

## AIRWOLF FILTER, CORP

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### TO THE MECHANIC:

This P/N AFC-K007 remote mount oil filter kit incorporates our generic STC approved for all Lycoming powered aircraft up to 450 hp. 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-K007 kit and the STC# SA00024NY. 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 <u>Aircraft Certification</u> <u>Office</u> which will clarify the details. They are very familiar with our filter kits and can address any concerns your FSDO. inspector may have on your particular installation.

FAA - Chicago Aircraft Certification Office (CHI-ACO) Engine and Propeller Division 2300 East Devon Avenue Room 107 Des Plaines, IL 60018 (847) 294-7358 / (817) 294-7834 Fax FAA APPROVED

OCT 03 2012

CHICAGO AIRCRAFT CERTIFICATION OFFICE CENTRAL REGION

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

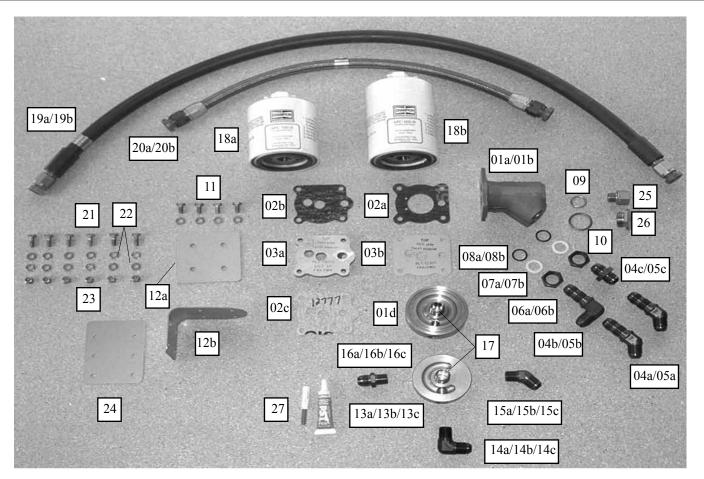
### DATA PERTINENT TO ALL INSTALLATIONS

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

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

Thank you for your help.

Airwolf Filter Corp.



### Oil Filter Kit AFC-K007

Fixed V		ning powered Single and Multi Engine Wing Aircraft less than 450hp. g firewalls of .021 ASTM A527 galvanized steel or equivalent.	Drawing: Revision: Date:	AFC-K007 C 11/11/10
		Parts List No. AFC-K007-PL		
<u>Index</u>	Part Number	<u>Description</u>		Quantity
01a.	LYC-10	Full Flow Engine Adapter, All O235-540 except below		(1)
01b.	LYC-11	Full Flow Engine Adapter, IO720		(1)
01c.	OFB-12	Full Flow Engine Adapter, Single Drive Dual Mags [Old Style]		(1)
01d.	OFB-17	Full Flow Engine Adapter, Single Drive Dual Mags [New Style]		(1)
01e.	M83248/1-230	"O" Ring, Viton, Single Drive Dual Mags [New Style]		(1)
01f.	AN919-15D-SP	Fitting, Reducer, -10 -> -8 Single Drive Dual Mags [New Style]		(2)
02a.	61173	Adapter Base Gasket, O235-540		(1)
02b.	12777	Adapter Base Gasket, IO720		(1)
02c.	12776	Adapter Base Gasket, IO720		(1)
03a.	PLT-28775	Adapter Plate, IO720		(1)
03b.	PLT-12999	Restrictor Plate, O235		(1)
04a.	AN837-8D	Bulkhead Fitting-45°, O235-540		(2)
04b.	AN833-8D	Bulkhead Fitting-90°, O235-540		(Opt)
04c.	AN815-8D	Union, O235-540		(Opt)
05a.	AN837-10D	Bulkhead Fitting-45°, IO720		(2)
05b.	AN833-10D	Bulkhead Fitting-90°, IO720		(Opt)
05c.	AN815-10D	Union, IO720		(Opt)
06a.	AN6289-8D	Bulkhead Nut, O235-540		(2)
06b.	AN6289-10D	Bulkhead Nut, IO720		(2)
07a.	MS28773-08	Boss Gasket, Teflon, O235-540		(2)
07b.	MS28773-10	Boss Gasket, Teflon, IO720		(2)
08a.	MS9387-08	"O" Rings, Viton, O235-540		(2)
08b.	MS9387-10	"O" Rings, Viton, IO720		(2)
09.	MS35769-11	Gasket, Oil Temperature Sensor		(1)
10.	MS35769-21	Gasket, Thermostatic Valve		(1)

Applicability: Lycoming powered Single and Multi Engine Drawing: AFC-K007
Fixed Wing Aircraft less than 450hp. Revision: C

having firewalls of .021 ASTM A527 galvanized steel or equivalent. Date: 11/11/10

### Parts List No. AFC-K007-PL (continued)

<b>Index</b>	Part Number	<b>Description</b>	<b>Quantity</b>
11.	AN4H-4A	Bolts, Drilled Head	(4)
12a.	OFM-10	Horizontal Oil Filter Mount Plate	(1)
12b.	OFM-11	Vertical Oil Filter Mount Plate	(1)
13a.	OFB-10	Oil Filter Base, -8 Ports, O235-540	(1)
13b.	OFB-11	Oil Filter Base, -10 Ports, IO720	(1)
13c.	OFB-15	Oil Filter Base, -12 Ports, GO/GSO/IGSO 435/480/540	(1)
14a.	MS20822-8D	90° Fitting, O235-540	(1)
14b.	MS20822-10D	90° Fitting, IO720	(1)
14c.	MS20822-12D	90° Fitting, GO/GSO/IGSO 435/480/540	(1)
14d.	AN842-16D	90° Fitting, W670	(1)
15a.	MS20823-8D	45° Fitting, O235-540	(1)
15b.	MS20823-10D	45° Fitting, IO720	(1)
15c.	MS20823-12D	45° Fitting, GO/GSO/IGSO 435/480/540	(1)
15d.	AN844-16D	45° Fitting, W670	(1)
16a.	AN816-8D	Nipple, Flared Tube, O235-540	(Opt)
16b.	AN816-10D	Nipple, Flared Tube, IO720	(Opt)
16c.	AN816-12D	Nipple, Flared Tube, GO/GSO/IGSO 435/480/540	(Opt)
16d.	AN840-16D	Nipple, W670	(Opt)
17.	OFS-10	Oil Filter Stud	(1)
18a.	AFC-500	Oil Filter, Std. or Equivalent [Champion CH48108]	(1)
18b.	AFC-600	Oil Filter, Long or Equivalent [Champion CH48109]	(1)
19a.	F13000008-0xxz	Titeflex® Firesleeved Teflon Hose, [-8], O235-540	(Opt)
19b.	F13000010-0xxz	Titeflex® Firesleeved Teflon Hose, [-10], IO720	(Opt)
19c.	F13000012-0xxz	Titeflex® Firesleeved Teflon Hose, [-12], GO/GSO/IGSO 435/480/540	(Opt)
20a.	AE7010000H0xxz	Aeroquip® Hose Assy, [-8], O235-540	(Opt)
20b.	AE7010000J0xxz	Aeroquip® Hose Assy, [-10], IO720	(Opt)
20c.	AE7010000K0xxz	Aeroquip® Hose Assy, [-12], IGO/GSO/IGSO 435/480/540	(Opt)
20d.	MIL6000-1-25	MIL 6000 Hose, 25" Long, [Stearman]	(2)
20e.	MIL6000-3/4-25	MIL 6000 Hose, 25" Long, [Waco]	(2)
21.	AN4-5A	Bolts	(6)
22.	AN960-416	Flat Washers	(16)
23.	MS20365-428A	Locknuts	(6)
24.	DBL-10	Doubler Plate	(1)
25.	OTA-527	Oil Temp Adapter	(Opt)
26.	CAP-1350	Bypass Valve Cap	(Opt)
27.	LYC-12	Full Flow Engine Adapter-Engine Mounted	(1)
28	PLT-200	2" Adapter Plate	(1)
29.	AN74A-6	Drilled Head Bolts	(4)
30.	MS35333-40	1/4" Star Washer	(8)
31.	56707	Loctite® 567 PST Teflon Thread Sealant	(1)
32.	AFC-K007-II	Installation Instructions, Generic	(1)
33.	AFC-K007-MI	Instructions for Continued Airworthiness	(1)
34.	AFC-K007-PL	Parts List	(1)

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

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

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

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

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

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)

### **Installation Instructions No. AFC-K007-A-II**

Applicability: Lycoming powered Single and Multi Engine Drawing: AFC-K007
Fixed Wing Aircraft with O235-O540 engines Revision: C
having firewalls of .021 ASTM A527 galvanized steel or equivalent. 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 the Lycoming P/N 69510, 68974 or 62815 engine oil screen housing from the accessory case.

\*\* WARNING - DO NOT REUSE OIL SCREEN IN LYC-10 ADAPTER \*\*

- 02. Remove oil temperature sensor and thermostatic valve from old oil screen housing.
- 03. Install a new gasket (09) under the head of the oil temperature sensor, reinstall in the adapter-engine (01a). Turn the oil temp sensor until the sealing surfaces are in contact and then tighten an additional 135 degrees. Install a new gasket (10) under the head of the Lycoming P/N 75944 thermostatic valve, reinstall in the adapter-engine (01a), torque to 300 in/lbs and secure.
- Note B: You must use the Bypass Valve Cap (26) if your aircraft uses an older Lycoming engine which does not utilize the newer type Lycoming P/N 53E22144 thermostatic bypass valve (Vernatherm) as your accessory case may not have been drilled by the Lycoming factory to utilize the Vernatherm.
- Note C: If removing the 68974 or 62815 oil screen housing from your engine which uses the older type capillary tube oil temperature probe and you intend to reuse this probe in our LYC-10 Adapter, it may be necessary to use our Oil Temp Adapter (25).
- Onto each bulkhead fitting (04a) or (04b), install in order 1 ea. bulkhead nut (06a), boss gasket (07a), and "O" Ring (08a). If using union (04c), use only "O" Ring (08a). Install each completed assembly into the adapter-engine (01a).

  BE CAREFUL: O-ring and boss gasket must seal in the smooth area between the threaded areas of the bulkhead fitting.
- Note D: Any combination of fittings (04a), (04b), or (04c) is acceptable.
- O5. Install a new gasket (02a) on base of adapter-engine (01a) and reinstall onto the engine accessory case. Torque to specifications 96 in/ lbs. On O235 Series engines, a restrictor plate (03b) must be used to keep the engine oil pressure from following the throttle. Install as pictured using 1 ea. adapter base gasket (02a) on each side of the restrictor plate.
- 06. Using the horizontal oil filter mount (12a.) or vertical oil filter mount (12b.) as a drilling template, locate and drill mounting holes using a letter "F" drill.

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

07a. Secure oil filter mount plate - vertical (12b) to Fwd side of firewall and doubler plate (24) to Aft side of firewall using bolts (21), washers (22), and nuts (23).

OR

07b. Secure oil filter base (13a) to Fwd side of firewall and horizontal oil filter mount plate (12a) to rear side using bolts (11) and washers (22) and secure with .032 MS20995-C safety wire.

### \*\*\*\* SEE WARNING (B) ABOVE \*\*\*\*

08. Install any combination of fitting (14a), (15b), or (16a) into oil filter base (13a). Mount to oil filter mount plate (12a.) or (12b.) using bolts (11), washers (22), and secure with .032 MS20995-C safety wire.

### \*\*\*\* SEE WARNING (C) ABOVE \*\*\*\*

- 09. Determine hose lengths and order appropriate length hoses (19a) or (20a). Last 2 xx's in part number is the length of the hose in inches and the z is the length in eighths of an inch. Ex. P/N for a firesleeved hose 24 7/8" long is F13000008-0247.
- 10. Install assembled hose assy's (19a) or (20a) connecting the "A" port on the Adapter- Engine to the "A" port on the filter base and the "B" port on the Adapter- Engine to the "B" port on the filter base and torque to 270-350 in/ lbs.
- 11. Install oil filter (18a) or (18b) torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 12. Run engine and check for leaks.
- 13. Determine weight and balance, initiate a 337 form, and update the equipment list.

# Applicability: Lycoming powered Single and Multi Engine Drawing: AFC-K007 Fixed Wing Aircraft less than 450hp, using Single Drive Dual Mags Revision: C

Date:

11/11/10

- Note A: Some hoses or wires may have to be rerouted so the oil filter assembly will fit into position. Reference and material per AC 43.13-1B & 2A.
- 01. Remove existing spin on oil filter from rear of accessory case.
- 02. Remove Champion P/N CH48212 Converter Stud from rear of accessory case. DO NOT remove the Champion P/N CH48210 converter plate and gasket.
- 03. For old style OFB-14 (01c) oil filter adapter:

Remove square cut O-Ring from base of old Champion oil filter being removed from accessory case.

having firewalls of .021 ASTM A527 galvanized steel or equivalent.

Reinsall square cut O-Ring previously removed from oil filter into base of oil filter adapter (01c). Apply liberaral amount of Dow Corning DC-4 silicon grease to O-Ring and place in machined groove in oil filter adapter (01c) and install onto the accessory case. O-Ring should extend approximately .040 above the surface of the oil filter adapter (01c)

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

- 04. Install any combination of fitting (14a), (15a), or (16a) into oil filter adapter (01c).
- O5. For new style OFB-17 (01d) oil filter adapter:

  Apply liberal amount of Dow Corning DC-4 silicon grease to O-Ring (01e.) Install O-ring (01e.) into machined groove in oil filter adapter (01d) and install onto the accessory case.
- 06. PlaceO-rings (08b) onto fillings (01f) and install into oil filter adapter (01d).
- 07. Install assembled oil filter adapter (01c) or (01d) onto rear of accessory case. Torque to specifications 16-18 ft./lbs. and secure with .032 MS20995-C safety wire.
- 08. Using the horizontal oil filter mount (12a.) or vertical oil filter mount (12b.) as a drilling template, locate and drill mounting holes using a letter "F" drill.

### \*\*\*\* SEE WARNING (B) ABOVE \*\*\*\*

O9a. Secure oil filter vertical mount plate (12b) to Fwd side of firewall and doubler plate (24) to Aft side of firewall using bolts (21), washers (22), and nuts (23).

<u>OR</u>

09b. Secure oil filter base (13a) to Fwd side of firewall and oil filter mount plate - horizontal (12a) to rear side using bolts (11) and washers (22) and secure with .032 MS20995-C safety wire.

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

10. Install any combination of fitting (14a), (15a), or (16a) into oil filter base (13a). Mount to oil filter mount plate (12a.) or (12b.) using bolts (09), washers (17), and secure with .032 MS20995-C safety wire.

### \*\*\*\*\* SEE WARNING (C) ABOVE \*\*\*\*\*

- 11. Determine hose lengths and order appropriate length hoses (19a) or (20a). Last 2 xx's in part number is the length of the hose in inches and the z is the length in eighths of an inch. Ex. P/N for a firesleeved hose 24 7/8" long is F1300008-0247.
- 12. Install assembled hose assy's (19a) or (20a) connecting the "A" port on the oil filter adapter to the "A" port on the oil filter base and the "B" port on the oil filter adapter to the "B" port on the oil filter base and torque to 270-350 in/ lbs.
- 13. Install oil filter (18a) or (18b), torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 14. Run engine and check for leaks.
- 15. Determine weight and balance, initiate a 337 form, and update the equipment list.

### **Installation Instructions No. AFC-K007-C-II**

Applicability: Lycoming powered Single and Multi Engine **Drawing:** AFC-K007 Fixed Wing Aircraft with IO-720 engines **Revision:** 

having firewalls of .021 ASTM A527 galvanized steel or equivalent.

11/11/10 Date:

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 the Lycoming P/N 73300 engine oil screen housing or P/N 77852 oil filter base assy, from the accessory case. \*\* WARNING - DO NOT REUSE OIL SCREEN IN LYC-11 ADAPTER \*\*
- 02. Remove oil temperature sensor and thermostatic valve from old oil screen housing.
- 03. Install a new gasket (09) under the head of the oil temperature sensor and install into adapter-engine (01b). Turn the oil temp sensor until the sealing surfaces are in contact and then tighten an additional 135 degrees. Install a new gasket (10) under the head of the Lycoming P/N 75944 thermostatic valve, reinstall in the adapter-engine (01b), torque to 300 in/lbs and secure.
- Onto each bulkhead fitting (05a) or (05b), install in order 1 ea. bulkhead nut (06b), boss gasket (07b), and "O" Ring (08b). If using union 04. (05c), use only "O" Ring (08b). Install each completed assembly into the adapter-engine (01b). BE CAREFUL: O-ring and boss gasket must seal in the smooth area between the threaded areas of the bulkhead fitting.
- Note B: Any combination of fittings (05a), (05b), or (05c) is acceptable.

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

05. Onto accessory case, install in order 1 ea. gasket, oil filter adapter (02c), adapter plate IO720 (03), adapter base gasket (02b). Trim gaskets as necessary to assure oil flow returning to the engine(far RH hole) is not restricted and that there is a smooth flow from the gasket (02c), adapter (03) and gasket. (02b). Install assembled adapter-engine (01b) onto the engine accessory case and torque to specifications 96 in/lbs.

### \*\*\*\* SEE WARNING (B) ABOVE \*\*\*\*

- Using the oil filter horizontal mount (12a.) or vertical oil filter mount (12b.) as a drilling template, locate and drill mounting holes using a 06. letter "F" drill.
- Secure vertical oil filter mount plate (12b) to Fwd side of firewall and doubler plate (24) to Aft side of firewall using bolts (21), washers 07a. (22), and nuts (23).

<u>OR</u>

07b. Secure oil filter base (13b) to Fwd side of firewall and horizontal oil filter mount plate (12a) to rear side using bolts (11) and washers (22) and secure with .032 MS20995-C safety wire.

### \*\*\*\* SEE WARNING (C) ABOVE \*\*\*\*\*

Install any combination of fitting (14b), (15b), or (16b) into oil filter base (13b). Mount to oil filter mount plate (12a.) or (12b.) using 08. bolts (11), washers (22), and secure with .032 MS20995-C safety wire.

### \*\*\*\* SEE WARNING (D) ABOVE \*\*\*\*\*

- 09. Determine hose lengths and order appropriate length hoses (19b) or (20b). Last 2 xx's in part number is the length of the hose in inches and the z is the length in eighths of an inch. Ex. P/N for a firesleeved hose 24 7/8" long is F13000010-0247.
- Install assembled hose assy's (19b) or (20b) connecting the "A" port on the Adapter- Engine to the "A" port on the filter base and the "B" 10. port on the Adapter- Engine to the "B" port on the filter base and torque to 270-350 in/lbs.
- 11. Install oil filter (18b), torque per instructions on oil filter, and secure with MS20995-C safety wire.
- Run engine and check for leaks. 12
- Determine weight and balance, initiate a 337 form, and update the equipment list. 13.

	Installation Instructions No. AFC-K007-D-II	
Applica	AFC-K007 Fixed Wing Aircraft with G0/GSO/IGSO 435/480/540 engines having firewalls of .021 ASTM A527 galvanized steel or equivalent.  Drawing: AFC-K007 Revision: C Date: 11/11/10	
Note A:	Some hoses or wires may have to be rerouted so the oil filter assembly will fit into position. Reference and material per AC 43.13-1B & 2A.	
01.	Gain access to the engine compartment.	
02.	Locate the scavenge oil hose connecting the scavenge oil pump to the oil cooler.	
03.	Locate and determine proposed oil filterlocation on firewall.	
04.	Using the vertical oil filter mount (12b.) as a drilling template, locate and drill mounting holes using a letter "F" drill.	
	**** SEE WARNING (A) ABOVE ****	
05.	Secure the vertical oil filter mount (12b.) to Fwd side of firewall and doubler plate (24) to Aft side of firewall using bolts (21), washers (22), and nuts (23).	
	**** SEE WARNING (B) ABOVE ****	
06.	Install any combination of fitting (14c), (15c), or (16c) into oil filter base (13a). Mount to oil filter mount plate (12a.) or (12b.) using b (11), washers (22), and secure with .032 MS20995-C safety wire.	olts
	**** SEE WARNING (C) ABOVE ****	
07.	Determine hose lengths and order appropriate length hoses (19a) or (20a). Last 2 xx's in part number is the length of the hose in inch and the z is the length in eighths of an inch. Ex. P/N for a firesleeved hose 24 7/8" long is F13000012-0247.	es
08.	Install assembled hose assy's (19c) or (20c) connecting the outlet port on the scavenge oil pump to the "B" port on the oil filter base (1 Connect the outlet ["A" port] of the oil filter base (13c) to the inlet of the oil cooler. Torque hoses to 270-350 in/ lbs.	3c).
09.	Install oil filter (18b) torque per instructions on oil filter, and secure with MS20995-C safety wire.	
10.	Run engine and check for leaks.	
11.	Determine weight and balance, initiate a 337 form, and update the equipment list.	

	<b>Installation Instructions No. AFC-K007-F-II</b>		
Applicabili	ty: Lycoming powered Single and Multi Engine Fixed Wing Aircraft less than 450hp. having firewalls of .021 ASTM A527 galvanized steel or equivalent.	Drawing: Revision: Date:	AFC-K007 C 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.	n.	
01.	Remove existing spin-on oil filter from Lycoming P/N 77852 Oil Filter Adapter.		
02.	Screw OFB-17 oil filter adapter completely into existing Lycoming P/N 77852 and see if both sure the gap, add .187 to this dimension and trim the OFS-10 oil filter stud to this length. Whe		

Note B: Lycoming has recently changed the amount of threads inside their P/N 77852 adapter which can cause our OFS-10 stud to bottom out before the actual OFB-17 makes contact with the adapter, requiring the trimming of our OFS-10 stud.

- O3. Apply liberal amount of Dow Corning DC-4 silicon grease to the M83248/1-230 O-Ring. Install the O-ring into machined groove in OFB-17 oil filter adapter and install onto Lycoming P/N 77852 Oil Filter Adapter. Do not tighten completely at this time.
- 04. Place MS9387-10 o-rings onto AN919-15D-SP fittings and install into OFB-17 oil filter adapter.
- Using the OFM-10 horizontal oil filter mount or OFM-11 vertical oil filter mount as a drilling template, locate and drill mounting holes using a letter "F" drill.

### \*\*\*\* SEE WARNING (B) ABOVE \*\*\*\*

Of a. Secure OFM-11 vertical oil filter mount plate to Fwd side of firewall and DBL-10 doubler plate to Aft side of firewall using AN4-5A bolts, AN960-416 washers and MS20365-428A nuts supplied.

### OR

06b. Secure OFB-10 oil filter base to Fwd side of firewall and OFM-10 horizontal oil filter mount plate to rear side using An4H-4A bolts and AN960-416 washers supplied and secure with .032 MS20995-C safety wire.

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

07. Install any combination of fitting (14a), (15a), or (16a) into OFB-10 oil filter base. Mount to OFM-10 or OFM-11 oil filter mount plate using AN4H-4A bolts and AN960-416 washers, and secure with .032 MS20995-C safety wire.

### \*\*\*\* SEE WARNING (C) ABOVE \*\*\*\*

- 08. Determine hose lengths and order appropriate length hoses (19a) or (20a). Last 2 xx's in part number is the length of the hose in inches and the z is the length in eighths of an inch. Ex. P/N for a firesleeved hose 24 7/8" long is F1300008-0247.
- 09. Install assembled hose assy's (19a) or (20a) connecting the "A" port on the oil filter adapter to the "A" port on the oil filter base and the "B" port on the oil filter adapter to the "B" port on the oil filter base and torque to 270-350 in/ lbs.
- 10. Install AFC-500 or AFC-600 oil filter and torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 11. Torque tOFB-17 adapter at this time to specifications 16-18 ft./lbs. and secure with .032 MS20995-C safety wire.
- 12. Run engine and check for leaks.
- 13. Determine weight and balance, initiate a 337 form, and update the equipment list.

### Installation Instructions No. AFC-K007-II-G

Installation of the remote oil filter kit on Boeing Model 75 series aircraft with Lycoming R-680 radial engines.

Drawing: Revision: AFC-K007

Date:

11/11/10

 $\mathbf{C}$ 

- Note A: Some hoses or wires may have to be rerouted so the oil filter assembly will fit into position. Reference and material per AC 43.13-1B & 2A.
- 01. Remove left engine cowl (top and door) and bottom engine cowl.
- 02. Drain oil (optional).
- 03. Remove engine oil return line P/N A75N1-3004 (note this may be a length of 1" Mil 6000 hose). This line runs from the engine to the oil tank.
- 04. Turn the AN842-16D on top of the oil tank to where it points to the engine primer mounted in the step.
- 05. Remove the screw that goes through the end of the firewall stiffener P/N 75-2912. This is located on the left side of the firewall on the aft side. Loosen the screw that goes through the firewall stiffener and the tab welded on the fuselage. This screw is 4-5/16" inboard of the removed screw. (see attached drawing). Drill the hole of the removed screw to 1/4" (.250).
- 06. Measure 3-9/16" out from a vertical line drawn from the C/L of the left engine mount studs. Using reinforcing plate P/N DBL-10 as a template drill the other 5 holes 1/4" (.250). The previously drilled hole is the middle outboard hole.
- 07. Slip reinforcement plate (DBL-10) between the firewall and stiffeners. The long side goes up.
- 08. Bolt oil filter base support angle P/N OFM-11 to firewall and reinforcement plate using (6ea) provided AN 4-5A bolts.

### \*\*\*\* SEE WARNING (B) ABOVE \*\*\*\*

- 09. Install provided AN842-816D fittings in the oil filter base. The fitting in B hole points horizontal with the filter base. The other points over the first fitting.
- Bolt oil filter base (OFB-15) to oil Vertical Filter Mount Plate (12b) using provided AN4H-4A bolts. Oil inlet hole "B" on the oil filter base is positioned to the front of the aircraft. Secure bolts with safety wire.
- 11. Install one 25" piece of 1" Mil 6000H hose using provided QS100M16H hose clamps. The "B" hole on the oil filter base is the oil inlet and comes from the outlet of the scavenge oil pump. The "A" port is the outlet of the oil filter base is the return line to the top of the oil tank. Tighten clamps.
- 12. Install oil filter as per manufacturers specifications and safety wire.
- 13. Using the 2" piece of 3/4" Mil 6000 hose provided, secure to bottom of oil filter with (1) QS100M52W 3-3/4" clamp obtained locally, and locate between bottom of oil filter and existing firewall. This will stengthen the oil filter mount and dampen the vibrations of the engine.
- 14. Safety wire drain and refill oil tank with 4.4 gals. oil. (If step #2 is omitted this step is not necessary).
- 15. Run engine and check for leaks.
- 16. Determine weight and balance, initiate 337 form, and update the equipment list.

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

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-K007-H-II

Applicability: Lycoming powered Single and Multi Engine **Drawing:** AFC-K007 Fixed Wing Aircraft less than 450hp. **Revision:** having firewalls of .021 ASTM A527 galvanized steel or equivalent. 11/11/10 Date:

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 existing oil temperature probe and Vernatherm® [oil cooler bypass valve] from existing Lycoming P/N 77852

Spin-On Oil Filter Adapter or P/N P/N 69510, 68974 or 62815 oil screen screen housing.

02. Remove existing spin on oil filter from Lycoming P/N 77852 Spin-On Oil Filter Adapter or P/N P/N 69510, 68974 or 62815 oil screen

housing from rear accessory case.

03. Using Adapter Base Gasket (02a) provided, install 2" Adapter Plate (28) on rear onto accessory case using original nuts, washers, and

lockwashers, and torque to 96 in/lbs.

**Note B:** This Adapter Plate can only be positioned one way. Make sure holes in adapter match up with oil holes in accessory case.

04. Using Adapter Base Gasket (02a) provided, install Full Flow Engine Adapter (27) onto newly installed 2" adapter plate using drilled head

bolts (29) and flat washers (22) provided, torque to 96 in/lbs, and secure with .032 MS20995-C safety wire.

05. Install a new gasket (09) under the head of the oil temperature sensor and install in the engine adapter (27). If your

temperature sensor is located in a different area on the accy case, use Lycoming P/N 62417 cap to plug off this hole. Turn the oil temp sen-

sor until the sealing surfaces are in contact and then tighten an additional 135 degrees.

Note C: If removing the 68974 or 62815 oil screen housing from your engine which uses the older type capillary tube oil temperature probe

and you intend to reuse this probe in our LYC-12 Adapter, it may be necessary to use our Oil Temp Adapter (25).

06. Install a new gasket (10) under the head of the previously removed Vernatherm®, install in the new engine adapter (27), torque to 300 in/

lbs and secure with MS20995-C safety wire.

**Note D:** You must use the Bypass Valve Cap (26) if your aircraft uses an older Lycoming engine which does not utilize the newer type Ly-

coming P/N 53E22144 thermostatic bypass valve (Vernatherm) as your accessory case may not have been drilled by the Lycoming

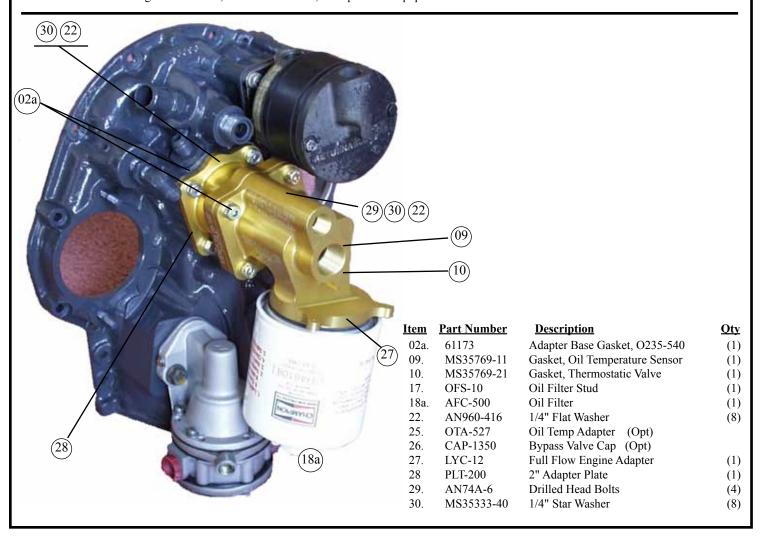
factory to utilize the Vernatherm.

07. Using small amount of silicone grease on oil filter gasket, install oil filter (18a), torque per instructions on oil filter, and secure with

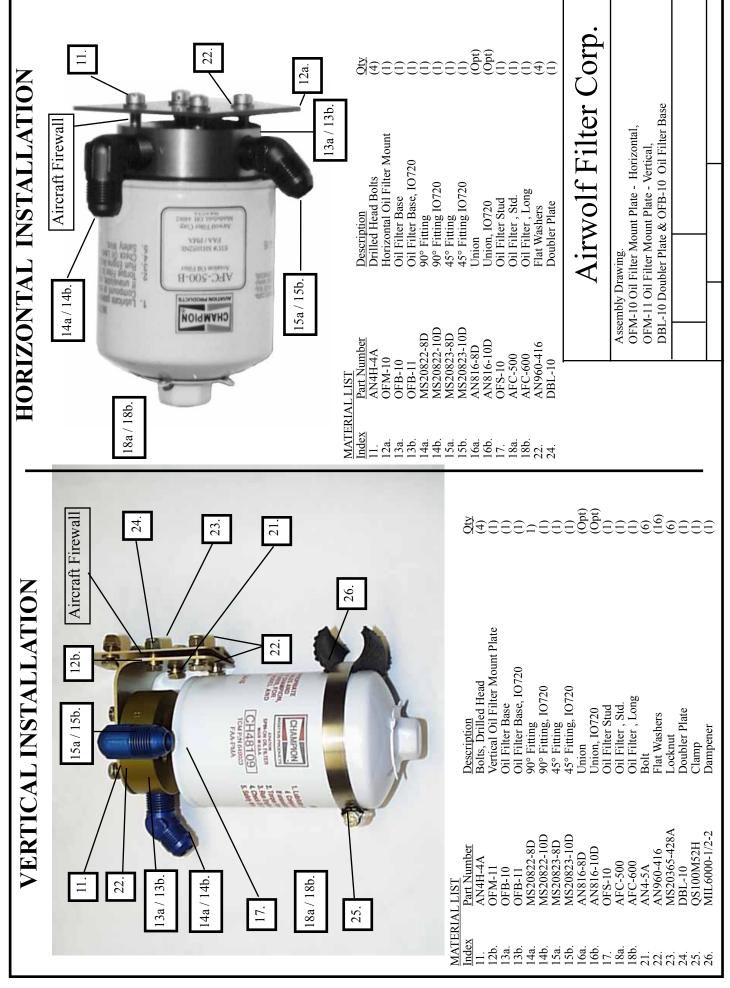
MS20995-C safety wire.

08. Run engine and check for leaks.

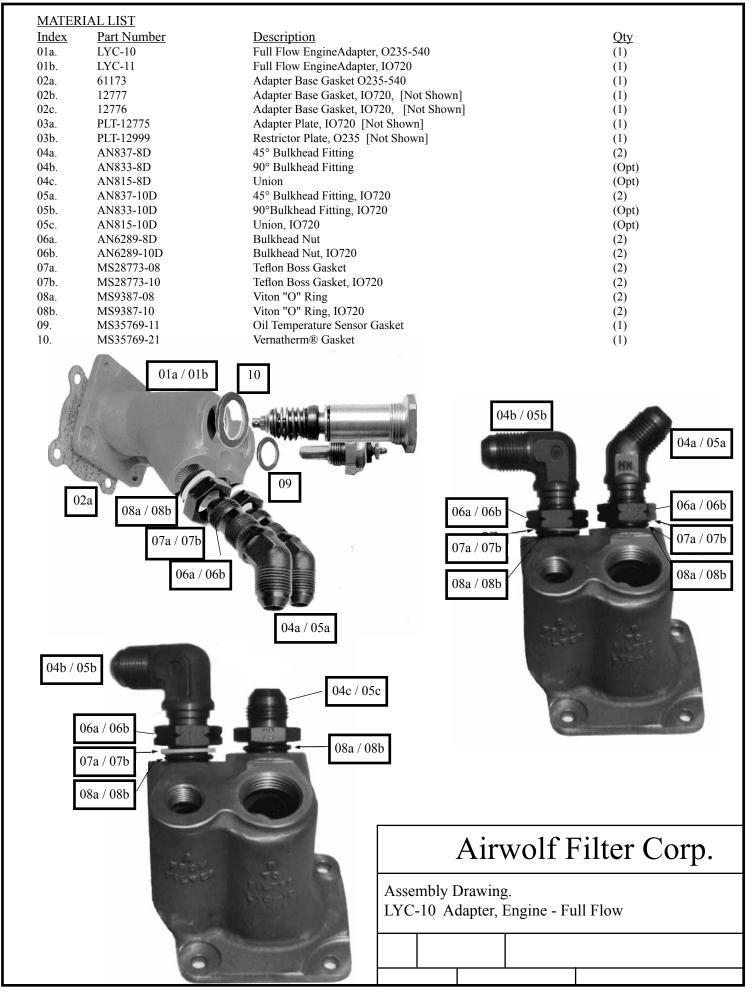
09. Determine weight and balance, initiate a 337 form, and update the equipment list.



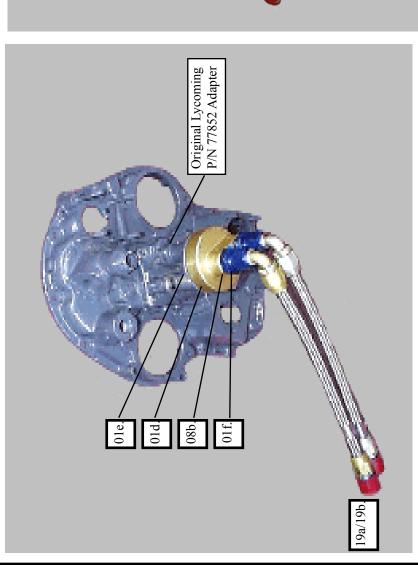
# ASSEMBLY DRAWING# AFC-D-0025

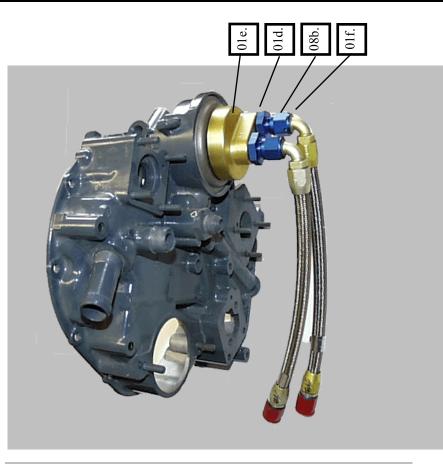


### ASSEMBLY DRAWING# AFC-D-0026



# ASSEMBLY DRAWING# AFC-D-0048





# Airwolf Filter Corp.

OFB-17 Adapter, Engine - Full Flow Assembly Drawing.

Full Flow Engine Adapter- Single Drive Dual Mags [New Style] Viton "O" Ring, Single Drive Dual Mags [New Style] Reducer Fitting, -10 -> -8 Single Drive Dual Mags [New Style]

Viton "O" Rings, 10720 Titeflex® Firesleeved Teflon Hose, [-8], 0235-540

MS9387-10 F13000008-0xxz

AN919-15D-SP M83248/1-230

Index 01d. 01e. 01f. 08b.

Part Number

Ouantity
(1)
(1)
(2)
(2)
(2)
(Opt)



### **Reference Data**

for

**AFC-K007** 

for

STC SA00024NY Oil Filter Kit

**AFC-K007** 

**Dated: 4/2/2021** 

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-K007 remote mount oil filter kit incorporates our STC approved for all Lycoming powered aircraft up to 450 hp. Single and multi-engine fixed wing aircraft having firewalls of .021" ASTM A527 galvanized or equivalent. 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- K007 kit and the STC# SA00024NY. 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. 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 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:

### ALL O-235 & O-290 OPERATORS

ON LYCOMING O-235 & O-290 SERIES ENGINES, LYCOMING MADE A DIFFERENCE IN THE PRODUCTION OF THE REAR ACCESSORY CASES. THE OIL MUST BE METERED THRU A .070 HOLE IN THE OIL SCREEN HOUSING TO PREVENT ALL THE ENGINE OIL FROM DUMPING ONTO THE OIL PUMP IDLER GEARS INSTEAD OF THRU THE OIL SCREEN. IF A REMOTE FILTER IS INSTALLED, THE OIL PRESSURE WILL TEND TO FOLLOW THE THROTTLE. BY USING THIS ENCLOSED RESTRICTOR PLATE, YOU WILL NOT EXPERIENCE THIS PROBLEM. INSTALLATION IS AS FOLLOWS:

- 1. INSTALL NEW 61173 OR GT-61173 ADAPTER GASKET ON ACCESSORY CASE.
- 2. INSTALL LW-12999 OR PLT-12999 RESTRICTOR PLATE.
- 3. INSTALL NEW 61173 OR GT-61173 ADAPTER GASKET.
- 4. INSTALL LYC-10 ADAPTER.

### NOTE.

### COMMON TO ALL INSTALLATIONS

SOME HOSES OR WIRES MAY HAVE TO BE REROUTED SO THE OIL FILTER ASSEMBLY WILL FIT INTO POSITION. REFERENCE AND MATERIAL PER AC 43.13-1B & 2A.

Illustrated Parts List No. AFC-K007-PL, A, B, C, D, & F,

Lycoming Powered Single and Multi-Engine

Applicability:

A- Fixed Wing Aircraft with O-235 - O-540 Engines.

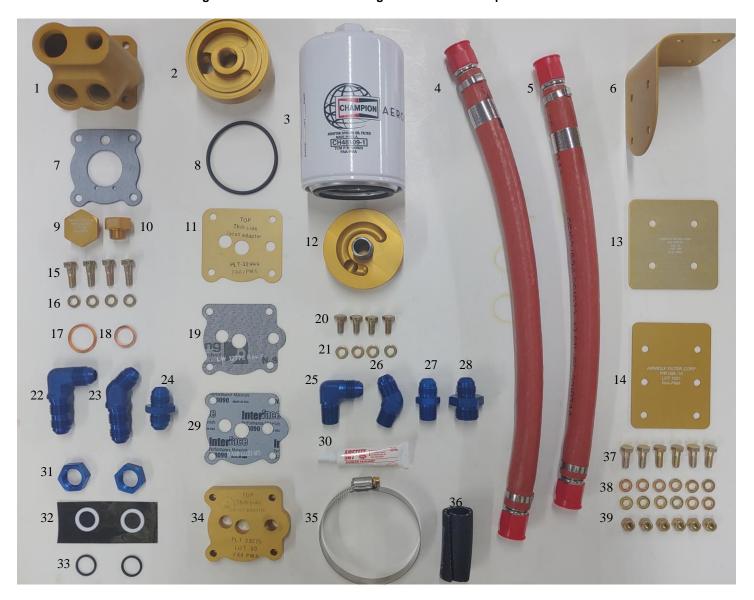
B- Fixed Wing Aircraft with Less than 450hp, using Single Drive Dual Mags.

C-Fixed Wing Aircraft with IO-720 Engines.

D-Fixed Wing Aircraft with GO/GSO/IGSO 435/480/540 Engines.

F- Fixed Wing Aircraft with Less than 450hp

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.



Parts Illustration Lycoming Engine Series

## Parts List No. AFC-K007-PL - Lycoming Engines (see Illustration) Lycoming Engine Series

<u>Lycoming Engine Series</u>					
Index	Part Number	<u>Description</u>	<u>Quantity</u>		
1	LYC-10	Adapter - Engine, Full Flow, All O-235 -540 except below	1		
1	LYC-11	Adapter - Engine, Full Flow, IO-720	1		
2	OFB-17	Full Flow Engine Adapter, Single Drive Dual Mags	1		
3	AFC-500 or AFC-600	Oil Filter, or Equivalent [Champion CH48108/CH48109]	1		
4	TBD	Fire sleeved Hose Assy, TSO'D,	1		
5	TBD	Fire sleeved Hose Assy, TSO'D,	1		
6	OFM-11	Oil Filter Mount Plate - 90°	1		
7	61173 or equivlant	Gasket, Adapter Base, O-235-540	1		
8	M83248/1-230	"O" Ring, Viton, Single Drive Dual Mags	1		
9	CAP-1350	Bypass Valve Cap (opitional)	1		
10	OTA-527	Oil Temp Bulb Adapter	1		
11	PLT-12999	Plate, Restrictor, O-235	1		
12	OFB-10	Oil Filter Base, -8 Ports, O-235-540 (with OFS-10 Installed)	1		
12	OFB-11	Oil Filter Base, -10 Ports, IO-720 (with OFS-10 Installed)	1		
12	OFB-15	Oil Filter Base, -12 Ports, O235-540 (with OFS-10 Installed)	1		
13	OFM-10	Horizontal Oil Filter Mount Plate	1		
14	DBL-10	Plate, Doubler	1		
15	AN74A-6	Bolt	4		
16	AN960-416	Flat Washer	4		
17	MS35769-21	Gasket, Thermostatic Valve	1		
18	MS35769-11	Gasket, Oil Temperature Sensor	1		
19	12776 or equivlant	Gasket, Adapter Base, IO-720	1		
20	AN4H-4A	Bolt	4		
21	AN960-416	Flat Washer	4		
22	AN833-8D	Bulkhead Fitting 90°, O-235-540	Opt		
22	AN833-10D	Bulkhead Fitting 90°, IO-720	Opt		
23	AN837-8D	Bulkhead Fitting 45°, O-235-540	2		
23	AN837-10D	Bulkhead Fitting 45°, IO-720	2		
24	AN815-8D	Union, O-235-540	Opt		
24	AN815-10D	Union, IO-720	Opt		
25	MS20822-8D	Fitting, NPT to Flare - 90°, O-235-540	1		
25	MS20822-10D	Fitting, NPT to Flare - 90°, IO-720	1		
25	MS20822-12D	Fitting, NPT to Flare - 90°, GO/GSO/IGSO 435/480/540	1		
25	AN842-16D	Fitting, NPT to Flare - 90°, W670	1		
26	MS20823-8D	Fitting, NPT to Flare - 45°, O-235-540	1		
26	MS20823-10D	Fitting, NPT to Flare - 45°, IO-720	1		
26	MS20823-10D	Fitting, NPT to Flare - 45°, GO/GSO/IGSO 435/480/540	1		
26	AN844-16D	Fitting, NPT to Flare - 45°, W670	1		
27	AN816-8D	Nipple, NPT to Flare, O-235-540	Opt		
27	AN816-10D	Nipple, NPT to Flare, 0-235-540	Opt Opt		
27	AN816-12D	Nipple, NPT to Flare, IO-720  Nipple, NPT to Flare, GO/GSO/IGSO 435/480/540	Opt Opt		
27	AN840-16D	Nipple, NPT to Flare, GO/GSO/IGSO 435/480/540	Opt Opt		
28	AN919-15-SP	Fitting, Reducer, -10-8 Single Drive Dual Mags	2		
29	12777 or equivlant	Gasket, Adapter Base, IO-720	1		
30 31	567 AN6289-8D	Loctite Thread Sealant  Bulkhead Nut, O-235-540	1 2		
31		,	2		
	AN6289-10D	Bulkhead Nut, IO-720			
32	MS28773-08	Boss Gasket, O-235-540	2		
32	MS28773-10	Boss Gasket, IO-720	2		
33	M83248/1-908	Viton "O" Ring, O-235-540	2		
33	M83248/1-910	Viton "O" Ring, IO-720	2		
34	PLT-28775	Plate, Adapter, IO-720	1		
35	QS100M52H	Clamp	1		
36	MIL6000-3/4-2	Dampener, Vibration	1		
37	AN4-5A	Bolt	6		
38	AN960-416	Flat Washer	12		
39	MS20365-428A	Locknut	6		

### Installation Instructions AFC-K007-II-A

Applicability: Lycoming Powered Single and Multi-Engine

Fixed Wing Aircraft with O-235 - O-540 Engines.

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.

Remove the Lycoming P/N 69510, 68974 or 62815 engine oil screen housing from the accessory case.
 \*\* WARNING - DO NOT REUSE OIL SCREEN IN LYC-10 ADAPTER \*\*

- Remove oil temperature sensor and thermostatic valve from old oil screen housing.
- 3. As per Illustrated Parts List K007-PL (A thru F), Install a new gasket (18) under the head of the oil temperature sensor, install in the adapter-engine (1). Turn the oil temp sensor until the sealing surfaces are in contact and then tighten an additional 135 degrees. Install a new gasket (17) under the head of the Lycoming P/N 75944 thermostatic valve, install in the adapter-engine (1), torque to 300 in/lbs. and secure. (See Drawing AFC-D-0026)
- Note A: You must use the bypass valve Cap (9) if your aircraft uses an older Lycoming engine which does not utilize the newer type Lycoming P/N 53E22144 thermostatic bypass valve (vernatherm) as your accessory case may not have been drilled by the Lycoming factory to utilize the vernatherm.
- Note B: If removing the 68974 or 62815 oil screen housing from your engine which uses the older type capillary tube oil temperature probe and you intend to reuse this probe in our LYC-10 Adapter, it may be necessary to use our Oil Temp Adapter (10).
- 4. As per Illustrated Parts List K007-PL (A thru F), Onto each bulkhead fitting (22) or (23), install in order 1 ea. bulkhead nut (31), boss gasket (32), and "O" Ring (33). If using union (24), use only "O" Ring (33). Install each completed assembly into the adapter-engine (1). (See Drawing AFC-D-0026)

  BE CAREFUL: O-ring and boss gasket must seal in the smooth area between the threaded areas of the bulkhead fitting.
- Note C: Any combination of fittings (22), (23), or (24) is acceptable.
- 5. As per Illustrated Parts List K007-PL (A thru F), Install a new gasket (7) on base of adapter-engine (1) and install onto the engine accessory case. Torque to specifications 96 in/ lbs. On O-235 Series engines, a restrictor plate (11) must be used to keep the engine oil pressure from following the throttle. Install as pictured using 1 ea. adapter base gasket (7) on each side of the restrictor plate.
- 6. As per Illustrated Parts List K007-PL (A thru F), Using the horizontal oil filter mount (13) or vertical oil filter mount (6) as a drilling template, locate and drill mounting holes using a letter "F" drill.
- 7a. As per Illustrated Parts List K007-PL (A thru F), Secure oil filter mount plate vertical (6) to Fwd. side of firewall and doubler plate (14) to Aft side of firewall using bolts (37), washers (38), and nuts (39). (See Drawing AFC-D-0024)

  OR
- 7b. As per Illustrated Parts List K007-PL (A thru F), Secure oil filter base (12) to Fwd. side of firewall and horizontal oil filter mount plate (13) to rear side using bolts (20) and washers (21) and secure with .032 MS20995-C safety wire. (See Drawing AFC-D-0025)

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

8. As per Illustrated Parts List K007-PL - (A thru F), Install any combination of fitting (25), (26), or (27) into oil filter base (12). Mount to oil filter mount plate (6) or (13) using bolts (20), washers (21), and secure with .032 MS20995-C safety wire.

### \*\*\*\*\* SEE WARNING (B) \*\*\*\*\*

- 9. As per Illustrated Parts List K007-PL (A thru F), Determine hose lengths (see Tip on page 4) and order appropriate length hoses (4) & (5). It is recommended that hoses be fire sleeved.
- 10. As per Illustrated Parts List K007-PL (A thru F), Install assembled hose assy's (4) or (5) connecting the "A" port on the engine adapter to the "A" port on the filter base and torque to 270-350 in/ lbs.
- 11. Install oil filter (3) torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 12. Run engine and check for leaks.
- Determine weight and balance, initiate a 337 form, and update the equipment list.

### Installation Instructions AFC -K007-II-B

Applicability: Lycoming Powered Single and Multi-Engine

Fixed Wing Aircraft using Single Drive Dual Magnetos.

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.

1. Remove existing spin on oil filter from rear of accessory case.

- Remove Champion P/N CH48212 Converter Stud from rear of accessory case.
   DO NOT remove the Champion P/N CH48210 converter plate and gasket.
- Lubricate O-Ring (8) with Dow Corning DC-4 compound or equivalent. If unavailable, use engine oil. Install O-ring (8) into machined groove in oil filter adapter (2) and install onto the accessory case.
- 4. Per installation drawing AFC-D-0013, Place O-rings (33) onto fittings (28) and install into Engine Adapter (2).
- 5. Per installation drawing AFC-D-0013, Install assembled Engine Adapter (2) onto rear of accessory case. Torque to specifications 16-18 ft./lbs. and secure with .032 MS20995-C safety wire.
- 6. As per Illustrated Parts List K007-PL (A thru F), Using the horizontal oil filter mount (13) or vertical oil filter mount (6) as a drilling template, locate and drill mounting holes using a letter "F" drill.
- 9a. As per Illustrated Parts List K007-PL (A thru F), Secure oil filter vertical mount plate (6) to Fwd. side of firewall and doubler plate (14) to Aft side of firewall using bolts (37), washers (38), and nuts (39). (See Drawing AFC-D-0024)

### OR

As per Illustrated Parts List K007-PL - (A thru F), Secure oil filter base (12) to Fwd. side of firewall and horizontal oil filter mount plate (13) to rear side using bolts (20) and washers (21) and secure with .032 MS20995-C safety wire. (See Drawing AFC-D-0025)

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

As per Illustrated Parts List K007-PL - (A thru F), Install any combination of fitting (25), (26), or (27) into oil filter base (12). Mount to oil filter mount plate (6) or (13) using bolts (20), washers (21), and secure with .032 MS20995-C safety wire.

### \*\*\*\* SEE WARNING (B) \*\*\*\*

- 11. As per Illustrated Parts List K007-PL (A thru F), Determine hose lengths (see Tip on page 4) and order appropriate length hoses (4) & (5). It is recommended that hoses be fire sleeved.
- As per Illustrated Parts List K007-PL (A thru F), Install assembled hose assy's (4) or (5) connecting the "A" port on the engine adapter to the "A" port on the oil filter base and the "B" port on the engine adapter to the "B" port on the oil filter base and torque to 270-350 in/ lbs.
- 13. Install oil filter (3), torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 14. Run engine and check for leaks.
- 15. Determine weight and balance, initiate a 337 form, and update the equipment list.

### Installation Instructions AFC -K007-II-C

Applicability: Lycoming Powered Single and Multi-Engine

Fixed Wing Aircraft with IO-720 Engines.

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.

Remove the Lycoming P/N 73300 engine oil screen housing or P/N 77852 oil filter base assy. from the accessory case.
 \*\* WARNING - DO NOT REUSE OIL SCREEN IN LYC-11 ADAPTER \*\*

- Remove oil temperature sensor and thermostatic valve from old oil screen housing.
- 3. As per Illustrated Parts List K007-PL (A thru F), Install a new gasket (18) under the head of the oil temperature sensor and install into adapter-engine (1). Turn the oil temp sensor until the sealing surfaces are in contact and then tighten an additional 135 degrees. Install a new gasket (17) under the head of the Lycoming P/N 75944 thermostatic valve, install in the adapter-engine (1), torque to 300 in/lbs. and secure. (See Drawing AFC-D-0026)
- 4. As per Illustrated Parts List K007-PL (A thru F), Onto each bulkhead fitting (22) or (23), install in order 1 ea. bulkhead nut (31), boss gasket (32), and "O" Ring (33). If using union (24), use only "O" Ring (33). Install each completed assembly into the adapter-engine (1). (See Drawing AFC-D-0026)

  BE CAREFUL: O-ring and boss gasket must seal in the smooth area between the threaded areas of the bulkhead fitting.

### Note A: Any combination of fittings (22), (23), or (24) is acceptable.

- 5. As per Illustrated Parts List K007-PL (A thru F), Onto accessory case, install in order 1 ea. gasket (19), adapter plate IO-720 (34), adapter base gasket (29). Trim gaskets as necessary to assure oil flow returning to the engine (far RH hole) is not restricted and that there is a smooth flow from the gasket (19), adapter plate (34) and gasket (29). Install assembled adapter-engine (1) onto the engine accessory case and torque to specifications 96 in/lbs.
- 6. As per Illustrated Parts List K007-PL (A thru F), Using the oil filter horizontal mount (13) or vertical oil filter mount (6) as a drilling template, locate and drill mounting holes using a letter "F" drill.
- 7a. As per Illustrated Parts List K007-PL (A thru F), Secure vertical oil filter mount plate (6) to Fwd. side of firewall and doubler plate (14) to Aft side of firewall using bolts (37), washers (38), and nuts (39). (See Drawing AFC-D-0024)

  OR
- 7b. As per Illustrated Parts List K007-PL (A thru F), Secure oil filter base (12) to Fwd. side of firewall and horizontal oil filter mount plate (13) to rear side using bolts (20) and washers (21) and secure with .032 MS20995-C safety wire. (See Drawing AFC-D-0025)

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

8. As per Illustrated Parts List K007-PL - (A thru F), Install any combination of fitting (25), (26), or (27) into oil filter base (12). Mount to oil filter mount plate (13) or (6) using bolts (20), washers (21), and secure with .032 MS20995-C safety wire.

### \*\*\*\* SEE WARNING (B) \*\*\*\*

- 9. As per Illustrated Parts List K007-PL (A thru F), Determine hose lengths (see Tip on page 4) and order appropriate length hoses (4) & (5). It is recommended that hoses be fire sleeved.
- 10. As per Illustrated Parts List K007-PL (A thru F), Install assembled hose assy's (4) or (5) connecting the "A" port on the A engine adapter to the "A" port on the filter base and the "B" port on the engine adapter to the "B" port on the filter base and torque to 270-350 in/ lbs.
- 11. Install oil filter (3), torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 12. Run engine and check for leaks.
- Determine weight and balance, initiate a 337 form, and update the equipment list.

### Installation Instructions AFC -K007-II-D

Applicability: Lycoming Powered Single and Multi-Engine

Fixed Wing Aircraft with GO/GSO/IGSO 435/480/540 Engines.

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.

1. Gain access to the engine compartment.

- 2. Locate the scavenge oil hose connecting the scavenge oil pump to the oil cooler.
- 3. Locate and determine proposed oil filter location on firewall.
- 4. As per Illustrated Parts List K007-PL (A thru F), Using the vertical oil filter mount (6) as a drilling template, locate and drill mounting holes using a letter "F" drill.
- 5. As per Illustrated Parts List K007-PL (A thru F), Secure the vertical oil filter mount (6) to Fwd. side of firewall and doubler plate (14) to Aft side of firewall using bolts (37), washers (38), and nuts (39). (See Drawing AFC-D-0024)

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

6. As per Illustrated Parts List K007-PL - (A thru F), Install any combination of fitting (25), (26), or (27) into oil filter base (12). Mount to oil filter mount plate (6) or (13) using bolts (20), washers (21), and secure with .032 MS20995-C safety wire. (See Drawing AFC-D-0025)

### \*\*\*\*\* SEE WARNING (B) \*\*\*\*\*

- 7. As per Illustrated Parts List K007-PL (A thru F), Determine hose lengths (see Tip on page 4) and order appropriate length hoses (4) & (5). It is recommended that hoses be fire sleeved.
- 8. As per Illustrated Parts List K007-PL (A thru F), Install assembled hose assy's (4) or (5) connecting the outlet port on the scavenge oil pump to the "B" port on the oil filter base (12). Connect the outlet "A" port of the oil filter base (12) to the inlet of the oil cooler. Torque hoses to 270-350 in/lbs.
- 9. Install oil filter (3) torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 10. Run engine and check for leaks.
- Determine weight and balance, initiate a 337 form, and update the equipment list.

### Installation Instructions AFC -K007-II-F

Applicability: Lycoming Powered Single and Multi-Engine

Fixed Wing Aircraft less than 450hp Engines.

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.

1. Remove existing spin-on oil filter and stud from Lycoming P/N 77852 Oil Filter Adapter.

- 2. As per Illustrated Parts List K007-PL (A thru F), Screw OFB-17 oil filter adapter (2) completely into existing Lycoming P/N 77852 and see if both parts make contact. If any gap exists, measure the gap, add .187 to this dimension and trim the OFS-10 oil filter stud to this length. When trimmed to the correct length the OFB-17 (2) will contact the 77852 adapter without the "O"-ring installed in our OFB-17 adapter. (See Drawing AFC-D-0013)
- Note B: Lycoming has recently changed the number of threads inside their P/N 77852 adapter which can cause our OFS-10 stud to bottom out before the actual OFB-17 (2) contacts the adapter, requiring the trimming of our OFS-10 stud.
- 3. As per Illustrated Parts List K007-PL (A thru F), Apply liberal amount of Dow Corning DC-4 silicon grease to the M83248/1-230 O-Ring (8). Install the O-ring into machined groove in OFB- 17 Engine Adapter (2) and install onto Lycoming P/N 77852 Oil Filter Adapter. (See Drawing AFC-D-0013)
- 4. Torque OFB-17 adapter (2) at this time to specifications 16-18 ft./lbs. and secure with .032 MS20995-C safety wire.
- 5. As per Illustrated Parts List K007-PL (A thru F), Place M83248/1-910 O-rings (33) onto AN919-15D-SP fittings (28) and install into OFB-17 oil filter adapter (2).
- 6. As per Illustrated Parts List K007-PL (A thru F), Using the OFM-10 horizontal oil filter mount (13) or OFM-11 vertical oil filter mount (6) as a drilling template, locate and drill mounting holes using a letter "F" drill.
- 7a. As per Illustrated Parts List K007-PL (A thru F), Secure OFM-11 vertical oil filter mount plate (6) to Fwd. side of firewall and DBL-10 doubler plate (14) to Aft side of firewall using AN4-5A bolts (37), AN960-416 washers (38), and MS20365-428A nuts (39) supplied. (See Drawing AFC-D-0024)

  OR
- 7b. As per Illustrated Parts List K007-PL (A thru F), Secure OFB-10 oil filter base (12) to Fwd. side of firewall and OFM-10 horizontal oil filter mount plate (13) to rear side using AN4H-4A bolts (20) and AN960-416 washers (21) supplied and secure with .032 MS20995-C safety wire. (See Drawing AFC-D-0025)

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

8. As per Illustrated Parts List K007-PL - (A thru F), Install any combination of fitting (25), (26), or (27) into OFB-10 oil filter base (12). Mount to OFM-10 (13) or OFM-11 oil filter mount plate (6) using AN4H-4A bolts (20) and AN960-416 washers (21), and secure with .032 MS20995-C safety wire.

### \*\*\*\*\* SEE WARNING (B) \*\*\*\*\*

- 9. As per Illustrated Parts List K007-PL (A thru F), Determine hose lengths (see Tip on page 4) and order appropriate length hoses (4) & (5). It is recommended that hoses be fire sleeved.
- 10. As per Illustrated Parts List K007-PL (A thru F), Install assembled hose assy's (4) or (5) connecting the "A" port on the engine adapter to the "A" port on the oil filter base and the "B" port on the engine adapter to the "B" port on the oil filter base and torque to 270-350 in/lbs.
- 11. Install AFC-500 or AFC-600 oil filter (3) and torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 12. Run engine and check for leaks.
- 13. Determine weight and balance, initiate a 337 form, and update the equipment list

### Parts List No. AFC-K007-PL-G

Applicability: Installation of the remote oil filter kit on Boeing Model 75 series aircraft with Lycoming R-680 Radial engines.



Parts Illustration Lycoming R-680 Radial Engine

### Parts List No. AFC-K007-PL-G

Index	Part Number	<u>Description</u>	<u>Quantity</u>
1	MIL-6000	Hose 1"	25
2	MIL-6000	Hose 1"	25
3	OFB-15	Oil Filter Base, -12, 9with OFS-10 Installed)	1
4	QS100M16H	Clamp, Hose , 1"	4
5	AN842-16D	Fitting, NPT to Hose, 90° Elbow	2
6	AFC-600	Oil Filter, or Equivalent [Champion CH48109]	1
7	AN960-416	Washer, Flat, 1/4"	4
8	AN4H-4A	Bolt, 1/4" x 1/2" Long	4
9	OFM-11	Oil Filter Mount, Vertical	1
10	DBL-10	Plate, Doubler	1
11	MS20365-428A	Nut, Locking	6
12	AN960-416	Washer, Flat, ¼"	12
13	AN4-5A	Bolt, 1/4" X 5/8" Long	6
14	QS100M52H	Clamp, Hose , 3 - 1/4"	1
15	567	Loctite Thread Sealant	1
16	MIL-6000	Hose ¾" x 2" Vibration Dampener	1

### Installation Instructions AFC -K007-II-G

Applicability: Installation of the remote oil filter kit on Boeing Model 75 series aircraft with Lycoming R-680 Radial engines.

- 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 tank.
- 4. Turn the AN842-16D on top of the oil tank to where it points to the engine primer mounted in the step.
- 5. 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 approximately 4-3/4" inboard of the removed screw. (see drawing AFC-D-0019). Drill the hole of the removed screw to 1/4" (.250).
- 6. As per Illustrated Parts List K007-PL -G, Measure 3-9/16" out from a vertical line drawn from the C/L of the left engine mount studs. Using reinforcing plate P/N DBL-10 (10) as a template drill the other 5 holes 1/4" (.250). The previously drilled hole is the middle outboard hole. (see drawing AFC-D-0019).
- 7. Slip reinforcement plate DBL-10 (10) between the firewall and stiffeners. The long side goes up. (see drawing AFC-D-0024).
- 8. Bolt oil filter base support angle P/N OFM-11 to firewall and reinforcement plate using(6ea) provided AN 4-5A bolts (see drawing AFC-D-0024) (see drawing AFC-D-0019).

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

- 9. As per Illustrated Parts List K007-PL -G, Install provided AN842-816D fittings (5) in the oil filter base. The fitting in B port points horizontal with the filter base. The other points over the first fitting.
- As per Illustrated Parts List K007-PL -G, Bolt oil filter base OFB-15 (3) to Vertical Filter Mount Plate OFM-11(9) using provided AN4H-4A bolts (8) and Washers AN960-416 (7). Oil inlet port "B" on the oil filter base is positioned to the front of the aircraft. Secure bolts with safety wire (see drawing AFC-D-0019).
- 11. As per Illustrated Parts List K007-PL -G, install one 25" piece of 1" Mil 6000H hose (1) using provided QS100M16H hose clamps (4). The "B" port on the oil filter base is the oil inlet and comes from the outlet of the scavenge oil pump. The "A" port is the outlet of the oil filter base is the return line to the top of the oil tank. Tighten clamps.
- 12. Install oil filter (6) torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 13. As per Illustrated Parts List K007-PL -G, Using the 2" piece of 3/4" Mil 6000 hose (16) provided, secure to bottom of oil filter with QS100M52H Clamp, 3-3/4" (14) and locate between bottom of oil filter and existing firewall. This will strengthen the oil filter mount and dampen the vibrations of the engine.
- 14. Safety wire drain and refill oil tank with 4.4 gals. oil. (If step #2 is omitted this step is not necessary).
- 15. Run engine and check for leaks.
- 16. Determine weight and balance, initiate 337 form, and update the equipment list.

### \*\*\*\*\* NOTE OF CAUTION \*\*\*\*\*

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

THE OIL ROUTING AND OIL FLOW IS ALWAYS.

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

### Parts List No. AFC-K007-PL-H

Applicability: Lycoming Powered Single and Multi-Engine

Fixed Wing Aircraft less than 450hp Engines.

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.



### Parts Illustration Lycoming Engine

### Parts List No. AFC-K007-PL-H

Index	Part Number	Description	<u>Quantity</u>
1	PLT-200	2" Adapter Plate	1
2	61173 or GT-61173	Gasket, Adapter Base, O-235-540	2
3	AFC-500	Filter, Oil	1
4	LYC-12	Adapter, Full Flow Engine (with OFS-10 Installed)	1
5	MS35769-21	Gasket, Thermostatic Valve	1
6	MS35769-11	Gasket, Oil Temperature Sensor	1
7	CAP-1350	Cap, Bypass Valve	Opt.
8	OTA-527	Adapter, Oil Temp	Opt.
9	MS35333-40	Washer, Star Locking, 1/4"	4
10	AN960-416	Washer, Flat 1/4"	8
11	AN74A-6	Bolts, Drilled Head	4

### **Installation Instructions AFC -K007-II-H**

Applicability: Lycoming Powered Single and Multi-Engine

Fixed Wing Aircraft less than 450hp Engines.

Having firewalls of .021" ASTM A527 galvanized steel or equivalent.

1. Remove existing oil temperature probe and Vernatherm® [oil cooler bypass valve] from existing Lycoming P/N 77852 Spin-On Oil Filter Adapter or P/N 69510, 68974 or 62815 oil screen housing.

2. Remove existing spin on oil filter from Lycoming P/N 77852 Spin-On Oil Filter Adapter or P/N 69510, 68974 or 62815 oil screen housing from rear accessory case.

### **Note A:** See AFC-D-0001 Installation Drawing

3. As per Illustrated Parts List K007-PL -G, Using Adapter Base Gasket (2) provided, install 2" Adapter Plate (1) onto rear accessory case using original nuts, washers, and lock washers, or supplied washers as needed and torque to 96 in/lbs.

Note B: This Adapter Plate can only be positioned one way. Make sure holes in adapter match up with oil holes in accessory case.

- 4. As per Illustrated Parts List K007-PL -G, Using Adapter Base Gasket (2) provided, install Full Flow Engine Adapter (4) onto newly installed 2" adapter plate (1) using drilled head bolts (9) and flat washers (8) provided, torque to 96 in/lbs., and secure with .032 MS20995-C safety wire.
- 5. As per Illustrated Parts List K007-PL -G, install a new gasket (6) under the head of the oil temperature sensor and install in the engine adapter (4). (If your temperature sensor is in a different location on the accessory case, use Lycoming P/N 62417 cap to plug off this hole.) Turn the oil temp sensor until the sealing surfaces are in contact and then tighten an additional 135 degrees.

Note C: If removing the 68974 or 62815 oil screen housing from your engine which uses the older type capillary tube oil temperature probe and you intend to reuse this probe in our LYC-12 Adapter, it may be necessary to use our Oil Temp Adapter (8).

6. As per Illustrated Parts List K007-PL -G, install a new gasket (5) under the head of the previously removed Vernatherm®, install in the engine adapter (4), torque to 300 in/ lbs. and secure with MS20995-C safety wire.

Note D: You must use the bypass valve Cap (7) if your aircraft uses an older Lycoming engine which does not utilize the newer type Lycoming P/N 53E22144 thermostatic bypass valve (vernatherm) as your accessory case may not have been drilled by the Lycoming factory to utilize the vernatherm.

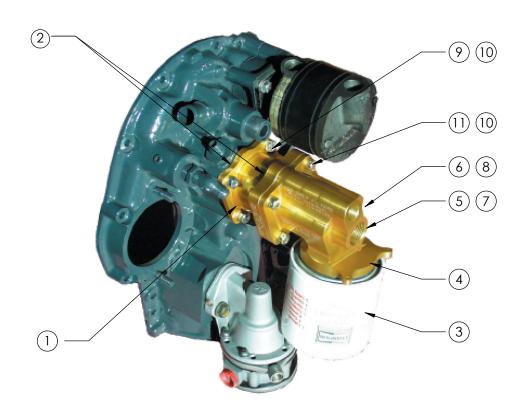
- 7. Install oil filter (3), torque per instructions on oil filter, and secure with MS20995-C safety wire.
- 8. Run engine and check for leaks.
- 9. Determine weight and balance, initiate a 337 form, and update the equipment list.

### WEIGHT AND BALANCE REPORT

SURPLUS EQUIPMENT	WEIGHT	ARM-	-INCHES	MOMEN	T - IN/LBS.
EQUIPMENT - ITEM	LBS.	LONG		LONG	
REMOTE OIL FILTER	4.25				

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REVISIONS				
REV.	DESCRIPTION	BY	DATE	

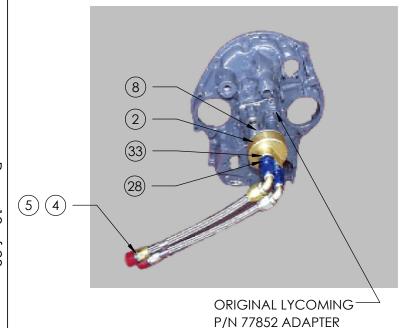


	MATERIAL LIST								
ITEM	PART NUMBER	DESCRIPTION	QT Y.						
1	PLT-200	2" ADAPTER PLATE	1						
2	61173 OR Equivalent	ADAPTER BASE GASKET, 0235-540	2						
3	AFC-500	OIL FILTER	1						
4	LYC-12	FULL FLOW ENGINE ADPATER	1						
5	MS35769- 21	GASKET, THERMOSTATIC VALVE	1						
6	MS35769- 11	GASKET, OIL TEMPERATURE SENSOR	1						
7	CAP-1130	BYPASS VALVE CAP (OPT)	1						
8	OTA-527	OIL TEMP ADAPTER (OPT)	1						
9	MS35333- 40	1/4" STAR WASHER	4						
10	AN960-416	1/4" FLAT WASHER	8						
11	AN74A-6	BOLT, DRILLED HEAD	4						

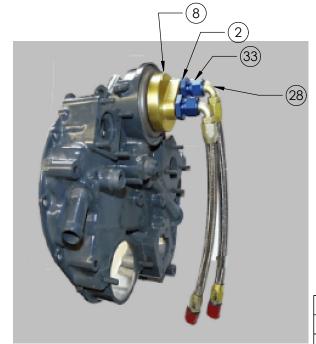
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		ANGULAR ±0°30'	MFG APPR.				ENGINE - FULL FLO			
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	REVISIONS		
REV.	DESCRIPTION	BY	DATE



5



		MATERIAL LIST	
ITEM	PART NUMBER	DESCRIPTION	QTY.
2	OFB-17	FULL FLOW ENGINE ADAPTER - SINGLE DRIVE DUAL MAGS (NEW STYLE)	1
4	TBD	FIRESLEEVED HOSE ASSY, TSO'D	(OPT)
5	TBD	FIRESLEEVED HOSE ASSY, TSO'D	(OPT)
8	M83248/1-230	VITON "O" RING, SINGLE DRIVE DUAL MAGS (NEW STYLE)	1
28	AN919-15D-SP	REDUCER FITTING, -10 -> -8 SINGLE DRIVE DUAL MAGS (NEW STYLE)	2
33	M83248/1-910	VITON "O" RINGS,	2

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		ANGULAR ±0°30'	MFG APPR.			
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		MATERIAL	•	•	•	SIZE
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**APPLICATION** 

Airwolf Filter Corp.

ASSEMBLY DRAWING OFB-17 ADAPTER, ENGINE - FULL FLOW

SCALE: WEIGHT: SHEET 1 OF 1

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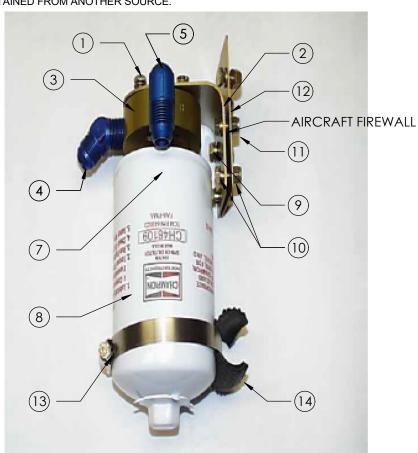
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	REVISIONS		
REV.	DESCRIPTION	BY	DATE



		MATERIAL LIST	
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	AN4H-4A	BOLT, DRILLED HEAD	4
2	OFM-11	OIL FILTER MOUNT PLATE - 90°	1
3а	OFB-10	OIL FILTER BASE	1
3b	OFB-11	OIL FILTER BASE, IO720	1
4a	MS20823-8D	FITTING, 45°	1
4b	MS20823-10D	FITTING, 45°, IO720	1
5a	MS20822-8D	FITTING, 90°	1
5b	MS20822-10D	FITTING, 90°, IO720	1
6a	AN816-8D	UNION	OPT
6b	AN816-10D	UNION, IO720	OPT
7	OFS-10	OIL FILTER STUD	1
8a	AFC-500	OIL FILTER	1
8b	AFC-600	OIL FILTER, LONG	1
9	AN4-5A	BOLT	6
10	AN960-416	FLAT WASHER	16
11	MS20365-428A	LOCKNUT	6
12	DBL-10	DOUBLER PLATE	1
13	Q\$100M52H	CLAMP	1
14	MIL6000-3/4-2	DAMPENER	1
	NAME DATE	A: 15 E:11 O	

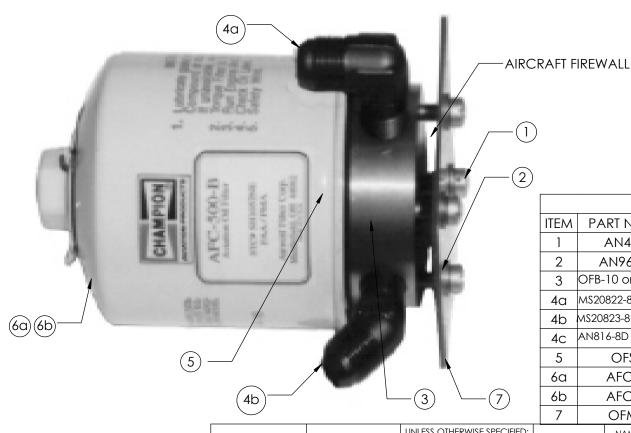
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		DIMENSIONS ARE IN INCHES TOLERANCES:	DRAWN	GM	12/28/2020	<b>'</b>	tii Woli i litoi	COI	J.	
		1 PLACE ±.030 2 PLACE ±.010	APPR. BY	BDA	12/28/2020	TITLE: A	SSEMBLY DRAV	VING,		
		3 PLACE ±.005 4 PLACE ±.0005	ENG APPR.			OFM-11	OIL FILTER MO	UNT PL	ATE -	
		ANGULAR ±0°30'	MFG APPR.				AL, DBL-10 DOL			7
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.			}	OFB-10 or OF OIL FILTER BA			2
		MATERIAL				SIZE DWG	G. NO.		REV	4
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THIS DOCUMENT IS THE PROPERTY OF AIRWOLF FILTER CORP AND IS DELIVERED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE DISCLOSED OR REPRODUCED IN WHOLE OR IN PART OR USED FOR MANUFACTURE FOR ANYONE OTHER THAN AIRWOLF FILTER CORP WITHOUT ITS WRITTEN CONSENT, AND THAT NO RIGHT IS GRANTED TO DISCLOSE OR SO USE ANY INFORMATION CONTAINED IN SAID DOCUMENT. THIS RESTRICTION DOES NOT LIMIT THE RIGHT TO USE INFORMATION OBTAINED FROM ANOTHER SOURCE.

	REVISIONS		
REV.	DESCRIPTION	BY	DATE
Α	REDRAWN IN SOLIDWORKS	GM	12/28/2020



		MATERIAL LIST	
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	AN4H-4A	BOLT, DRILLED HEAD	4
2	AN960-416	FLAT WASHER	4
3	OFB-10 or OFB-11	OIL FILTER BASE	1
4a	MS20822-8D or - 10D	FITTING, 90°	1
4b	MS20823-8D or -10D	FITTING, 45°	1
4c	AN816-8D or -10D	UNION	OPT
5	OFS-10	OIL FILTER STUD	1
6a	AFC-500	OIL FILTER	1
6b	AFC-600	OIL FILTER, LONG	1
7	OFM-10	OIL FILTER MOUNT PLATE	1

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE		
		DIMENSIONS ARE IN INCHES TOLERANCES:	DRAWN	GM	12/28/2020		
		1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'	APPR. BY	BDA	12/28/2020	TITLE:	
			ENG APPR.			OF <i>N</i> H	
			MFG APPR.				
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.				
		MATERIAL				SIZE	Ī
NEXT ASSY	USED ON	FINISH	COMMENTS:			A	
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HORIZONTAL, & OFB-10 or -11 OIL FILTER BASE

AFC-D-0025 REV

Airwolf Filter Corp.

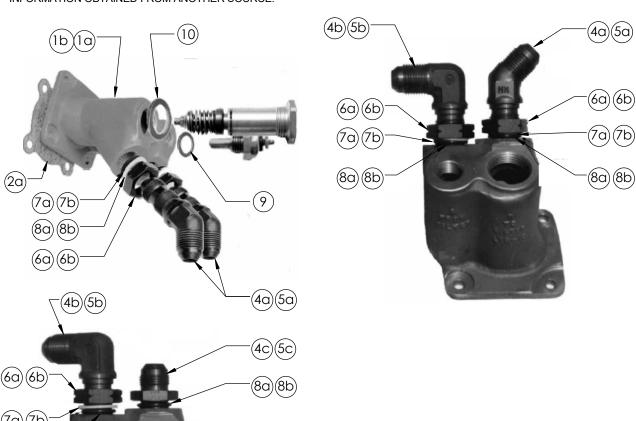
ASSEMBLY DRAWING, OFM-10 OIL FILTER MOUNT PLATE -

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	REVISIONS							
REV.	DESCRIPTION	BY	DATE					
Α	REDRAWN IN SOLIDWORKS	GM	12/28/2020					



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		DESCRIP'	ΓΙΟΝ	BY	DAT	E	L N		
	RED	DRAWN IN SC	LIDWORKS	GM	12/28/20	20			
							Number: AFC-K00		
			MATERIAL LIST						
	ITEM	PART NUMBER	DESCRIPTION			QTY.	07		
	1a	LYC-10	FULL FLOW ENGINE ADPATER,	JLL FLOW ENGINE ADPATER, O235-540 1					
	1b	LYC-11	FULL FLOW ENGINE ADPATER,	FLOW ENGINE ADPATER, 0235-540 1					
	2a	61173 OR Equivalent	ADAPTER BASE GASKET, O235	-540		1	1		
	2b	12777 OR Equivalent	ADAPTER BASE GASKET, IO720	DAPTER BASE GASKET, IO720 (NOT SHOWN)					
	2c	12776 OR Equivalent	ADAPTER BASE GASKET, IO720	DAPTER BASE GASKET, IO720 (NOT SHOWN) 1					
	3a	PLT-12775	ADAPTER PLATE, IO720 (NOT S	SHOWN)		1	1		
	3b	PLT-12999	RESTRICTOR PLATE, O235 (NO	T SHOWN)		1	1		
	4a	AN837-8D	45° BULKHEAD FITTING			2	1		
	4b	AN833-8D	90° BULKHEAD FITTING			ОРТ	1		
	4c	AN815-8D	UNION			ОРТ			
	5a	AN837-10D	45° BULKHEAD FITTING, IO720			2			
	5b	AN833-10D	90° BULKHEAD FITTING, IO720			ОРТ			
	5c	AN815-10D	UNION, IO720			OPT			
	6a	AN6289-8D	BULKHEAD NUT			2			
	6b	AN6289-10D	BULKHEAD NUT, IO720			2			
	7a	MS28773-08	TEFLON BOSS GASKET			2			
	7b MS28773-10 TEFLON BOSS GASKET 2  7b MS28773-10 TEFLON BOSS GASKET, IO720 2					2			
	8a M83248/1-908 VITON "O" RING					2			
	8b	M83248/1-910	VITON "O" RING, IO720			2			
	9	MS35769-11	OIL TEMPERATURE SENSOR GA	ASKET		1			
	10	MS35769-21	VERNATHERM® GASKET			1			
_	IA NAE	DATE					1		

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE		
		DIMENSIONS ARE IN INCHES TOLERANCES:	DRAWN	GM	12/28/2020		
		1 PLACE ±.030 12 PLACE ±.010	APPR. BY	BDA	12/28/2020	TITLE:	•
		0.01 + 05 - 005	ENG APPR.				
	4 PLACE ±.0005 ANGULAR ±0°30'		MFG APPR.				
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.				
		MATERIAL		1	•	SIZE	
NEXT ASSY	USED ON	FINISH	COMMENTS:			A	

Airwolf Filter Corp.

ASSEMBLY DRAWING, LYC-10 ADAPTER, **ENGINE - FULL FLOW** 

SIZE DWG. NO. AFC-D-0026

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of 23

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**APPLICATION** 

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**REV** 4-2-2021

Date:

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

		ଜ	ORIGINAL TYPE	CERTIFICATION		LLATION	AML
	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
ITEM	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
1	AEROTEK II INC	B-1A	A7WE	CAR PART 8.10(a)(1) and Amendments Listed in TCDS No. A7WE	AFC-K015	C 11/11/2010*	10/31/2012
2	AEROTEK II INC	B-1A	A8WE	CAR PART 3 and Amendments Listed in TCDS No. A8WE	AFC-K015	C 11/11/2010*	10/31/2012
. 3	AIR TRACTOR, INC.	AT-250, AT-300, AT-301	A9SW	14 CFR PART 23 and Amendments Listed in TCDS No. A9SW	AFC-K015	C 11/11/2010*	10/31/2012
4	AIR TRACTOR, INC.	AT-401, AT-401B, AT-501	A17SW	14 CFR PART 23 and Amendments Listed in TCDS No. A17SW	AFC-K015	C 11/11/2010*	10/31/2012
5	ALLIED AG CAT PRODUCTIONS INC. (Grumman)	G-164, -164A, -164B (Grumman Ag-Cat) G-164B with 73" Wing Gap G-164B-15T, G164B-34T, G164B-20T, G-164C	1A16	CAR PART 8.10(a)(1) and Amendments Listed in TCDS No. 1A16	AFC-K015	C 11/11/2010*	1/23/2001
6	AMERICAN AIRPLANE & ENGINEERING CO	Pilgrim 100A	ATC 443	ATC 443 as specified	AFC-K015	C 11/11/2010*	10/31/2012
7	AMPHIBIONS INC	Amphibion N-2-C	ATC248	ATC 248 as specified	AFC-K015	C 11/11/2010*	10/31/2012
8	AUGUSTA-BELL	AB-102	7H3	CAR PART 10 and Amendments Listed in TCDS No. 7H3	AFC-K015	C 11/11/2010*	10/31/2012
9	BELLANCA	F Skyrocket	2-475	Aero Bulletin 7A and as specified in TCDS No. 2-475	AFC-K015	C 11/11/2010*	10/31/2012
10	BELLANCA	CH-400 Skyrocket	ATC 319	ATC 319 as specified	AFC-K015	C 11/11/2010*	10/31/2012
11	BELLANCA	300-W Pacemaker	ATC 328	ATC 328 as specified	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		LLATION	AML
	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
ITEM	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
12	BOEING AIRPLANE CO (Stearman)	IB75A,	A-743	CAR PART 4a and Amendments Listed in TCDS No. A-743	AFC-K015	C 11/11/2010*	10/31/2012
13	BOEING AIRPLANE CO (Stearman)  BUSHMASTER	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), A75J1 (Army PT-18), A75L-300, E75N1 With P&W engine installed	A-743 A19WE	CAR PART 4a and Amendments Listed in TCDS No. A-743	AFC-K015	C 11/11/2010*	10/31/2012
15	CARL F. KROGMAN	Navy PBM-5	LTC-20	TCDS No. A19WE LTC-20 as specified and CAR PART 9	AFC-K015	11/11/2010* C 11/11/2010*	10/31/2012
16	(Martin Marietta)  CATALINA  AIRCRAFT TRUST  LLC  (General Dynamics,  Consolidated Vultee)	28-5ACF	785	CAR PART 3and CAR PART 4a and Amendments Listed in TCDS No. 785	AFC-K015	C 11/11/2010*	10/31/2012
17	CENTRAL AIR SERVICES (McDonnell Douglas)	Air Force C-54A, C-54B, C-54D, C-54E, C-54G	A36CE	14 CFR PART 21.25(a)(2) and Amendments Listed in TCDS No. 7A14	AFC-K015	C 11/11/2010*	10/31/2012
18	CARL F. KROGMAN (Chance Vought)	Navy OS2U-1, -2, -3, and OS2N-1	LTC-24	LTC-24 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
19	CIVIL AIR PATROL (DeHavilland)	L-20A	AR-33	CAR PART 8 and Amendments Listed in TCDS No. AR-33	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		LLATION	AML
TOTAL A	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
ITEM	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
20	CONSOLIDATED VULTEE AIRCRAFT CORP	BT-13 BT-13A (Navy SNV-1) BT-13B (Navy SNV-2)	A-2-571	CAR PART 4a and Amendments Listed in TCDS No. A-2-571	AFC-K015	C 11/11/2010*	1/23/2001
21	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SM-7B (Army L-12A)	ATC 329	ATC 329 as specified	AFC-K015	C 11/11/2010*	10/31/2012
22	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-5, SR-5A (Army L-12), SR-5B, SR-5C, SR-5E With P&W engine installed	ATC 530	ATC 530 as specified	AFC-K015	C 11/11/2010*	10/31/2012
23	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-6 SERIES With P&W engine installed	ATC 580	ATC 580 as specified	AFC-K015	C 11/11/2010*	10/31/2012
24	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-7A, SR-7B, SR-7C With P&W engine installed	ATC 594	ATC 594 as specified	AFC-K015	C 11/11/2010*	10/31/2012
25	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-9F (Army UC-81E)	ATC 640	ATC 640 as specified	AFC-K015	C 11/11/2010*	10/31/2012
26	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	SR-10F (Army UC-81F)	TC 685	TC 685 as specified	AFC-K015	C 11/11/2010*	10/31/2012
27	CONSOLIDATED- VULTEE AIRCRAFT CORP, STINSON DIVISION	Stinson W	ATC 435	ATC 435 as specified	AFC-K015	C 11/11/2010*	10/31/2012
28	CURTISS-WRIGHT	Travel Air 4000 With P&W engine installed	ATC 32	ATC 32 as specified	AFC-K015	C 11/11/2010*	10/31/2012
29	CURTISS-WRIGHT	Travel Air A-6000-A	ATC 116	ATC 116 as specified	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL			LLATION	
			TYPE	CERTIFICATION	INSTR	UCTIONS	AML
TOTAL A	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
ITEM	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
30	DELONG (Boeing)	F484	2-555	CAR PART 4 and Amendments Listed in TCDS No. 2-555	AFC-K015	C 11/11/2010*	10/31/2012
31	PAUL V. SHIELDS (Douglas)	Army A-26B, A-26C	TCS L-3-4	LTC-3-4 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
32	DOUGLAS AIRCRAFT COMPANY	Dolphin 1 Special	2-366	Aero Bulletin 7A and as specified in TCDS No. 2-366	AFC-K015	C 11/11/2010*	10/31/2012
33	EDWARD BUDD MANUFACTURING COMPANY	RB-1	756	TC 756 as specified	AFC-K015	C 11/11/2010*	10/31/2012
34	FAIRCHILD INDUSTRIES	FC-2-W2	ATC 61	ATC 61 as specified	AFC-K015	C 11/11/2010*	10/31/2012
35	FAIRCHILD INDUSTRIES	71	ATC 89.	ATC 89 as specified	AFC-K015	C 11/11/2010*	10/31/2012
36	FORD MOTOR COMPANY	S-AT-B	ATC 156	ATC 156 as specified	AFC-K015	C 11/11/2010*	10/31/2012
37	FORD MOTOR COMPANY	S-AT-C	ATC 165	ATC 165 as specified	AFC-K015	C 11/11/2010*	10/31/2012
38	FORD MOTOR COMPANY	S-AT-D	ATC 409	ATC 409 as specified	AFC-K015	C 11/11/2010*	10/31/2012
39	FRAKES AVIATION (Grumman)	G-73 (Mallard)	A-783	CAR PART 4a and Amendments Listed in TCDS No. A-783	AFC-K015	C 11/11/2010*	10/31/2012
40	CONSOLIDATED VULTEE (General Dynamics)	(Army) LB-30	L-6-3	L-6-3 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
41	GENERAL DYNAMICS	PBY-5 (Army OA-10) PBY-5A (Army OA-10A)	2-548	CAR PART 4a and Amendments Listed in TCDS No. 2-548	AFC-K015	C 11/11/2010*	10/31/2012
42	GENERAL DYNAMICS (Consolidated Vultee)	T8P-1	ATC 662	ATC 662 as specified	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		LLATION UCTIONS	AML
ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	CERTIFICATE NUMBER	BASIS FOR ALTERATION	NUMBER	REVISION NO. AND DATE	AMENDMENT DATE
43	GENERAL DYNAMICS (Consolidated Vultee)	16 Commodore	ATC 258	ATC 258 as specified	AFC-K015	C 11/11/2010*	10/31/2012
44	GRUMMAN AIRCRAFT ENGINEERING CORP	(Navy) F8F-1	LTC-23-2	LTC-23-2 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
45	GRUMMAN AMERICAN AVIATION CORPORATION	G-21, G-21A Goose, (Army OA-9) Navy JRF-1, JRF-2, JRF-3, JRF-4, JRF-5, JRF-6B	TC 654	Aero Bulletin 7A and as specified in TCDS No. TC-654	AFC-K015	C 11/11/2010*	1/23/2001
46	HAMILTON METALPLANE DIVISION BOEING AIRPLANE	H-47	2-329	Aero Bulletin 7A and as specified in TCDS No. 2-329	AFC-K015	C 11/11/2010*	10/31/2012
47	HAMILTON METALPLANE DIVISION BOEING AIRPLANE	H-45	ATC 85	ATC 85 as specified	AFC-K015	C 11/11/2010*	10/31/2012
48	HAWKER BEECHCRAFT CORP (Beechcraft)	Army AT-11, Navy SNB-1	A-2-582	CAR PART 4a and Amendments Listed in TCDS No. A-2-582	AFC-K015	C 11/11/2010*	10/31/2012
49	HAWKER BEECHCRAFT CORP (Beechcraft)	D17S (Army UC-43, UC-43B) (Navy GB-1, GB-2). SD17S	A-649	Aero Bulletin 7A and as specified in TCDS No. A-649	AFC-K015	C 11/11/2010*	10/31/2012
50	HAWKER BEECHCRAFT CORP (Beechcraft)	G17S	779	CAR PART 4 and Aero Bulletin 7A and as specified in TCDS No. 779	AFC-K015	C 11/11/2010*	10/31/2012
51	HAWKER BEECHCRAFT CORP (Beechcraft)	18S (Army C-45C) B18S (Army F-2)	TC 710	CAR PART 4a and Amendments Listed in TCDS No. TC-710	AFC-K015	C 11/11/2010*	10/31/2012
52	HAWKER BEECHCRAFT CORP (Beechcraft)	C18S (Army C-45, -45A, -45F, UC-45B, AT-7, -7A, -7B, -7C) Navy JRB-1, -2, -3, -4, SNB-2, -2C	A-757	CAR PART 4a and Amendments Listed in TCDS No. A-757	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		LLATION	AML
ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	CERTIFICATE NUMBER	BASIS FOR ALTERATION	NUMBER	REVISION NO. AND DATE	AMENDMENT DATE
53	HAWKER BEECHCRAFT CORP (Beechcraft)	D-18S (Army C45, -45A, -45F, UG45B, UG45F, AT-7, AT-7A, AT-7B, AT-7C, Navy JRB-1, JRB-2, JRB-3, JRB-4,SNB-2, SNB-2C)	A-757	CAR PART 4a and Amendments Listed in TCDS No. A-757	AFC-K015	C 11/11/2010*	10/31/2012
54	HAWKER BEECHCRAFT CORP (Beechcraft)	D18S, E18S, E18S-9700, G18S, H18, C-45G, TC-45G, C-45H, TC-45H, TC-45J, UC-45J, (SNB-5), JRB-6, 3N, 3NM, 3TM, RC-45J (SNB-5P), UC-45J	A-765	CAR PART 3 and Amendments Listed in TCDS No. A-765	AFC-K015	C 11/11/2010*	1/23/2001
55	HOWARD AIRCRAFT FOUNDATION	DGÄ-11	672	Aero Bulletin 7A and as specified in TCDS No. 672	AFC-K015	C 11/11/2010*	10/31/2012
56	HOWARD AIRCRAFT FOUNDATION	DGA-15P, (Army UC-70; (Navy GH-1, GH-2, GH-3, NH-1)	A-717	CAR PART 4a and Amendments Listed in TCDS No. A-717	AFC-K015	C 11/11/2010*	10/31/2012
57	HOWARD AIRCRAFT FOUNDATION	DGA-15J (Army UC-70B) DGA-15W With P&W engine installed	A-717	CAR PART 4a and Amendments Listed in TCDS No. A-717	AFC-K015	C 11/11/2010*	10/31/2012
58	LOCKHEED MARTIN AERONAUTICS COMPANY	Electra 10-A (Army UC-36A Navy R-20, XR-20-1)	551	Aero Bulletin 7A and as specified in TCDS No. 551	AFC-K015	C 11/11/2010*	10/31/2012
59	LOCKHEED MARTIN AERONAUTICS COMPANY	Electra 10-E	590	Aero Bulletin 7A and as specified in TCDS No. 590	AFC-K015	C 11/11/2010*	10/31/2012
60	LOCKHEED MARTIN AERONAUTICS COMPANY	12-A (Army UC-40, UC-40A Navy JO-1, JO-2)	616	Aero Bulletin 7A and as specified in TCDS No. 616	AFC-K015	C 11/11/2010*	10/31/2012
61	LOCKHEED AIRCRAFT CORP	14-H, 14-H2	ATC 657	ATC 657 as specified	AFC-K015	C 11/11/2010*	10/31/2012
62	LOCKHEED AIRCRAFT CORP	Vega 5, 5A Executive	ATC 93	ATC 93 as specified	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		LLATION	AML
ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	CERTIFICATE NUMBER	BASIS FOR ALTERATION	NUMBER	REVISION NO. AND DATE	AMENDMENT DATE
63	LOCKHEED AIRCRAFT CORP	Vega 5-C (Army UC-101)	ATC 384	ATC 384 as specified	AFC-K015	C 11/11/2010*	10/31/2012
64	MUSTANG AVIATION INC. (North American)	(Army) BC-1	LTC-22-	LTC-22 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
65	NOORDUYN AVIATION LTD	Norseman Mark IV, (Army UC-64) Mark VI (Army UC-64A, UC-64B, UC-64AS), Mark V	A-2-578	CAR PART 4a and Amendments Listed in TCDS No. A-2-578	AFC-K015	C 11/11/2010*	10/31/2012
66	NORTH AMERICAN AVIATION INC. THE BOEING COMPANY (Fokker)	Super Universal	ATC 52	Aero Bulletin 7A and as specified in TCDS No. ATC 52	AFC-K015	C - 11/11/2010*	10/31/2012
67	NORTHROP AIRCRAFT CORP	(Army) P-61, P-61A, P-61B	LTC-14	LTC-14 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	- 10/31/2012
68	ORLANDO HELICOPTER AIRWAYS	HRS-1/CH-19 H-19A, YH-19A, UH-19C	HR1SO	14 CFR PART 21 and Amendments Listed in TCDS No. HR1SO	AFC-K015	C 11/11/2010*	10/31/2012
69	P.J. FRANKLIN (North American)	(Army) BT-14	LTC-32	LTC-32 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
70	ROBERT H LEWIS (General, Consolidated Vultee)	(Navy) PB2Y-3, 3R, -5, -5R, -5Z	LTC-5	LTC-5 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
71	RYAN AIRCRAFT CORP	B-7	ATC 262	ATC 262 as specified	AFC-K015	C 11/11/2010*	10/31/2012
72	HELI-I-COP ADVERTISING (Sikorsky Aircraft)	Army R-5A	LTC-19	LTC-19 as specified and CAR PART 9	AFC-K015	C 11/11/2010*	10/31/2012
73	SIKORSKY AIRCRAFT	S-39-B	ATC 375	ATC 375 as specified	AFC-K015	C 11/11/2010*	10/31/2012
74	SIKORSKY AIRCRAFT	S-39-C	2-391	Aero Bulletin 7A and as specified in TCDS No. 2-391	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION		LLATION UCTIONS	AML
ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	CERTIFICATE NUMBER	BASIS FOR ALTERATION	NUMBER	REVISION NO. AND DATE	AMENDMENT DATE
75	SIKORSKY AIRCRAFT	S-41-B	2-286	Aero Bulletin 7A and as specified in TCDS No. 2-286	AFC-K015	C 11/11/2010*	10/31/2012
76	SIKORSKY AIRCRAFT	S-51	H-2	CAR PART 6 and Amendments Listed in TCDS No. H-2	AFC-K015	C 11/11/2010*	10/31/2012
77	SIKORSKY AIRCRAFT	S-55, S-55B, S-55C	1H4	CAR PART 6 and Amendments Listed in TCDS No. 1H4	AFC-K015	C 11/11/2010*	10/31/2012
78	SIKORSKY AIRCRAFT	VS-44-A	752	CAR PART 4a and Amendments Listed in TCDS No. 752	AFC-K015	C 11/11/2010*	10/31/2012
79	SPARTANAIRCRAF T COMPANY	7W (Army UC-71)	628	Aero Bulletin 7A and as specified in TCDS No. 628	AFC-K015	€ 1:1/11/2010*	1/23/2001
80	STEARMAN AIRCRAFT COMPANY	ALPHA 4-A	ATC 461	ATC 461 as specified	AFC-K015	C 11/11/2010*	10/31/2012
81	STEARMAN AIRCRAFT COMPANY	4D	ATC 305	ATC 305 as specified	AFC-K015	C -11/11/2010*	10/31/2012
82	STEARMAN AIRCRAFT COMPANY	4E	ATC 292	ATC 292 as specified	AFC-K015	C 11/11/2010*	10/31/2012
83	THE BOEING COMPANY (Douglas)	DC-3-G102, DC-3-C102A (Army C-49E, C-50,C-50A, B, C, D, & C-51) DC-3-G103A, DC-3-G202A (Army C-49, C-49A, B, C, D, J, K) Navy R4D-2 With P&W engine installed	A-618	Aero Bulletin 7A and as specified in TCDS No. A-618	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL	5 Not serve		LLATION	COOL STATE OF THE
			TYPE	CERTIFICATION	INSTR	UCTIONS	AML
ITEM	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR		REVISION NO.	AMENDMENT
IILIVI	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
84	THE BOEING COMPANY	DC3A-SCG & DC3A-SC3G DC3A-S1CG, DC3A-S1C3G (Army C-41, C-41A, C-48,C-48A, C-52, C-52A,C-52B, C-52C, C-53, C-53B, C-53C, C-53D, C-68; Navy R4D-3, R4D-4, DC3A-S4C4G, DC3C-SC3G,	A-669	Aero Bulletin 7A and as specified in	AFC-K015	C 11/11/2010*	1/23/2001
	(Douglas)	DC3C-S1C3G, DC3C-S4C4G (Army		TCDS No. A-669		11/11/2010	. E
8		C-47, C-47A; Navy R4D-1, R4D-5) DC3C-R-1830-90C	ng d		0 = 1	na ep la	i alio
		(Army C-47B, Navy R4D-6) DC3D-R-1830-90C (Army C-117A)					
II N SHE		C54-DC					
85	THE BOEING COMPANY (Douglas)	(Army C-54, Navy R5D)	A-762	CAR PART 4a and CAR PART 4b and Amendments Listed in TCDS No. A-762	AFC-K015	C 11/11/2010*	10/31/2012
86	THE BOEING COMPANY (Douglas)	DC-6	A-781	CAR PART 4a and CAR PART 4b and Amendments Listed in TCDS No. A-781	AFC-K015	C 11/11/2010*	10/31/2012
87	THE BOEING COMPANY (Douglas)	DC-6A (Navy R6D-1, USAF C-118A)	6A3	CAR PART 4b and Amendments Listed in TCDS No. 6A3	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

			ORIGINAL TYPE	CERTIFICATION	INSTALLATION INSTRUCTIONS		AML
	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR	mistr	REVISION NO.	AMENDMENT
ITEM	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
88	THE BOEING COMPANY (Douglas)	DC-6C (Navy R6D-12)	6A4	CAR PART 4b and Amendments Listed in TCDS No. 6A4	AFC-K015	C 11/11/2010*	10/31/2012
89	THE BOEING COMPANY (Rockwell North American)	BC-1A, AT-6 (Navy SNJ-2), AT-6A (Navy SNJ-3) AT-6B, AT-6C (Navy SNJ-4), AT-6D (Navy SNJ-5), AT-6F (Navy SNJ-6, -7) T-6G	A-2-575	CAR PART 4a and Amendments Listed in TCDS No. A-2-575	AFC-K015	C 11/11/2010*	1/23/2001
90	THE BOEING COMPANY	80-A, 80-A1	TC 206	TC 206 as specified	AFC-K015	C 11/11/2010*	10/31/2012
91	THE BOEING COMPANY	100	ATC 133 -	ATC 133 as specified	AFC-K015	C 11/11/2010*	10/31/2012
92	THE BOEING COMPANY	247-D (Army C-73)	-ATC 558	ATC 558 as specified	AFC-K015	C 11/11/2010*	10/31/2012
93	THRUSH AIRCRAFT (Ayers, Quality Aero, Rockwell, Snow)	S2A With P&W engine installed	2A9	CAR PART 8.10(a)(1) and Amendments Listed in TCDS No. 2A9	AFC-K015	C 11/11/2010*	10/31/2012
94	THRUSH AIRCRAFT (Ayers, Quality Aero, Rockwell, Snow)	S-2B, S-2C, 600-S2C	2A7	CAR PART 8.10(a)(1) and Amendments Listed in TCDS No. 2A7	AFC-K015	C 11/11/2010*	10/31/2012
95	THRUSH AIRCRAFT (Ayers, Quality Aero, Rockwell, Snow)	600 S-2D, S-2R, S2R-R1340	A3SW	CAR PART 3 and Amendments Listed in TCDS No. A3SW	AFC-K015	C 11/11/2010*	10/31/2012
96	THRUSH AIRCRAFT (Ayers, Quality Aero, Rockwell, Snow)	600 S-2D, S-2R (S2R), S2R-R1340	A4SW	CAR PART 3 and 14 CFR PART 23 and Amendments Listed in TCDS No. A4SW	AFC-K015	C 11/11/2010*	10/31/2012
97	VIKING AIR LIMITED (DeHavilland)	DHC-2 MK1	A-806	CAR PART 3 and Amendments Listed in TCDS No. A-806	AFC-K015	C 11/11/2010*	10/31/2012

## AIRWOLF FILTER CORP FOR INSTALLING REMOTE MOUNT OIL FILTER KIT

Issue Date: January 23, 2001

			00707717		TNICTA	TTATION	
			ORIGINAL			LLATION	2 5000
			TYPE	CERTIFICATION	INSTR	UCTIONS	AML
ITEM	AIRCRAFT	AIRCRAFT	CERTIFICATE	BASIS FOR	NATIONAL PROPERTY.	REVISION NO.	AMENDMENT
IIEM	MAKE	MODEL	NUMBER	ALTERATION	NUMBER	AND DATE	DATE
	VIKING AIR	DUC 2 M/ II DUC 2 M/ 111		CAR PART 3 and		С	
98	LIMITED	DHC-2 MK II, DHC-2 MK 111	A-806	Amendments Listed in	AFC-K015	11/11/2010*	1/23/2001
	(DeHavilland)	With P&W engine installed		TCDS No. A-806		11/11/2010	
	VIKING AIR			CAR PART 10 and		С	
99	LIMITED	DHC-3 (U-1A)	A-815	Amendments Listed in	AFC-K015	11/11/2010*	10/31/2012
500	(DeHavilland)			TCDS No. A-815		11/11/2010*	
	W. CO I POP I PM			Aero Bulletin 7A		С	d'
100	WACO AIRCRAFT	S3HD	543	and as specified in	AFC-K015	11/11/2010*	10/31/2012
	COMPANY		2002	TCDS No. 543	m 18	11/11/2010	
	***************************************	2	3	CAM PART 8 APP B	K FAR		\$1 VY
	WEATHERLY	201 2014 2017 2016	4 1017/10	and Amendments	A E.C. 1701 5	C.	1/23/2001
101	AIRCRAFT	201, 201A, 201B, 201C	A10WE	Listed in	AFC-K015	11/11/2010*	1/25/2001
	COMPANY			TCDS No. A10WE	115	Committee of the commit	
	***************************************		76	CAM PART 8 APP B	COMM		
100	WEATHERLY	(20, (20,4, (20))	ADCIVIE	and Amendments	AFC-K015	C	10/31/2012
102	AIRCRAFT	620, 620A, 620B	A26WE	Listed in	AFC-KUIS	11/11/2010*	10/31/2012
	COMPANY	* Pagi 2 4		TCDS No. A26WE	. A 4		
8	WILLIAM P. ODON	(A) C 97A				С	No amagination and the second
103	(General Dynamics,	(Army) C-87A	LTC-30	LTC 30 as specified	AFC-K015	11/11/2010*	10/31/2012
a fe not v	Consolidated Vultee)	R 4 8 80 K X		.52	of the co	11/11/2010	
	ZENITH AIDCD AFT	_xx2 3 € 4		Aero Bulletin 7A		С	2 2
104	ZENITH AIRCRAFT	Z-6-A	2-269	and as specified in	AFC-K015	11/11/2010*	10/31/2012
1 II	CORP			TCDS No. 2-269		11/11/2010	
					A A J D		

\* Or Later FAA Approved Revisions

FAA Approved:

Manager, Propulsion & Program Management Branch Chicago Aircraft Certification Office

Date Amended: 01/23/01, 10/31/12

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

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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.