTER BASE WITHOUT SEALANT OTHERWISE GALLING OF MATERIAL WILL RESULT.

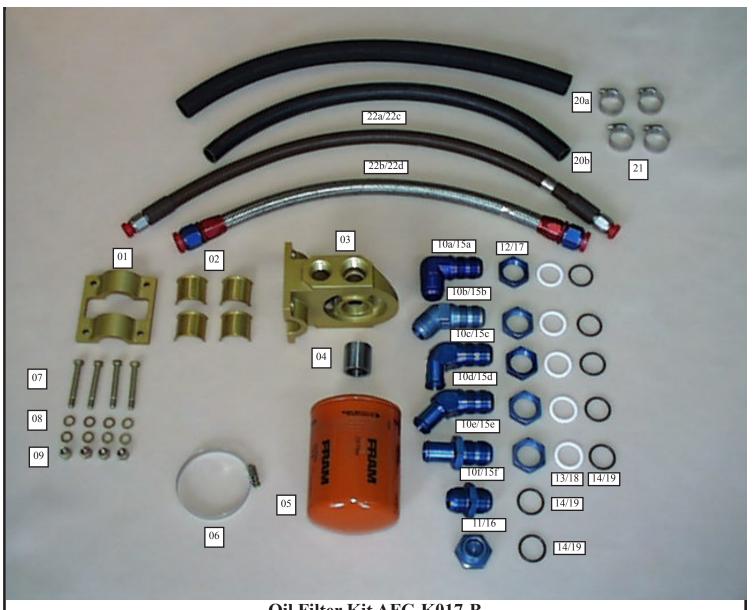
\*\*\*\*\* WARNING (C) \*\*\*\*\*

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)

# ASSEMBLY DRAWING# AFC-D-0050





#### Oil Filter Kit AFC-K017-B

First Release: Applicability: **Curtiss-Wright powered Aircraft having firewalls** 09/01/99 of .021 ASTM A527 galvanized steel or equivalent. **Revision:** 11/11/10 Date:

	Parts List No. AFC-K017-B-PL						
<u>Index</u>	Part Number	Description	<b>Quantity</b>				
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-K017

Applicability: Curtiss-Wright powered Aircraft having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 09/01/99
Revision: B

Date: 11/11/10

Parts List No. AFC-K017-B-PL (continued)

<b>Index</b>	Part Number	<u>Description</u>	<b>Quantity</b>
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)
	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)
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-K017-II	Installation Instructions	(1)
26.	AFC-K017-MI	Instructions for Continued Airworthiness	(1)
27.	AFC-K017-PL	Parts List	(1)
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\*\*\*\*\* WARNING (A) \*\*\*\*\*

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

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

<u>LUBRICATE FITTINGS WITH THREAD LUBE OR LIGHT OIL BEFORE INSTALLATION INTO OIL FILTER BASE OTHERWISE GALLING OF MATERIAL MAY 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)

\*\*\*\*\* 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 LASTEST 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.

#### **Installation Instructions No. AFC-K017-B-II**

Applicability: 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 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 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 filter base clamp.
- 08. Using bolts (07), washers (08), and locknuts (09) 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 (10a-f) or (14a-f), install in order 1 ea. bulkhead nut (11/15), boss gasket (12/16), and O-Ring (13/17).

CAUTION: O-ring (13/17) and boss gasket (12/16) <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 (11/15), you will force the O-Ring (13/17) against the end of the first set of threads on the bulkhead fitting, cutting the O-Ring, and mushrooming out the Teflon Boss gasket (12/16) 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 (03) 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 (03). If using MIL6000H hose secure with the provided hose clamps (19).

#### \*\*\*\*\* SEE WARNING C ABOVE \*\*\*\*\*

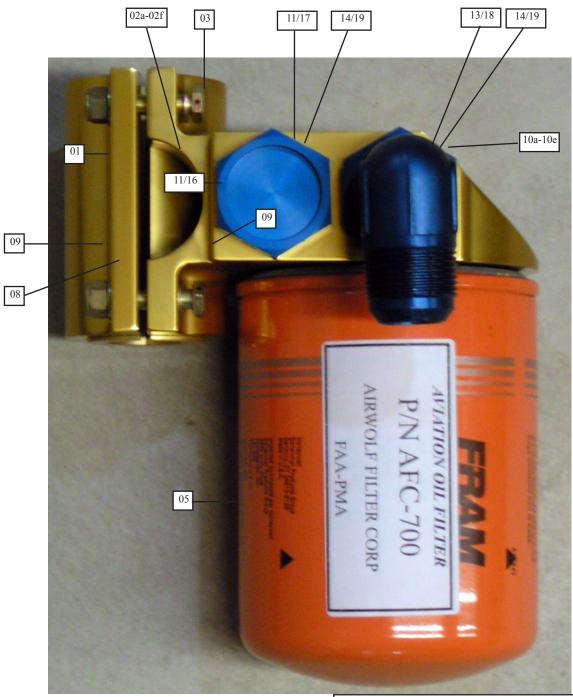
- Connect hose from "OUT" fitting on the oil filter base (03) to the inlet of the oil tank or oil cooler where applicable. If using MIL6000H hose secure with the provided hose clamps (19).
- 14. Tighten bulkhead nuts at this time.

NOTE: The entire sealing function occurs by lightly compressing the O-Ring. Once the Teflon boss gasket (12/16) comes in contact 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 overtighten bulkhead nut as it does not 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 wire.
- 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 wiring of oil filter.
- 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
ON CURTISS-WRIGHT POWERED
AIRCRAFT

# Airwolf Filter Corp.

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

Drawing# AFC-D-0050



## **Reference Data**

for

**AFC-K017** 

for

STC SA01406NY Oil Filter Kit

**AFC-K017** 

**Dated: 5-6-2024** 

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

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Date: 5-6-2024 Part Number: AFC-K017



#### 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

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, 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 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  $90^{\circ}$ , Straight to  $45^{\circ}$ , 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. 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 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. 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 POSTION. REFERENCE AND MATERIAL PER AC 43.13-1B & 2A.

#### Applicability:

# Illustrated Parts List No. AFC-K017-PL-A Curtis-Wright, Jacobs. Kinner, Ranger, & Warner Powered Aircraft



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 <sup>3</sup> / <sub>4</sub> " ID	24
2	MIL6000-3/4	Hose <sup>3</sup> / <sub>4</sub> " 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

Date: 5-6-2024 Part Number: AFC-K017

#### Installation Instructions No. AFC-K017-II-A

Installation of the remote oil filter kit on Boeing Model 75 series aircraft with Curtis-Applicability:

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).
- Remove engine oil return line P/N A75N1-3004 (note this may be a length of 1" Mil 6000 hose). This line runs from 3. the engine to the oil cooler / tank.
- Per Installation Drawing AFC-D-0019, Remove the screw that goes through the end of the firewall stiffener P/N 75-4. 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).
- Per Installation Drawing AFC-D-0019, Measure 3-9/16" out from a vertical line drawn from the C/L of the left 5. 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.
- Per Installation Drawing AFC-D-0064, Slip doubler plate (DBL-10) between the firewall and stiffeners. The long side 6. goes up.
- Per Installation Drawing AFC-D-0019, Bolt oil filter base support angle P/N OFM-11 to firewall and doubler plate using (6ea) 7. provided AN 4-5A bolts.

#### \*\*\*\* SEE WARNING (A) \*\*\*\*

- Per Illustrated Parts List, Install provided AN842-16D fittings (16 or 17) in the oil filter base (4). The fitting in port B 8. 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) \*\*\*\*

- Install one 25" piece of 1" Mil 6000H hose using provided QS100M16H hose clamps. The port "B" is the oil inlet and 10. 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.
- Install oil filter as per manufacturers specifications and safety wire. 11.
- 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.
- Safety wire drain and refill oil tank with oil. (If step #2 is omitted this step is not necessary). 13.
- 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-K017-PL-B

Applicability: 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	<u>Description</u>	<u>Quantity</u>
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.
- 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) 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 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		MOMEN	T - IN/LBS.
EQUIPMENT - ITEM	LBS.	LONG		LONG	
REMOTE OIL FILTER					

#### AIRWOLF FILTER CORP PROPRIETARY

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APPLICATION

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OIL FILTER, LONG, OR EQUIVALENT

(CHAMPION CH48109)

HOSE CLAMP, 3-1/4"

DOUBLER PLATE

WEIGHT:

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					14		DFM-11	OIL FILTER MOUNT PLATE, VERTI	CAL	1
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AN4-5A

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SCALE:

MIL6000-3/4-2 DAMPENER

BOLT

MS20365-428A LOCKNUT

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			(10)				F	ITEM	PART NUMBER	DESCRIPTION	1	QTY
			-(11)				F	1	AN5H-12A	BOLT, 5/16" 1	-1/4" LONG	4
				—		<u> </u>	F	2	AN960-516	WASHER, FLA		8
(4)			(12a)(	(12b)(12c	)(12d) ( <sup>*</sup>	12e)(12f	)	3	MS2035-516	NUT, LOCK	-	4
$\sim$	Marie II			$\bigcirc$			F	4	OFB-18-12	CLAMP PLAT	E, OIL FILTER BA	ASE 1
							F	5a or	OFB-18-13	1.00" BUSHING	G SET	1
(5f) (5e) (5d) (5c) (5b) (5a)			13				F	5b or	OFB-18-14	1.125" BUSHIN		1
							t	5c or	OFB-18-15	1.250" BUSHIN	√G SET	1
							t	5d or	OFB-18-16	1.375" BUSHIN	NG SET	1
	1 7						T	5e or	OFB-18-17	1.500" BUSHIN	NG SET	1
6) -	MOWC	YE IN MALE OF	TD CO				T	5f or	OFB-18-18	1.625" BUSHIN	NG SET	1
	THE WILL	ルト 脚下口	EKU					6	OFB-18-11	ADAPTER BO	DY, OIL FILTER	BASE 1
7	/ D/1	t. Micr	3 700					7	OFS-12	STUD, FILTER		1
<i>/</i> =	T / I	Y., AMEL	J- / WILL					8	AFC-700	FILTER		1
	AVIA	NAVA		<u> </u>			Γ	9	M83248/1-916	VITON O-RIN	G	4
	1,117	HO MOLL					Γ	10	MS28773-916	GASKET, TEFL	ON BOSS	2
		and the second					Γ	11	AN6289-16D	NUT, BULKHE	AD	2
	-	WAX						12a or	AN833-16D	90 BULKHEAD	) FITTING, FLAR	ED ENDS 2
8 –								12b or	AN837-16D	45 BULKHEAD	) FITTING, FLAR	ED ENDS 2
								12c or	AN838-16D	90 BULKHEAD	O FITTING, MIL60	000 HOSE 2
TVDICAL			100					12d or	AN839-16D	45 BULKHEAD	O FITTING, MIL60	000 HOSE 2
TYPICAL ENGINE MOUNT INSTALLATION (	201							12e or	AN807-16D	STRAIGHT TUE	3E TO HOSE	2
CURTISS-WRIGHT POWERED AIRCF								12f or	AN815-16D	UNION		2
CURII33-WRIGHT FOWERED AIRCE	KAFI	- 1						13	AN814-16D	PLUG		2
								14	Q\$100M76H	CLAMP, SCI	REW 5-1/2"	1
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#### AIRWOLF FILTER CORP PROPRIETARY

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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:		NAME	DATE	
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Airwolf Filter Corp.

OFB-15 OIL FILTER ADAPTER,
FIREWALL - HORIZONTAL

DWG. NO. REV AFC-D-0061 IR

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	350	0			2	OFB-1	8-17	1.500" BUSHING :	SET	1
					3	OFB-1	8-11	ADAPTER BODY	OIL FILTER BA	ASE 1
					4	AFC-	700	OIL FILTER		1
					5	Q\$100 <i>i</i>	м52H	5-1/2" HOSE CLA ATTACHMENT	MP SAFETY V	VIRE 1
					6	AN5-	13A	5/16" BOLT, 1-3/8	"LONG	4
					7	AN960	)-516	5/16" FLAT WASH	IER	8
RETURN LINE TO COOLER — (4) —		(5)			8	MS2036	5-516	5/16" LOCKNUT		4
TYPICAL RADIAL ENGINE INSTAL	LLATION SHO	WN MOUNTED ON T-6	6 TEXAN		9a	AN833	-16D	90° BULKHEAD TO	O FLARE	2
		1			9b	AN838	-16D	90° BULKHEAD TO	O HOSE	2
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# FAA APPROVED MODEL LIST (AML) NO. SA01406NY AIRWOLF FILTER CORP

#### FOR INSTALLING

#### REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION	INSTALLATION INSTRUCTIONS		AML
ITEM	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
IIEWI	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
1	ALLIED AG CAT PRODUCTIONS, INC. (Grumman)	G-164 with optional Jacobs engine	1A16	CAR PART 8.10(a)(1) and Amendments Listed in TCDS No. 1A16	AFC-K017	B 11/11/2010*	10/31/2012
2	BOEING AIRPLANE CO (Stearman)	A75J1 (Army PT-18)	A-743	CAR PART 4a and Amendments Listed in TCDS No. A-743	AFC-K017	B 11/11/2010	10/31/2012
3	BOEING AIRPLANE CO (Stearman)	A75L3, 75 (Army PT-13), A75 (Army PT-13A, -13B, -13C), B75 (Navy N2S-5), E75 (Army PT-13D, Navy N2S-5), A75N1 (Army PT-17, -17A, Navy N2S-1, -4), B75N1 (Navy N2S-3), D75N1 (Army PT-27), A75L-300, IB75A, E75N1 with Jacobs engine installed	A-743	CAR PART 4a and Amendments Listed in TCDS No. A-743	AFC-K017	B 11/11/2010	10/31/2012
4	BOEING AIRPLANE CO (Rockwell North American)	NOMAD NA-260 (T-28A)	1A18	CAR PART 3 and Amendments Listed in TCDS No. 1A18	AFC-K017	B 11/11/2010	10/31/2012
5	CESSNA AIRCRAFT COMPANY	195, 195A, 195B	A-790	CAR PART 3 and Amendments Listed in TCDS No. A-790	AFC-K017	B 11/11/2010*	10/29/2001
6	CONSOLIDATED- VULTEE AIRCRAFT CORP,	BT-15	A-2-571	CAR PART 4a.031 and Amendments Listed in TCDS No. A-2-571	AFC-K017	B 11/11/2010*	10/31/2012
7	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-8D (Army UC-81B), SR-8E	ATC 609	ATC 609 as specified	AFC-K017	B 11/11/2010*	10/31/2012
8 -	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-9D (Army UC-81G), SR-9DM, SR-9E, SR-9EM	ATC 625	ATC 625 as specified	AFC-K017	B 11/11/2010*	10/31/2012

#### AIRWOLF FILTER CORP

# FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		ALLATION	AML
ITEM	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
9	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-10D, SR-10E (Army UC-81H), SR-10K	TC 679	TC 679 as specified	AFC-K017	B 11/11/2010*	10/31/2012
10	CURTISS-WRIGHT	A22, A22B, & Navy SNC-1	2-549	CAR PART 4a and Amendments Listed in TCDS No. 2-549	AFC-K017	B 11/11/2010*	10/31/2012
11	CURTISS-WRIGHT	Curtiss Fledgling J-1 Special	2-472	Aero Bulletin 7A and as specified in TCDS No. 2-472	AFC-K017	B 11/11/2010*	10/31/2012
12	CURTISS-WRIGHT	Curtiss Fledgling	ATC 191	ATC 191 as specified	AFC-K017	B 11/11/2010*	10/31/2012
13	CURTISS-WRIGHT	Curtiss Robin 4C-1A	ATC 309	ATC 309 as specified	AFC-K017	B 11/11/2010*	10/31/2012
14	CURTISS-WRIGHT	Curtis Robin	ATC 40 or 68	ATC 40 or 68 as specified	AFC-K017	B 11/11/2010*	10/31/2012
15	CURTISS-WRIGHT	Curtis Robin	ATC 63 or 69	ATC 63 or 69 as specified	AFC-K017	B 11/11/2010*	10/31/2012
16	CURTISS-WRIGHT	Curtis Robin C-1	ATC 143	ATC 143 as specified	AFC-K017	B 11/11/2010*	10/31/2012
17	CURTISS-WRIGHT	Curtis Robin C-2	ATC 144	ATC 144 as specified	AFC-K017	B 11/11/2010*	10/31/2012
18	CURTISS-WRIGHT	Curtis Robin J-1, & J-1 Deluxe	ATC 220	ATC 220 as specified	AFC-K017	B 11/11/2010*	10/31/2012
19	CURTISS-WRIGHT	Kingbird D-2	ATC 348	ATC 348 as specified	AFC-K017	B 11/11/2010*	10/31/2012
20	CURTISS-WRIGHT	Sedan 15-C	ATC 426	ATC 426 as specified	AFC-K017	B 11/11/2010*	10/31/2012
21	CURTISS-WRIGHT	Sedan 15-D	ATC 444	ATC 444 as specified	AFC-K017	B 11/11/2010*	10/31/2012
22	CURTISS-WRIGHT	Travel Air A-14-D	ATC 442	ATC 442 as specified	AFC-K017	B 11/11/2010*	10/31/2012
23	CURTISS-WRIGHT	Travel Air B-14-B	ATC 485	ATC 485 as specified	AFC-K017	B 11/11/2010*	10/31/2012

#### AIRWOLF FILTER CORP

# FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

	-	9	ORIGINAL TYPE	CERTIFICATION		ALLATION	AML
ITEM	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
100 100	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
24	CURTISS-WRIGHT	Travel Air B-14-R	2-403	Aero Bulletin 7A Section 3 and as specified in TCDS No. 2-403	AFC-K017	B 11/11/2010*	10/31/2012
25	CURTISS-WRIGHT	Travel Air B-4000	ATC 146	ATC 146 as specified	AFC-K017	B 11/11/2010*	10/31/2012
26	CURTISS-WRIGHT	Travel Air B9-4000	TC-2-381	Aero Bulletin 7A Section 3 and as specified in TCDS No. 2-381	AFC-K017	B 11/11/2010*	10/31/2012
27	CURTISS-WRIGHT	Travel Air C-4000	ATC 149	ATC 149 as specified	AFC-K017	B 11/11/2010*	10/31/2012
28	CURTISS-WRIGHT	Travel Air D-4000	TC-2-84	Aero Bulletin 7A Section 3 and as specified in TCDS No. TC 2-84	AFC-K017	B 11/11/2010*	10/31/2012
29	CURTISS-WRIGHT	Travel Air D-4D	TC-2-178	Aero Bulletin 7A Section 3 and as specified in TCDS No. TC 2-178	AFC-K017	B 11/11/2010*	10/31/2012
30	CURTISS-WRIGHT	Travel Air E-4000	ATC 188	ATC 188 as specified	AFC-K017	B 11/11/2010*	10/31/2012
31	CURTISS-WRIGHT	Travel Air K-4000	ATC 205	ATC 205 as specified	AFC-K017	B 11/11/2010*	10/31/2012
32	CURTISS-WRIGHT	Travel Air W-4000	ATC 112	ATC 112 as specified	AFC-K017	B 11/11/2010*	10/31/2012
33	CURTISS-WRIGHT	Travel Air S-6000-B	ATC 130	ATC 130 as specified	AFC-K017	B 11/11/2010*	10/31/2012
34	CURTISS-WRIGHT	Travel Air 6-B	ATC 352	ATC 352 as specified	AFC-K017	B 11/11/2010*	10/31/2012
35	CURTISS-WRIGHT	Travel Air 10-D	ATC 278	ATC 278 as specified	AFC-K017	B 11/11/2010*	10/31/2012
36	CURTISS-WRIGHT	Travel Air 12-Q	ATC 401	ATC 401 as specified	AFC-K017	B 11/11/2010*	10/31/2012

#### AIRWOLF FILTER CORP

## FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		ALLATION	AML
ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	CERTIFICATE NUMBER	BASIS FOR ALTERATION	NUMBER	REVISION NO. AND DATE	AMENDMENT DATE
37	CURTISS-WRIGHT	Travel Air 12-W	ATC 407	ATC 407 as specified	AFC-K017	B 11/11/2010*	10/31/2012
38	CURTISS-WRIGHT	Travel Air 16-E	ATC 463	ATC 463 as specified	AFC-K017	B 11/11/2010*	10/31/2012
39	CURTISS-WRIGHT	Travel Air 16-K	ATC 411	ATC 411 as specified	AFC-K017	B 11/11/2010*	10/31/2012
40	CURTISS-WRIGHT	Travel Air 4000	ATC 32	ATC 32 as specified	AFC-K017	B 11/11/2010*	10/31/2012
41	DEAN W. MITCHEL	WACO RPT	A8CE	CAR PART 8 and Amendments Listed in TCDS No. A8CE	AFC-K017	B 11/11/2010*	10/31/2012
42	DOUGLAS AIRCRAFT COMPANY	Army B-18, B-18A, B-18 Special	TC 2-577	CAR PART 4a and Amendments Listed in TCDS No. TC-2-577	AFC-K017	B 11/11/2010*	10/31/2012
43	DOUGLAS AIRCRAFT COMPANY	DC-2 (Army C-32, C-32A, C-34) (Navy R2D-1) (Army C-39, C-42)	ATC 540	ATC 540 as specified	AFC-K017	B 11/11/2010*	10/31/2012
44	DOUGLAS AIRCRAFT COMPANY	UC-67 and B-23	TC 2-576	CAR PART 4 and Amendments Listed in TCDS No. TC-2-576	AFC-K017	B 11/11/2010*	10/31/2012
45	FAIRCHILD INDUSTRIES INC	22, C7A, C7AS American Cirrus Engine C7AM Menasco Engine	ATC 438	ATC 438 as specified	AFC-K017	B 11/11/2010*	10/31/2012
46	FAIRCHILD INDUSTRIES INC	Fairchild 24 C8A	ATC 497	ATC 497 as specified	AFC-K017	B 11/11/2010*	10/31/2012
47	FAIRCHILD INDUSTRIES INC	Fairchild 24 C8D, C8DS	ATC 576	ATC 576 as specified	AFC-K017	B 11/11/2010*	10/31/2012
48	FAIRCHILD INDUSTRIES INC	Fairchild 24 C8E, C8ES	ATC 600	ATC 600 as specified	AFC-K017	B 11/11/2010*	10/31/2012
49	FAIRCHILD INDUSTRIES INC	Fairchild 24 C8F (Army UC-61J), C8FS	ATC 610	ATC 610 as specified	AFC-K017	B 11/11/2010*	10/31/2012
50	FAIRCHILD INDUSTRIES INC	Fairchild 24H, 24HS	ATC 632	ATC 632 as specified	AFC-K017	B 11/11/2010*	10/31/2012

#### AIRWOLF FILTER CORP

#### FOR INSTALLING

#### REMOTE MOUNT OIL FILTER KIT

·			ORIGINAL		INSTALLATION INSTRUCTIONS		. October 29, 2001
ITEM	AIRCRAFT	AIRCRAFT	TYPE CERTIFICATE	CERTIFICATION BASIS FOR	INSTE	REVISION NO.	AML AMENDMENT
TIENT	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
51	FAIRCHILD INDUSTRIES INC	Fairchild 24G (Army UC-61H), 24GS	ATC 633	ATC 633 as specified	AFC-K017	B 11/11/2010*	10/31/2012
52	FAIRCHILD PERSONAL PLANES DIVISION OF FAIRCHILD ENGINE & AIRPLANE CORP	24R9 (Army UC-61C), 24R9S, 24R40 (Army UC-86), 24R40S, 24R46, 24R46S, 24R46A (Army UC-61K)	A-706	CAR PART 4a and Amendments Listed in TCDS No. A-706	AFC-K017	B 11/11/2010*	08/15/2016
53	FAIRCHILD PERSONAL PLANES DIVISION OF FAIRCHILD ENGINE & AIRPLANE CORP	24W-9 (Army UC-61F), 24W-40 (Army UC-61G), 24W-40S, 21W-41 (Army UC-61), 24W-41S, 24W-41A (Army UC-61A), 24W-41AS, 24W-46, 24W-46S	A-707	CAR PART 4a and Amendments Listed in TCDS No. A-707	AFC-K017	B 11/11/2010*	10/31/2012
54	FAIRCHILD- HILLER CORP	M62A (Army PT-19, -19A, -19A-AE, -19A-SL, -19B, -19B-AE), M-62A-3 or -4 (Army PT-26, -26A, -26B), M62B, M62C (Army PT23, -23-AE, -23-HO, -23-SL, -23A, 23A-SL)	A-724	CAR PART 4a and Amendments Listed in TCDS No. A-724	AFC-K017	B 11/11/2010*	10/31/2012
55	GREAT LAKES AIRCRAFT CO	2T-1 American Cirrus Engine	ATC 167	ATC 167 as specified	AFC-K017	B 11/11/2010*	10/31/2012
56	GULFSTREAM AMERICAN CORPORATION	G-44 (Army OA-14, Navy J4F-2), G-44A; SCAN Type 30 (A-734 Note 5 only)	A-734	CAR PART 4a and Amendments Listed in TCDS No. A-734	AFC-K017	B 11/11/2010*	10/31/2012
57	HAMILTON AIRCRAFT COMPANY	T-28R-1, T-28R-2	A1WE	CAR PART 3 and Amendments Listed in TCDS No. A1WE	AFC-K017	B 11/11/2010*	10/31/2012
58	HOWARD AIRCRAFT FOUNDATION	DGA-8 (UC-70C)	TC 612	Aero Bulletin 7A and as specified in TCDS No. TC 612	AFC-K017	B 11/11/2010*	10/31/2012

#### AIRWOLF FILTER CORP

#### FOR INSTALLING

#### REMOTE MOUNT OIL FILTER KIT

		5	ORIGINAL		INSTA	LLATION	: October 29, 2001
			TYPE	CERTIFICATION		RUCTIONS	AML
	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR	111311	REVISION NO.	AMENDMENT
ITEM	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
	HOWARD		NOMBER	Aero Bulletin 7A	NOMBER	ANDDATE	DATE
59	AIRCRAFT	DGA-9 (Army UC-70D),	TC 645	and as specified in	AFC-K017	В	10/21/2012
	FOUNDATION	DGA-12 (Army UC-70A)	10 043	TCDS No. TC 645	Arc-Kui/	11/11/2010*	10/31/2012
	HOWARD			CAR PART 4a and			
60	AIRCRAFT	DGA-15J (Army UC-70B),	A-717		AEC KO17	В	10/01/0010
00	FOUNDATION	DGA-15W	A-/1/	Amendments Listed in	AFC-K017	11/11/2010*	10/31/2012
	HOWARD			TCDS No. A-717			
61	AIRCRAFT	DGA-18, DGA-18K	TO 720	CAR PART 4a and	1 DC 11015	В	
01	FOUNDATION	DGA-18, DGA-18K	TC 739	Amendments Listed in	AFC-K017	11/11/2010*	10/31/2012
	MEYERS			TCDS No. TC 739		W W 15762	
62	INDUSTRIES	OTW OTW 145 OTW 160	1 726	CAR PART 4a and	. 20 7101	В	200
02	INCORPORATED	OTW, OTW-145, OTW-160	A-736	Amendments Listed in	AFC-K017	11/11/2010*	10/31/2012
	INCORPORATED			TCDS No. A-736	27-76-		
	NAVAL AIDODAET	2		CAR PART 4a.031			
63	NAVAL AIRCRAFT	N3N-3	A-2-569	and Amendments	AFC-K017	В	10/31/2012
	FACTORY			Listed in TCDS No.		11/11/2010*	10/31/2012
	ODI INDO			A-2-569			
	ORLANDO	HRS-3/H-19B, H-19D, H-19G,		14 CFR PART 21 and			
64	HELICOPTER	UH-19F, CH-19E, UH-19D	HR1SO '	Amendments Listed in	AFC-K017	В	10/31/2012
	AIRWAYS	011 191, 011 19 <b>2</b> , 011 19 <b>2</b>	intibo	TCDS No. HR1SO	An C-Roll	11/11/2010*	10/31/2012
	(Sikorsky)						
	POLSKIE ZAKLADY	PZL M18	8	14 CFR PART 23 and		В	
65	LOTNIEZE SPOLKA	PZL-M18A	A47EU	Amendments Listed in	AFC-K017	11/11/2010*	10/31/2012
	(PZL)	PZL-M18B		TCDS No. A47EU		11/11/2010*	
	RYAN			CAR PART 4a and		D	
66	AERONAUTICAL	ST-3KR (Army PT-22, PT-22A)	A-749	Amendments Listed in	AFC-K017	B	10/31/2012
/2	CO.			TCDS No. A-749		11/11/2010*	
	THE BOEING	S DC 2		CAR PART 4b and			
67	COMPANY	Super DC-3	6A2	Amendments Listed in	AFC-K017	В	10/31/2012
	(Douglas)	(R4D-8, R4D-8Z)		TCDS No. 6A2		11/11/2010*	C1 R E2 R R
68	THE WACO	ACC 9 700 9	((1		1 DC 1/01=	В	10/00/0001
08	AIRCRAFT CO	AGC-8, ZGC-8	664	TC 664 as specified	AFC-K017	11/11/2010*	10/29/2001
69	THE WACO	450	A TO 41	1 mg 11	170 7704-	В	
09	AIRCRAFT CO	ASO	ATC 41	ATC 41 as specified	AFC-K017	11/11/2010*	10/31/2012
70	THE WACO	1.70	1 mg 100			В	
/0	AIRCRAFT CO	ATO	ATC 123	ATC 123 as specified	AFC-K017	11/11/2010*	10/31/2012
			<u> </u>			11/11/2010	

# FAA APPROVED MODEL LIST (AML) NO. SA01406NY AIRWOLF FILTER CORP

#### FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL		INSTA	LLATION	: October 29, 2001
			TYPE	CERTIFICATION		RUCTIONS	AML
ITEM	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
71	THE WACO AIRCRAFT CO	BSO	ATC 168	ATC 168 as specified	AFC-K017	B 11/11/2010*	10/31/2012
72	THE WACO AIRCRAFT CO	CSO	ATC 240	ATC 240 as specified	AFC-K017	B 11/11/2010*	10/31/2012
73	THE WACO AIRCRAFT CO	СТО	ATC 257	ATC 257 as specified	AFC-K017	B 11/11/2010*	10/31/2012
74	THE WACO AIRCRAFT CO	DSO Hispano A or E	ATC 42	ATC 42 as specified	AFC-K017	B 11/11/2010*	10/31/2012
75	THE WACO AIRCRAFT CO	INF	ATC 345	ATC 345 as specified	AFC-K017	B 11/11/2010*	10/31/2012
76	THE WACO AIRCRAFT CO	RNF	ATC 311	ATC 311 as specified	AFC-K017	B 11/11/2010*	10/31/2012
77	THE WACO AIRCRAFT CO	9	ATC 11	ATC 11 as specified	AFC-K017	B 11/11/2010*	10/31/2012
78	THE WACO AIRCRAFT CO	PCF	ATC 453	ATC 453 as specified	AFC-K017	B 11/11/2010*	10/29/2001
79	THE WACO AIRCRAFT CO	PBA	ATC 464	ATC 464 as specified	AFC-K017	B 11/11/2010*	10/29/2001
80	THE WACO AIRCRAFT CO	PBF	ATC 491	ATC 491 as specified	AFC-K017	B 11/11/2010*	10/29/2001
81	THE WACO AIRCRAFT CO	PLA	ATC 502	ATC 502 as specified	AFC-K017	B 11/11/2010*	10/29/2001
82	THE WACO AIRCRAFT CO	YKS-7 (Army UC-72K), ZKS-7 (Army UC-72M)	TC 626	Aero Bulletin 7A and as specified in TCDS No. TC-626	AFC-K017	B 11/11/2010*	10/29/2001
83	THE WACO AIRCRAFT CO	YKC, YKC-S, YKS-6, ZKS-6	A-533	ATC 533 as specified	AFC-K017	B 11/11/2010*	10/29/2001
84	THE WACO AIRCRAFT CO	YMF, YMF modified by STC SA1000GL	ATC 542	Aero Bulletin 7A and as specified in TCDS No. ATC 542	AFC-K017	B 11/11/2010*	10/29/2001
85	THE WACO AIRCRAFT CO	YOC, YOC-1	ATC 569	ATC 569 as specified	AFC-K017	B 11/11/2010*	10/29/2001
86	THE WACO AIRCRAFT CO	YPF, YPF-6, YPF-7, ZPF-6, ZPF-7	ATC 586	ATC 586 as specified	AFC-K017	B 11/11/2010*	10/29/2001

#### AIRWOLF FILTER CORP

#### FOR INSTALLING

#### REMOTE MOUNT OIL FILTER KIT

Issue Date: October 29, 2001

	Issue Date: October 29, 2						
		朝	ORIGINAL TYPE	CERTIFICATION	INSTALLATION INSTRUCTIONS		AML
ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	CERTIFICATE NUMBER	BASIS FOR ALTERATION	NUMBER	REVISION NO. AND DATE	AMENDMENT
87	THE WACO AIRCRAFT CO	AQC-6, YQC-6, ZQC-6 (Army UC-72H)	TC 598	ATC 598 as specified	AFC-K017	B 11/11/2010*	10/31/2012
88	THE WACO AIRCRAFT CO	ZGC-7	ATC 627	ATC 627 as specified	AFC-K017	B 11/11/2010*	10/29/2001
89	THE WACO AIRCRAFT CO	AVN-8, ZBN-8	TC-677	TC 677 as specified	AFC-K017	B 11/11/2010*	10/31/2012
90	THOMPSON AIRCRAFT SALES (North American, Rockwell)	T-28A	AR-30	CAR PART 8 and Amendments Listed in TCDS No. AR-30	AFC-K017	B 11/11/2010*	10/31/2012
91	UTTERBACK, B (Grumman American)	Navy J2F-3, J2F-4, J2F-5, J2F-6	LTC-17	LTC-17 as specified	AFC-K017	B 11/11/2010*	10/31/2012

\* Or Later FAA Approved Revisions

FAA Approved: '

Roy Boffo

Manager, Propulsion Branch Chicago Aircraft Certification Office

Date Amended: 10/29/01, 10/31/12, and 08/15/16

Airwolf Filter Corp. 15369 Madison Road Middlefield, OH 44062 AFC-K000-ICA Date July 5, 2012 Revision A Date October 25, 2013 Page 1 of 4

#### **INSTRUCTIONS FOR CONTINUED AIRWORTHINESS**

# AIRWOLF FILTER CORP. REMOTE MOUNTED OIL FILTER

On
Aircraft Models Described on
the Applicable AML or Otherwise Approved

Make:	
Model:	
Serial Number:	
Rea Number	

STC SA00024NY STC SA00079NY STC SA00433NY STC SA01282NY STC SA01406NY

#### **RECORD OF REVISIONS**

REV.	EFFECTED	DESCRIPTION	DATE	APPROVED BY
NO.	PAGE(S)			
IR	All	Initial Release	07/05/2012	David Braun, P.E., DER
		Remove reference to Chapter 71 in Chapter 1 Section 4 (page 2). Revise Record of Revisions Table and page headers to agree with accepted		
Α	All	format.	10/25/2013	David Braun, P.E., DER

#### **CHAPTER 1 INTRODUCTION**

1. Type Design Change:

This type design change consists of the installation of the Airwolf Filter Corp. Remote Mount Oil Filter Kit pursuant to STCs SA00024NY, SA00079NY, SA00433NY, SA01282NY and SA01406NY on various aircraft makes and models as approved on the AML associated with the applicable STC. Each STC is tailored for aircraft powered by the engine applications as follows:

STC SA00024NY – Lycoming Engines STC SA00079NY – Continental Engines STC SA00433NY – Franklin Engines

STC SA01282NY - Pratt & Whitney Engines

STC SA01406NY – Curtis-Wright, Jacobs, Kinner, Ranger and Warner Engines.

Many aircraft engines were built with oil screens, or filters mounted on the engine in locations difficult to access. Oil screens are not filters and only prevent the large pieces from going through the engine. Oil filters trap small contaminates (dirt) preventing them from circulating through the engine. Remote Mount Oil Filter Kits replace the screen or difficult to access filter with a replaceable oil filter in a location which minimizes potential oil spills when servicing the oil filter.

2. Scope: The scope of this Instruction for Continued Airworthiness (ICA) focuses

exclusively on Maintenance, Inspection & Airworthiness Limitations of

this FAA-approved type design change.

3. Purpose: The purposes of this ICA are to apprise Owner/Operators who have

modified their airplane pursuant to this type design change: (1) When, where & how to inspect; and (2) When to replace this type design to

assure continued operational safety.

4. Arrangement: This ICA is a single document comprised of five (5) Chapters:

Chapter 1, Introduction;

Chapter 4. Airworthiness Limitations:

Chapter 5, Inspection Requirements & Overhaul Schedule;

Chapter 8, Weight and Balance;

Chapter 12, Servicing.

#### Airwolf Filter Corp. 15369 Madison Road Middlefield, OH 44062

AFC-K000-ICA Date July 5, 2012 Revision A Date October 25, 2013 Page 3 of 4

5. Applicability: This ICA is applicable to the aircraft noted on each STCs AML. In

addition, it is applicable to aircraft which install the remote mounted oil

filter system and receive a field approval.

6. Precautions: There are no Precautionary Notes in Airwolf Filter Corp. AFC-K000-

ICA.

7. Referenced Publications: Airwolf Filter Corp. Installation Instructions as follows:

STC SA00024NY - AFC-K007 STC SA00079NY - AFC-K008 STC SA00433NY - AFC-K010 STC SA01282NY - AFC-K015 STC SA01406NY - AFC-K017

The maintenance and operations manual for the engine and the

aircraft.

8. Distribution: Airwolf Filter Corp, will distribute this ICA to purchasers of Remote Oil

Filter kits, and should the need arise to modify this ICA, the AEG-accepted revision will available to all Owner/Operators. For

Owner/Operators having internet access, the latest AEG- accepted revision to this ICA will be available for downloading from the Airwolf

Filter Corp. website: http://www.airwolf.com/

#### CHAPTER 4 AIRWORTHINESS LIMITATIONS

There are no Airworthiness Limitations associated with this type design change.

The Airworthiness Limitations section is FAA approved and specifies maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA

approved."

Charles L. Smalley

Manager, Chicago ACO

Date 10/29/2013

AFC-K000-ICA
Date July 5, 2012
Revision A
Date October 25, 2013
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#### CHAPTER 5 INSPECTION REQUIREMENTS & OVERHAUL SCHEDULE

#### 1. INSPECTION REQUIREMENTS

Inspect for security at each annual or 100 hr. inspection. After any oil change, always ground run the engine and check for leaks..

At each oil change cut the old filter open with Airwolf AFC-470 oil filter cutter (or equivalent) and inspect for metal contamination or any evidence that may indicate impending engine problems.

#### 2. OVERHAUL SCHEDULE

There are no changes to the overhaul schedule relating to Power Plant associated with this type design change.

#### CHAPTER 8 WEIGHT and BALANCE

#### 1. NET EFFECT:

Installation of the Remote Oil Filter Kit typically results in a five pound addition in weight. Because of the variety of the aircraft covered on each STC's AML, 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. Measure the locations relative to the datum for the moment arms if needed.

Airwolf Filter Corp. recommends that aircraft are weighed and a new weight and balance calculated after all modifications are made.

#### **CHAPTER 12 SERVICING**

#### 1. OIL SYSTEM

Oil system to be serviced in accordance with the most recent available engine operation manual or maintenance manual for the engine installed on the aircraft, and the applicable aircraft maintenance manual. Oil should be changed at least once every 12 months. Prior to each oil change run up the engine to operating temperature to assure complete draining of the oil. At each oil change, cut the old filter open with Airwolf AFC-470 oil filter cutter (or equivalent) and inspect for metal contamination or any evidence that may indicate impending engine problems.

To install the new oil filter, position the filter on the remote mounting adapter and tighten the filter to a torque of 18 to 20 ft. lbs. If a torque wrench is not available, tighten the filter with a suitable wrench, three quarters to one full turn after the filter gasket makes contact with the adapter face. Safety wire the filter to the remote mount adapter.

#### 2. STANDARD HARDWARE

Hardware associated with this type design change are standard AN and MS hardware. Contact Airwolf Filter Corp. for spares and refer to the installation instructions when ordering.