AIRWOLF FILTER, CORP

12900 Smith Road
Okmulgee, Oklahoma 74447 U.S.A.
USA-1-(918) 561-8696 / (918) 561-8695 Fax
http://www.airwolf.com / Email: support@airwolf.com

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 Aircraft Certification Office which will clarify the details. They are very familiar with our filter kits and can address any concerns your FSDO. inspector may have on your particular installation.

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

FAA APPROVED
cg
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.

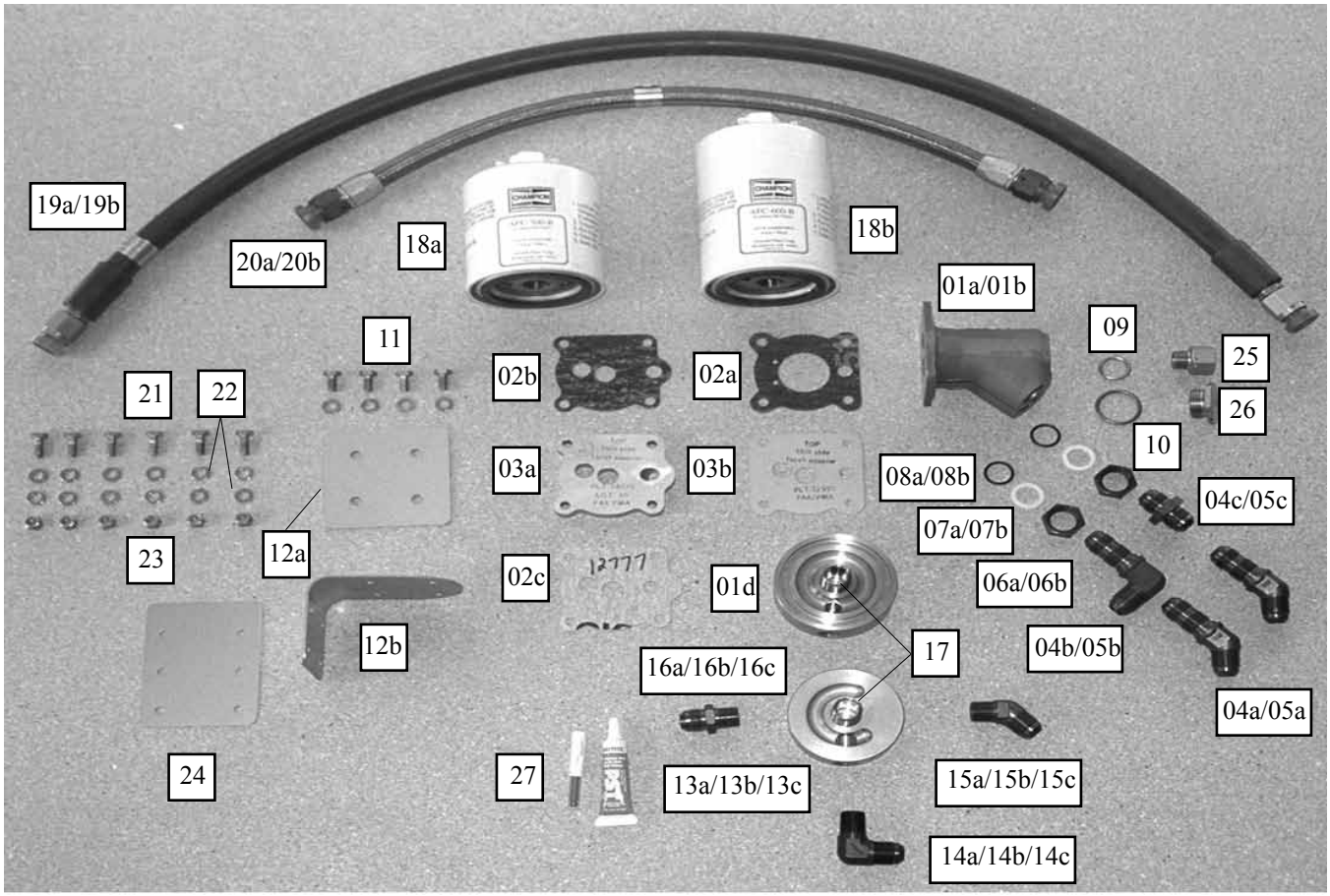
DATA PERTINENT TO ALL INSTALLATIONS

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

Applicability:	**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**

Parts List No. AFC-K007-PL

Index	Part Number	Description	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 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

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

Index	Part Number	Description	Quantity
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 Fixed Wing Aircraft with O235-O540 engines 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.**

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).**

04. 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.**

05. 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.

Installation Instructions No. AFC-K007-B-II

Applicability:	**Lycoming powered Single and Multi Engine Fixed Wing Aircraft less than 450hp, using Single Drive Dual Mags 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.**

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.
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 aproximately .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).

05. 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 *******

09a. 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).

OR

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 Fixed Wing Aircraft with IO-720 engines 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.**

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.

04. 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 (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 *******

06. Using the oil filter horizontal mount (12a.) or vertical oil filter mount (12b.) as a drilling template, locate and drill mounting holes using a letter "F" drill.

07a. 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 (22), and nuts (23).

OR

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 *******

08. Install any combination of fitting (14b), (15b), or (16b) into oil filter base (13b). Mount to oil filter mount plate (12a.) or (12b.) using 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.

10. 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" 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.

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-D-II

Applicability:	**Lycoming powered Single and Multi Engine 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 bolts (11), washers (22), and secure with .032 MS20995-C safety wire.

******* 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 inches 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.

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 (13c). 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.

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.

Installation Instructions No. AFC-K007-F-II

Applicability:	**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.**

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 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 will make contact with the 77852 adapter without the o-ring installed in our OFB-17 adapter.

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.**

03. 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.

05. 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 *******

06a. 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: 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. 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.

10 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 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.**

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.**

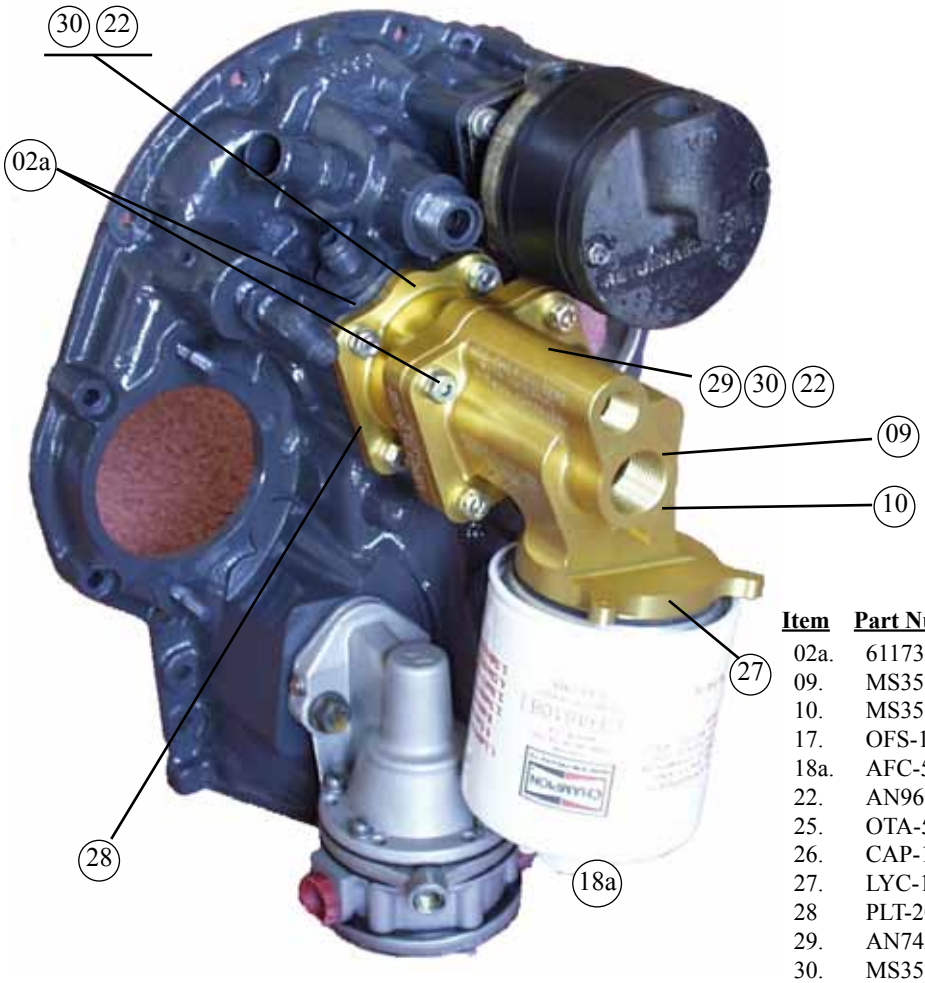
04. Using Adapter Base Gasket (02a) provided, install Full Flow Engine Adapter (27) onto newly installed 2" adapter plate using drilled head bolts (29) and flat washers (22) provided, torque to 96 in/lbs, and secure with .032 MS20995-C safety wire.
05. Install a new gasket (09) under the head of the 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 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 (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 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.**

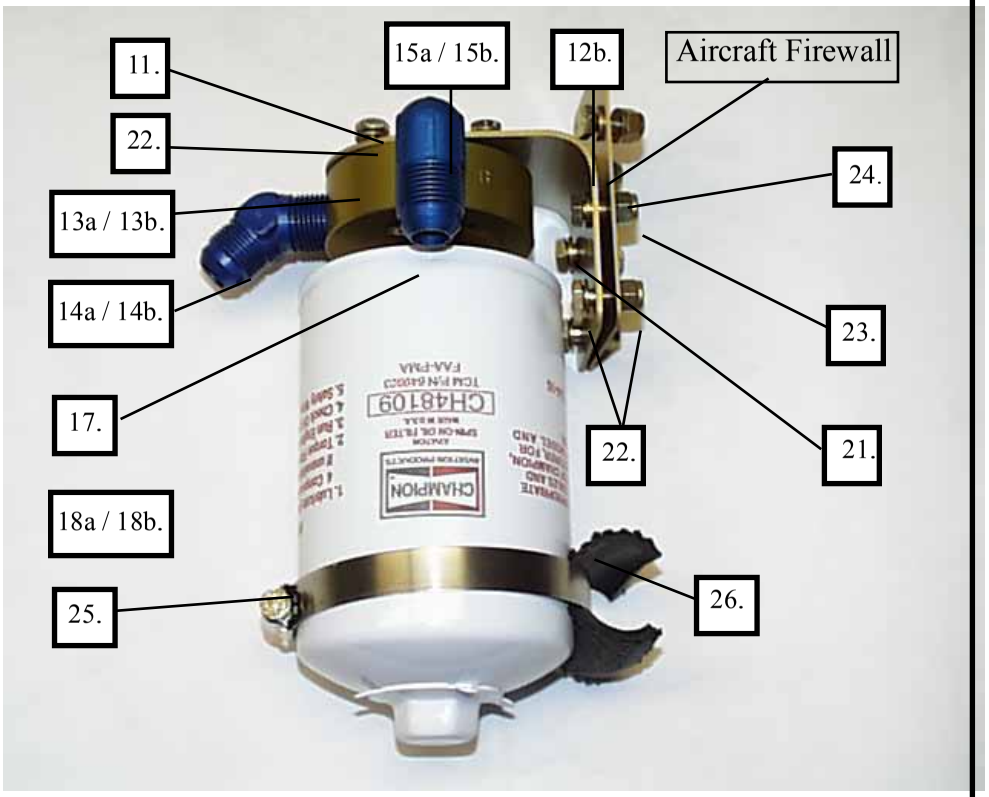
07. Using small amount of silicone grease on oil filter gasket, install oil filter (18a), torque per instructions on oil filter, and secure with MS20995-C safety wire.
08. Run engine and check for leaks.
09. Determine weight and balance, initiate a 337 form, and update the equipment list.



Item	Part Number	Description	Qty
02a.	61173	Adapter Base Gasket, O235-540	(1)
09.	MS35769-11	Gasket, Oil Temperature Sensor	(1)
10.	MS35769-21	Gasket, Thermostatic Valve	(1)
17.	OFS-10	Oil Filter Stud	(1)
18a.	AFC-500	Oil Filter	(1)
22.	AN960-416	1/4" Flat Washer	(8)
25.	OTA-527	Oil Temp Adapter (Opt)	
26.	CAP-1350	Bypass Valve Cap (Opt)	
27.	LYC-12	Full Flow Engine Adapter	(1)
28	PLT-200	2" Adapter Plate	(1)
29.	AN74A-6	Drilled Head Bolts	(4)
30.	MS35333-40	1/4" Star Washer	(8)

ASSEMBLY DRAWING# AFC-D-0025

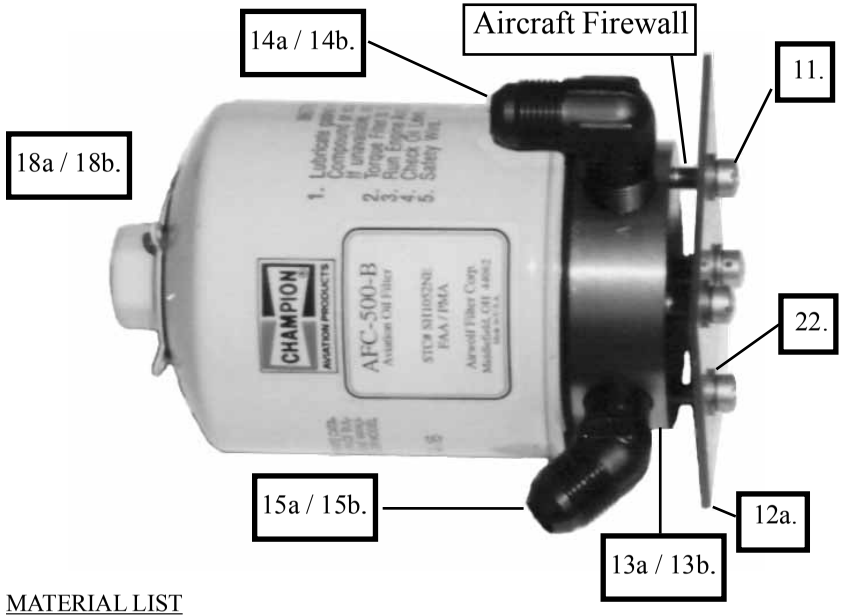
VERTICAL INSTALLATION



MATERIAL LIST

Index	Part Number	Description	Qty
11.	AN4H-4A	Bolts, Drilled Head	(4)
12b.	OFM-11	Vertical Oil Filter Mount Plate	(1)
13a.	OFB-10	Oil Filter Base	(1)
13b.	OFB-11	Oil Filter Base, IO720	(1)
14a.	MS20822-8D	90° Fitting	1)
14b.	MS20822-10D	90° Fitting, IO720	(1)
15a.	MS20823-8D	45° Fitting	(1)
15b.	MS20823-10D	45° Fitting, IO720	(1)
16a.	AN816-8D	Union	(Opt)
16b.	AN816-10D	Union, IO720	(Opt)
17.	OFS-10	Oil Filter Stud	(1)
18a.	AFC-500	Oil Filter , Std.	(1)
18b.	AFC-600	Oil Filter , Long	(1)
21.	AN4-5A	Bolt	(6)
22.	AN960-416	Flat Washers	(16)
23.	MS20365-428A	Locknut	(6)
24.	DBL-10	Doubler Plate	(1)
25.	QS100M52H	Clamp	(1)
26.	MIL6000-1/2-2	Dampener	(1)

HORIZONTAL INSTALLATION



MATERIAL LIST

Index	Part Number	Description	Qty
11.	AN4H-4A	Drilled Head Bolts	(4)
12a.	OFM-10	Horizontal Oil Filter Mount	(1)
13a.	OFB-10	Oil Filter Base	(1)
13b.	OFB-11	Oil Filter Base, IO720	(1)
14a.	MS20822-8D	90° Fitting	(1)
14b.	MS20822-10D	90° Fitting IO720	(1)
15a.	MS20823-8D	45° Fitting	(1)
15b.	MS20823-10D	45° Fitting IO720	(1)
16a.	AN816-8D	Union	(Opt)
16b.	AN816-10D	Union, IO720	(Opt)
17.	OFS-10	Oil Filter Stud	(1)
18a.	AFC-500	Oil Filter , Std.	(1)
18b.	AFC-600	Oil Filter , Long	(1)
22.	AN960-416	Flat Washers	(4)
24.	DBL-10	Doubler Plate	(1)

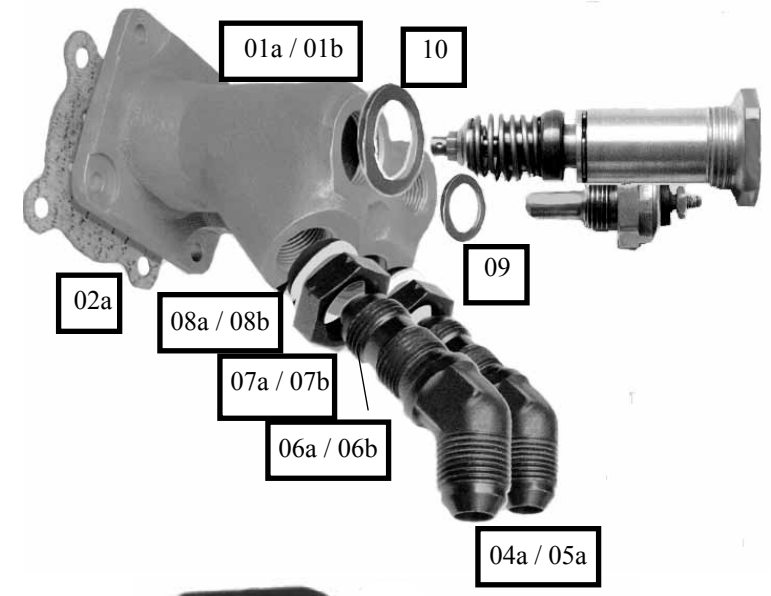
Airwolf Filter Corp.

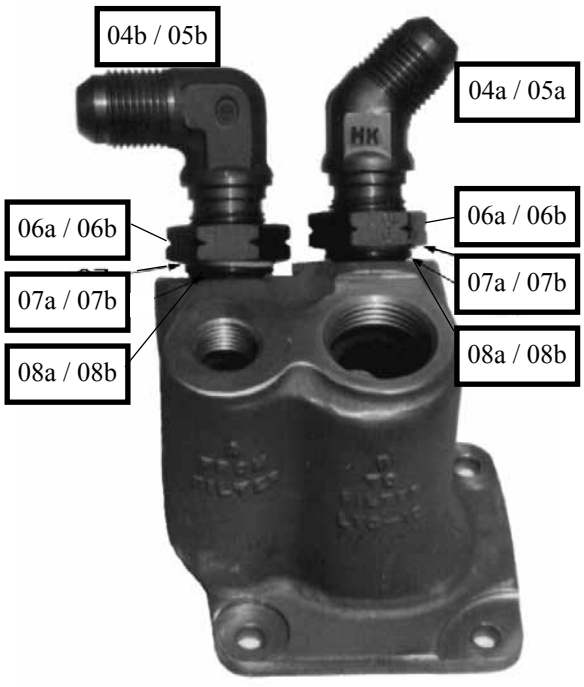
Assembly Drawing.
OFM-10 Oil Filter Mount Plate - Horizontal,
OFM-11 Oil Filter Mount Plate - Vertical,
DBL-10 Doubler Plate & OFB-10 Oil Filter Base

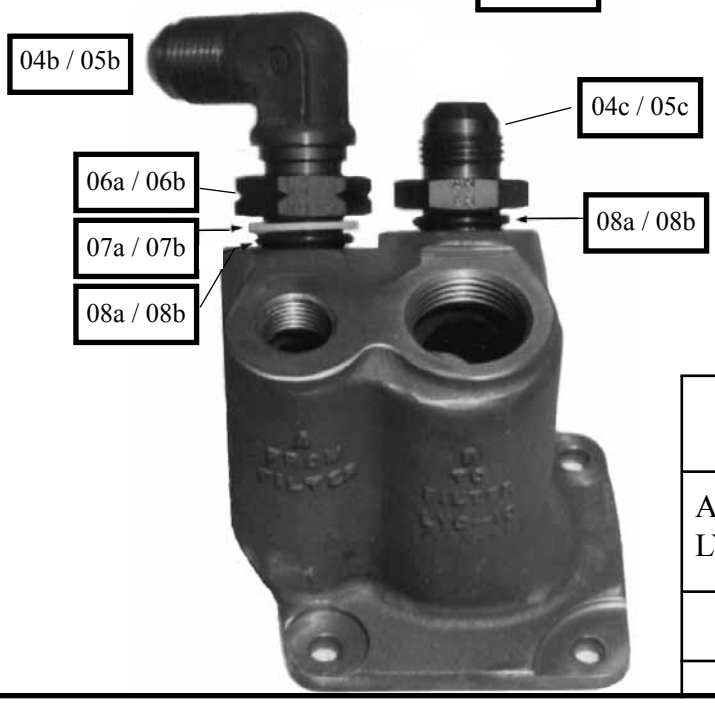
ASSEMBLY DRAWING# AFC-D-0026

MATERIAL LIST

Index	Part Number	Description	Qty
01a.	LYC-10	Full Flow EngineAdapter, O235-540	(1)
01b.	LYC-11	Full Flow EngineAdapter, IO720	(1)
02a.	61173	Adapter Base Gasket O235-540	(1)
02b.	12777	Adapter Base Gasket, IO720, [Not Shown]	(1)
02c.	12776	Adapter Base Gasket, IO720, [Not Shown]	(1)
03a.	PLT-12775	Adapter Plate, IO720 [Not Shown]	(1)
03b.	PLT-12999	Restrictor Plate, O235 [Not Shown]	(1)
04a.	AN837-8D	45° Bulkhead Fitting	(2)
04b.	AN833-8D	90° Bulkhead Fitting	(Opt)
04c.	AN815-8D	Union	(Opt)
05a.	AN837-10D	45° Bulkhead Fitting, IO720	(2)
05b.	AN833-10D	90°Bulkhead Fitting, IO720	(Opt)
05c.	AN815-10D	Union, IO720	(Opt)
06a.	AN6289-8D	Bulkhead Nut	(2)
06b.	AN6289-10D	Bulkhead Nut, IO720	(2)
07a.	MS28773-08	Teflon Boss Gasket	(2)
07b.	MS28773-10	Teflon Boss Gasket, IO720	(2)
08a.	MS9387-08	Viton "O" Ring	(2)
08b.	MS9387-10	Viton "O" Ring, IO720	(2)
09.	MS35769-11	Oil Temperature Sensor Gasket	(1)
10.	MS35769-21	Vernatherm® Gasket	(1)



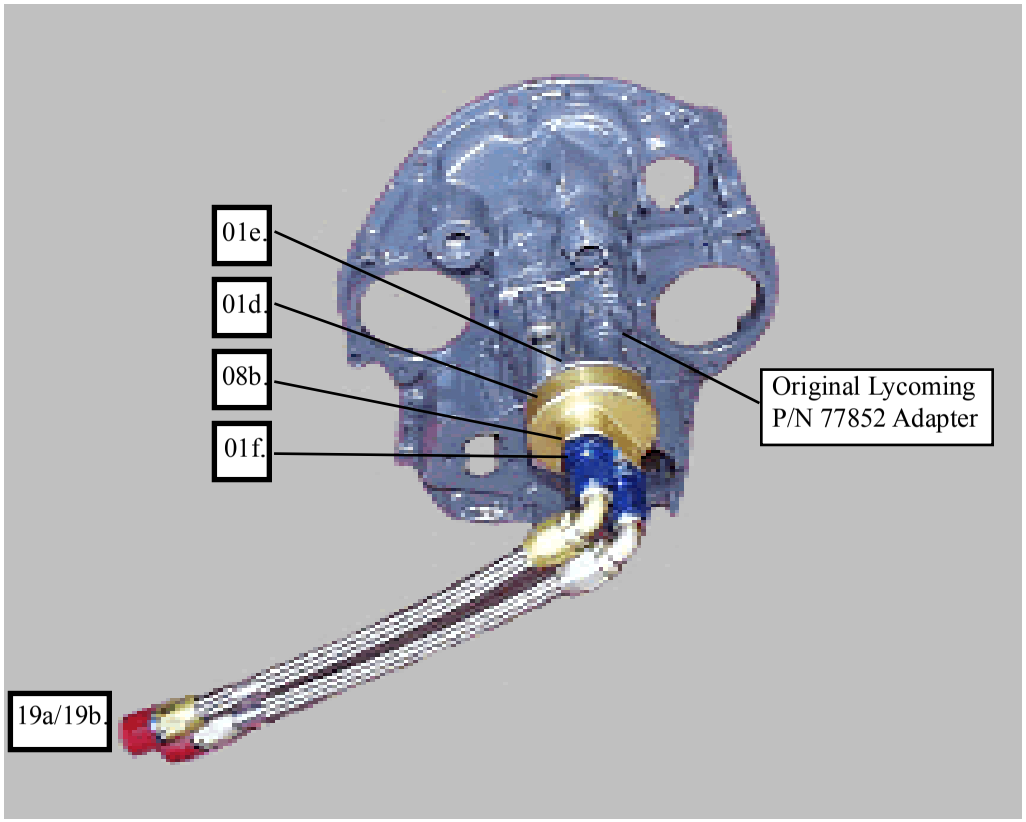


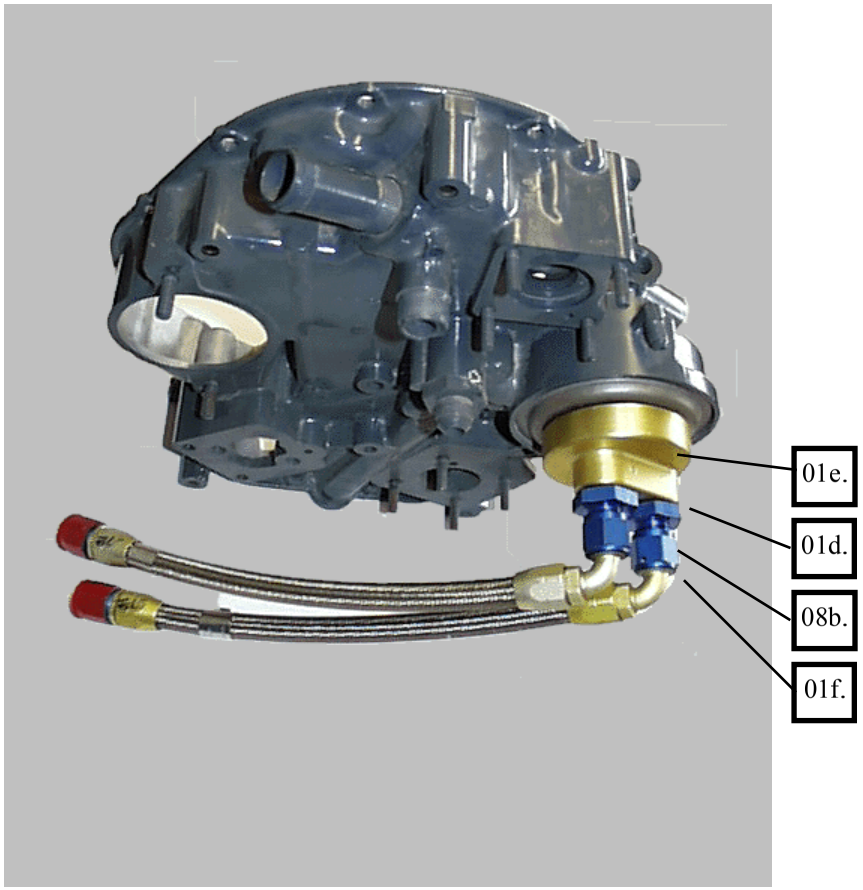


Airwolf Filter Corp.

Assembly Drawing.
LYC-10 Adapter, Engine - Full Flow

ASSEMBLY DRAWING# AFC-D-0048





Index	Part Number	Description	Quantity
01d.	OFB-17	Full Flow Engine Adapter- Single Drive Dual Mags [New Style]	(1)
01e.	M83248/1-230	Viton "O" Ring, Single Drive Dual Mags [New Style]	(1)
01f.	AN919-15D-SP	Reducer Fitting, -10 -> -8 Single Drive Dual Mags [New Style]	(2)
08b.	MS9387-10	Viton “O” Rings, IO720	(2)
19a.	F13000008-0xxz	Titeflex® Firesleeved Teflon Hose, [-8], O235-540	(Opt)

Airwolf Filter Corp.

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

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

List of Effective Pages

Page Number	Revision	Revision Date
Cover	IR	4/2/2021
1	IR	4/2/2021
2	IR	4/2/2021
3	IR	4/2/2021
4	IR	4/2/2021
5	IR	4/2/2021
6	IR	4/2/2021
7	IR	4/2/2021
8	IR	4/2/2021
9	IR	4/2/2021
10	IR	4/2/2021
11	IR	4/2/2021
12	IR	4/2/2021
13	IR	4/2/2021
14	IR	4/2/2021
15	IR	4/2/2021
16	IR	4/2/2021
17	IR	4/2/2021
18	IR	12/28/2020
19	IR	12/15/2020
20	IR	12/8/2020
21	IR	12/28/2020
22	A	12/28/2020
23	A	12/28/2020

Page Number	Revision	Revision Date

Table of Contents

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. **Do not** over tighten the fittings on Adapters or housings. This can distort or crack housings, causing oil to leak.

4. It is ***EXTREMELY*** important that oil lines be routed properly in accordance with AC 43.13-1A & 2A Acceptable Methods and Practices. (see Tip below)

5. See Warnings and Notes contained in the instructions concerning routing of lines and the use of sealant on NPT fittings.

DO NOT USE TEFLON TAPE ON FITTINGS.

6. The use of sealant on AN/Flared type fittings is not required, it is only required on NPT fittings.

7. When mounting Adapters use the supplied doublers for reinforcing mounting locations.

8. ***BE PATIENT!!!*** Take your time and you will see the results of your effort.

TIP

How to get correct length of hose

Hose length is measured from flare to flare. Do not use a string or a tape measure but take a section of old garden hose. Touch one end of the garden hose to the tip of one fitting and touch the other end of the hose to the other fitting, that is the correct length of hose needed. The garden hose is trying to bend to its natural set, which is normally the extra 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.**

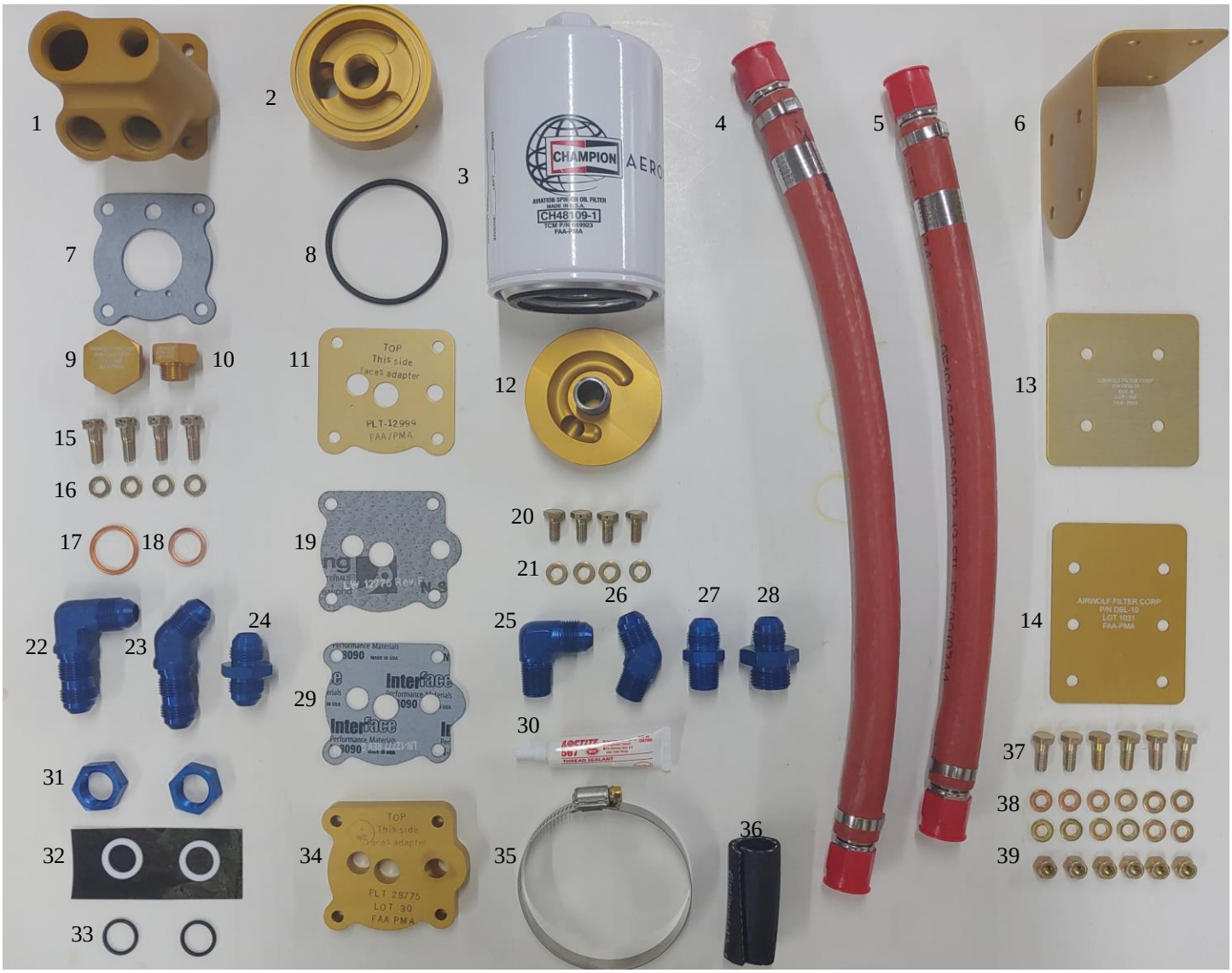
NOTE.

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,

Applicability: **Lycoming Powered Single and Multi-Engine**
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

Index	Part Number	Description	Quantity
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	MS20823-12D	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, IO-720	Opt
27	AN816-12D	Nipple, NPT to Flare, GO/GSO/IGSO 435/480/540	Opt
27	AN840-16D	Nipple, NPT to Flare, W670	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	567	Loctite Thread Sealant	1
31	AN6289-8D	Bulkhead Nut, O-235-540	2
31	AN6289-10D	Bulkhead Nut, IO-720	2
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.

1. 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 ****

2. 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 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.

13. 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.

2. Remove Champion P/N CH48212 Converter Stud from rear of accessory case.
DO NOT remove the Champion P/N CH48210 converter plate and gasket.

3. 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

9b. 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) *******

10. 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.

12. 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.

1. 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 ****

2. 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.

13. 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.

11. 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.

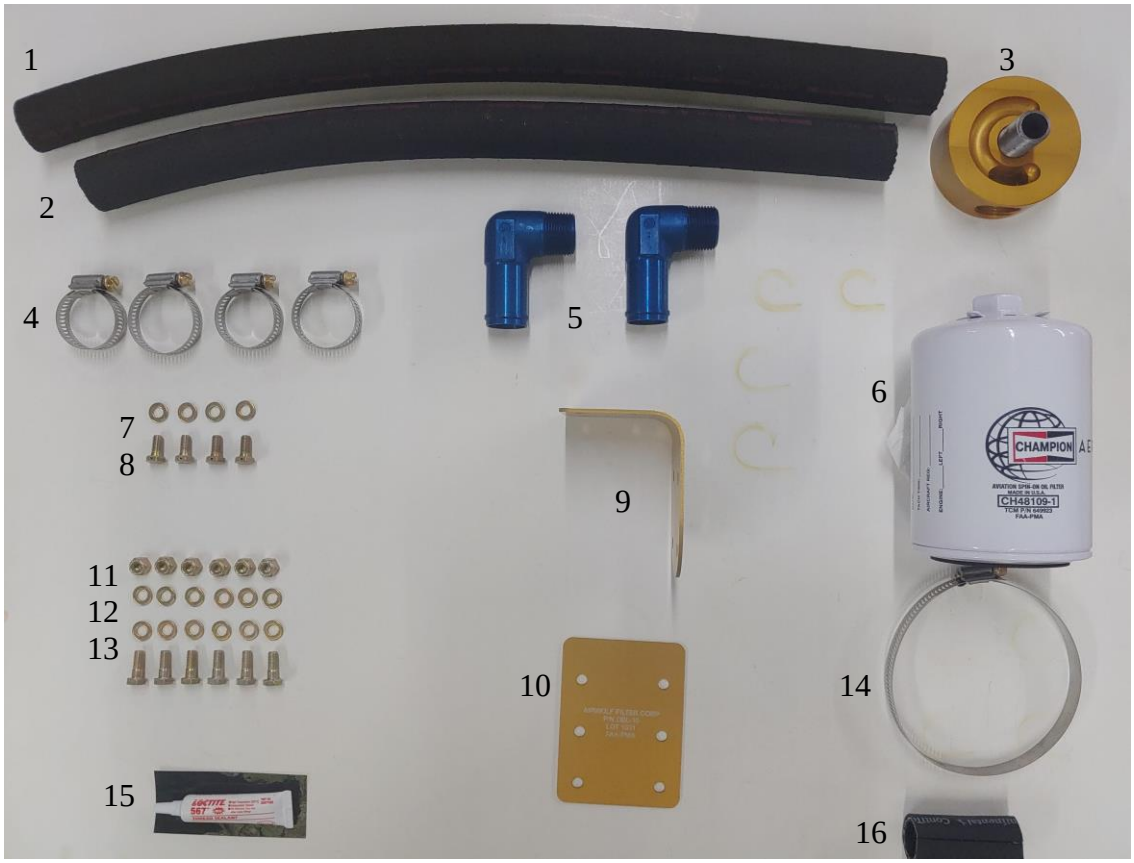
11. Install AFC-500 or AFC-600 oil filter (3) and torque per instructions on oil filter, and secure with MS20995-C safety wire.

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	Description	Quantity
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, ¼”	4
8	AN4H-4A	Bolt, ¼” 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, ¼” 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.

10 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 *******

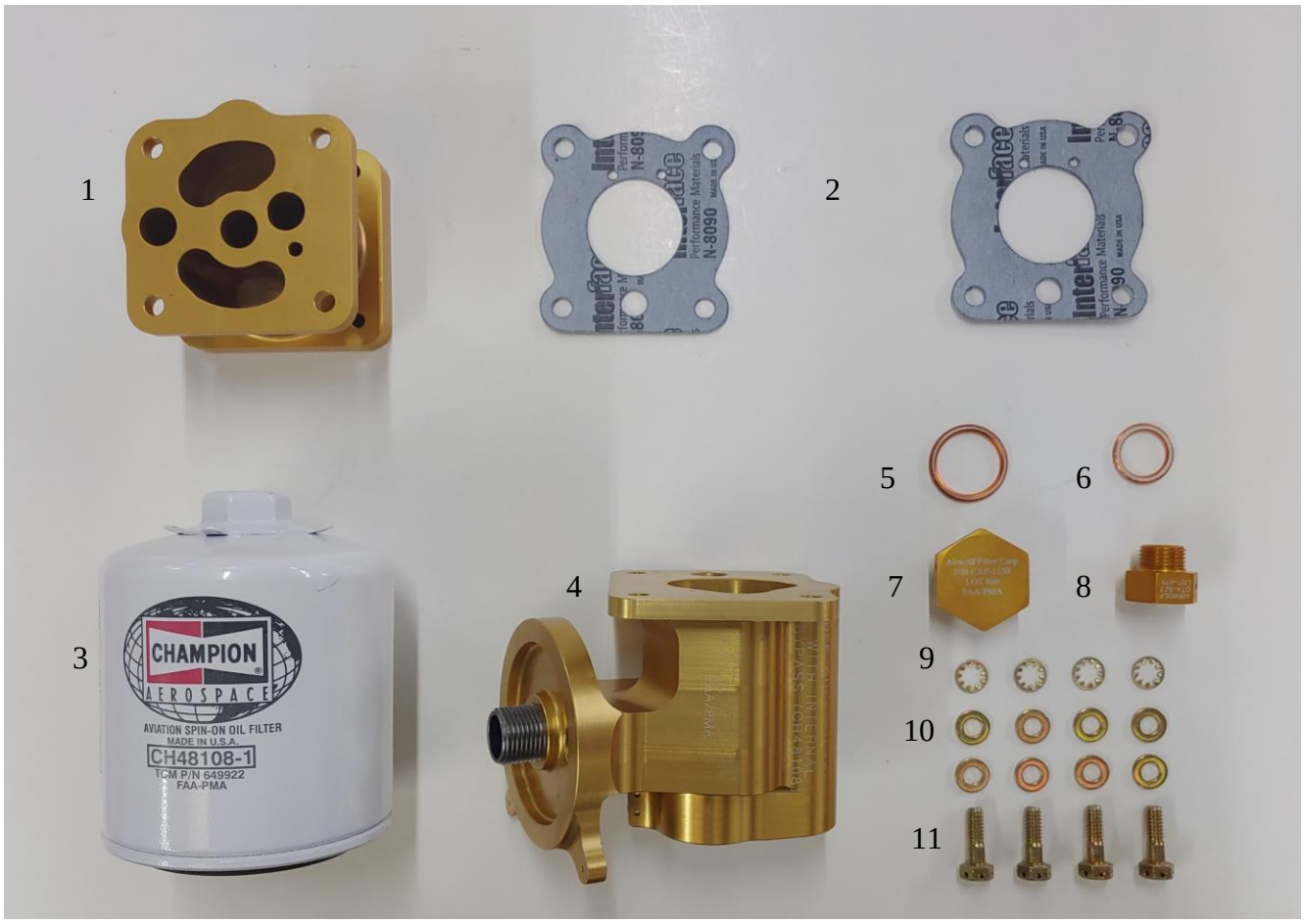
NEVER, EVER INSTALL AN OIL FILTER ON THE ENGINE OIL PUMP INLET. THE OIL LINES CAN COLLAPSE, THERE BY STARVING THE ENGINE OF OIL.

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	Quantity
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, ¼"	4
10	AN960-416	Washer, Flat ¼"	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.

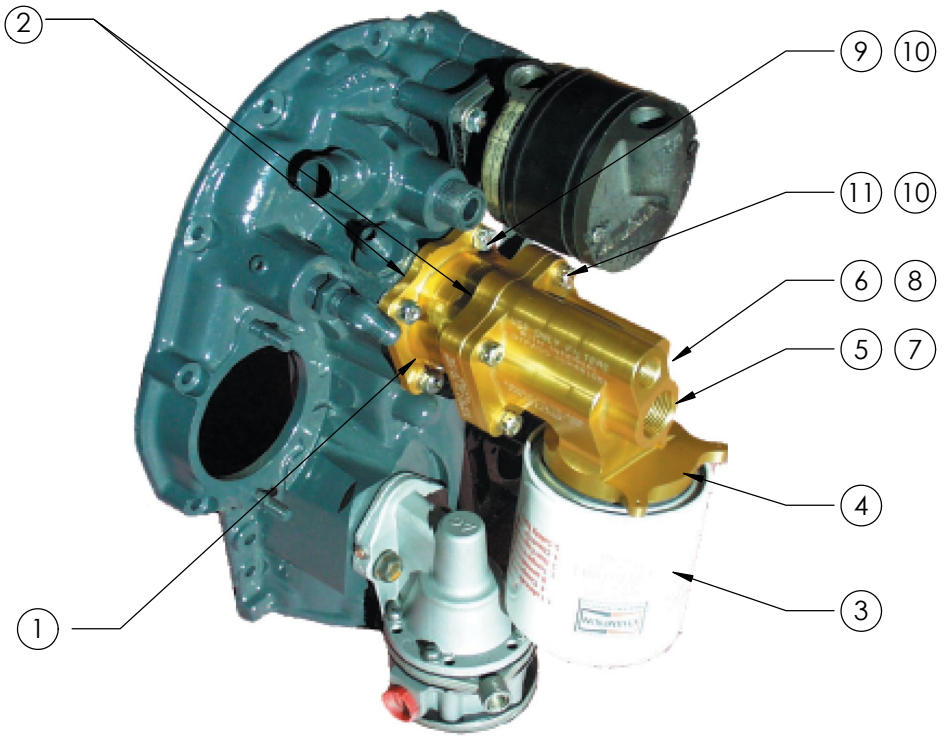
8. Run engine and check for leaks.

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

WEIGHT AND BALANCE REPORT

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

REVISIONS			
REV.	DESCRIPTION	BY	DATE



MATERIAL LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY.
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

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'	DRAWN	GM	12/28/2020
			APPR. BY	BDA	12/28/2020
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.		
		MATERIAL			
NEXT ASSY	USED ON	FINISH	COMMENTS:		
APPLICATION					

Airwolf Filter Corp.

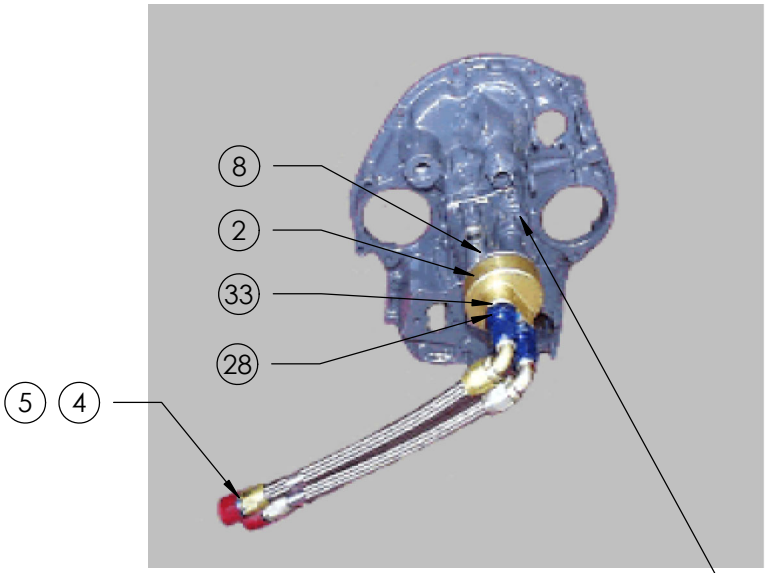
TITLE:
INSTALLATION DRAWING,
LYC-12 ADAPTER,
ENGINE - FULL FLOW
&
PLT-200 2" ADAPTER PLATE

SIZE	DWG. NO.	REV
A	AFC-D-0001	IR

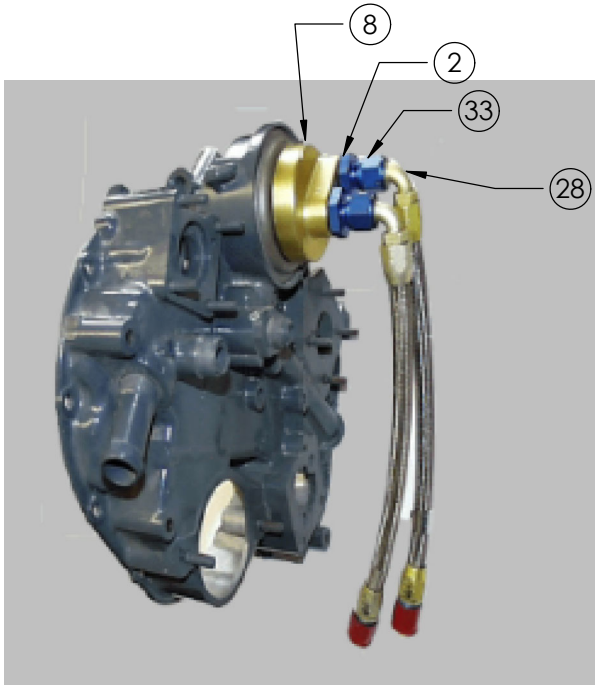
SCALE:	WEIGHT:	SHEET 1 OF 1

5 4 3 2 1

REVISIONS			
REV.	DESCRIPTION	BY	DATE



ORIGINAL LYCOMING
P/N 77852 ADAPTER



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

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'	DRAWN	GM	12/15/2020
			APPR. BY	BDA	12/15/2020
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.		
		MATERIAL			
NEXT ASSY	USED ON	FINISH	COMMENTS:		
APPLICATION					

Airwolf Filter Corp.

TITLE:

ASSEMBLY DRAWING
OFB-17 ADAPTER,
ENGINE - FULL FLOW

SIZE	DWG. NO.	REV
A	AFC-D-0013	IR

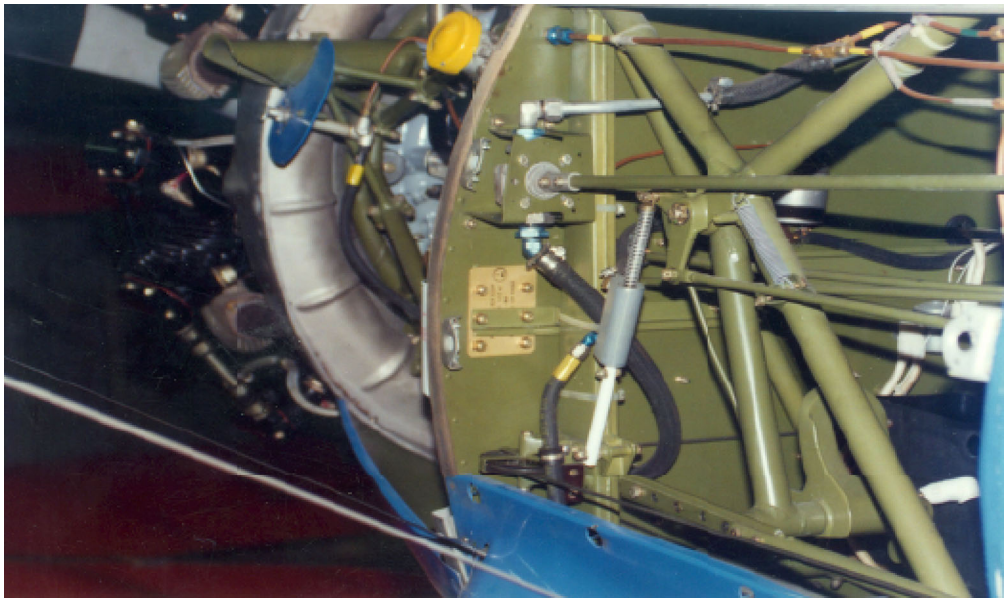
SCALE:	WEIGHT:	SHEET 1 OF 1

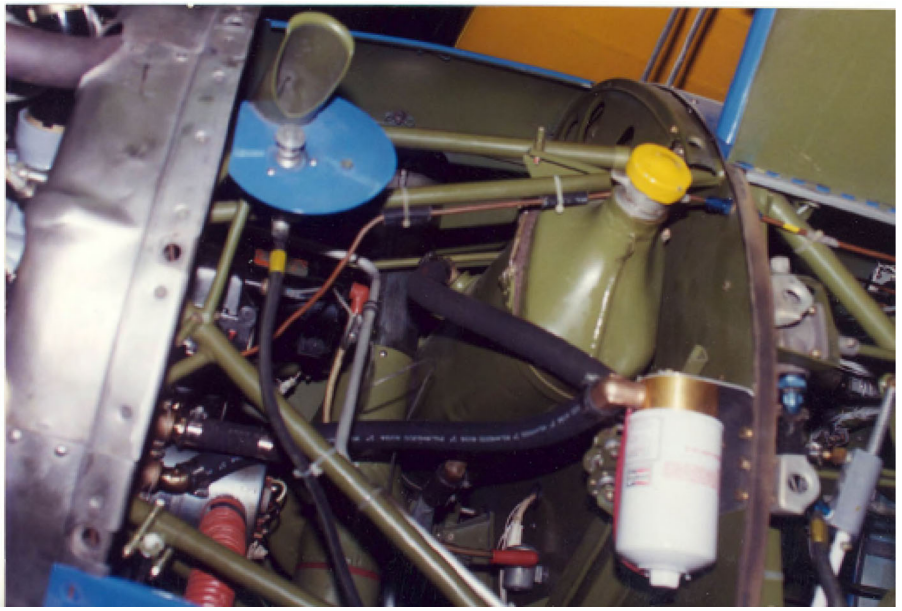
5 4 3 2 1

Part Number: AFC-K007

Date: 4-2-2021

REVISIONS			
REV.	DESCRIPTION	BY	DATE





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

Airwolf Filter Corp.

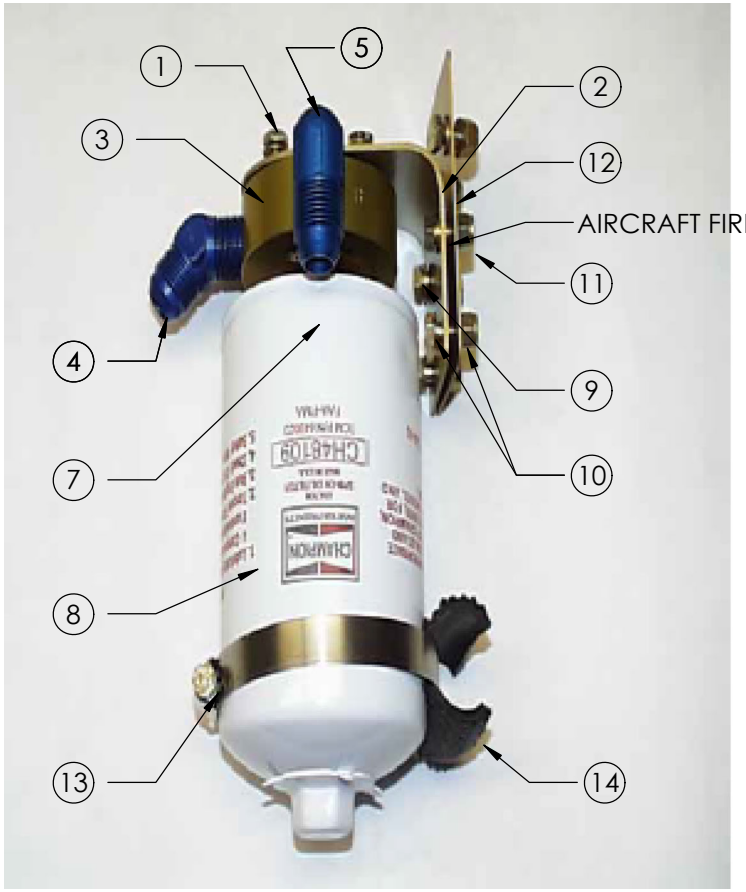
TITLE: BOEING STEARMAN, OFM-15, Oil Filter Mount Plate

SIZE	DWG. NO.	REV
A	AFC-D-0019	IR

SCALE:	WEIGHT:	SHEET 1 OF 1

5 4 3 2 1

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
3a	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	QS100M52H	CLAMP	1
14	MIL6000-1/2-2	DAMPENER	1

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'	DRAWN	GM	12/28/2020
			APPR. BY	BDA	12/28/2020
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.		
		MATERIAL			
NEXT ASSY	USED ON	FINISH	COMMENTS:		
APPLICATION					

Airwolf Filter Corp.

TITLE: ASSEMBLY DRAWING, OFM-11 OIL FILTER MOUNT PLATE - VERTICAL, DBL-10 DOUBLER PLATE & OFB-10 or OFB-11 OIL FILTER BASE

SIZE	DWG. NO.	REV
A	AFC-D-0024	IR

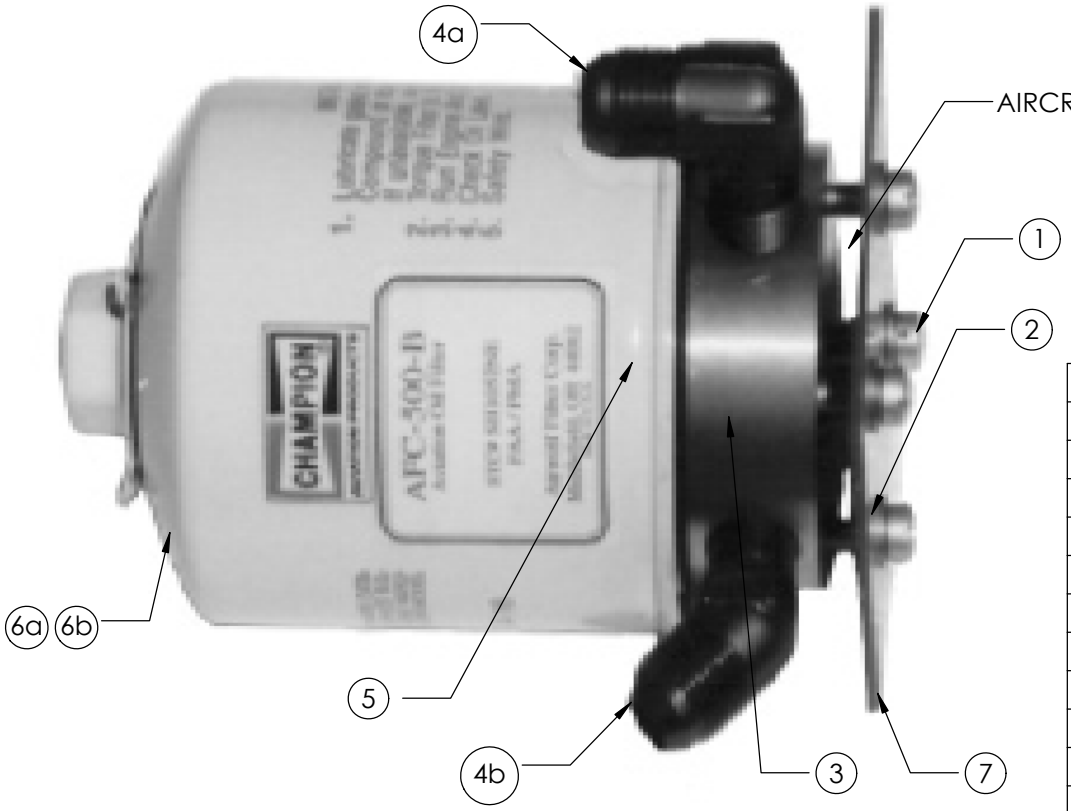
SCALE: | WEIGHT: | SHEET 1 OF 1

5 4 3 2 1

Part Number: AFC-K007

Date: 4-2-2021

REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	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: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'	DRAWN	GM	12/28/2020
			APPR. BY	BDA	12/28/2020
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.		
		MATERIAL			
NEXT ASSY	USED ON	FINISH	COMMENTS:		
APPLICATION					

Airwolf Filter Corp.

TITLE:
ASSEMBLY DRAWING,
OFM-10 OIL FILTER MOUNT PLATE - HORIZONTAL, & OFB-10 or -11 OIL FILTER BASE

SIZE	DWG. NO.	REV
A	AFC-D-0025	A

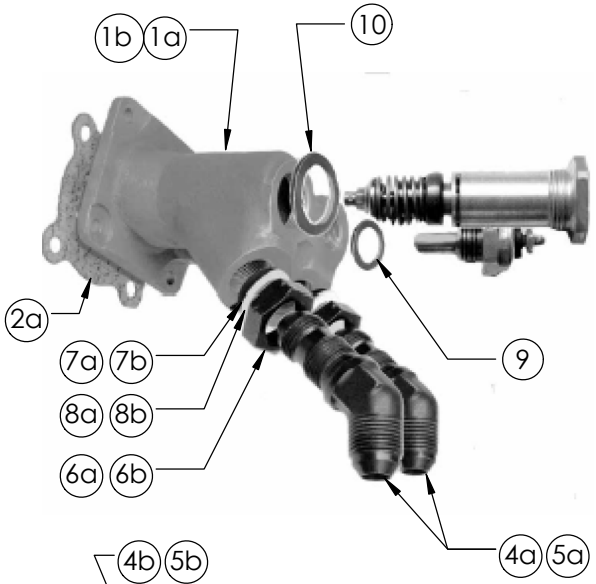
SCALE:	WEIGHT:	SHEET 1 OF 1

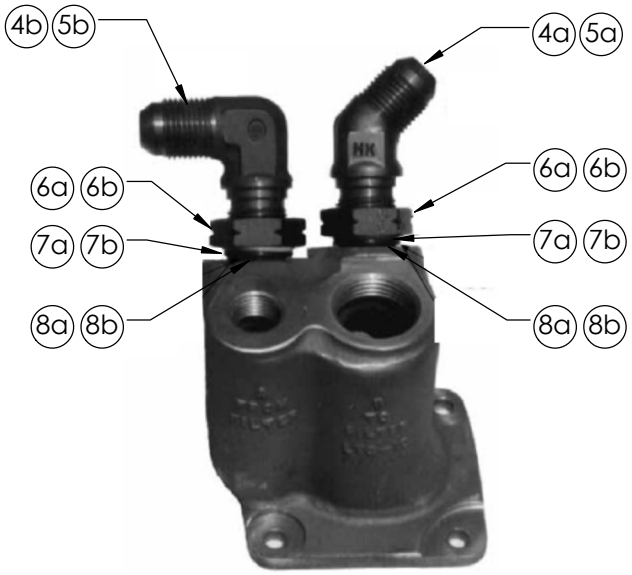
5 4 3 2 1

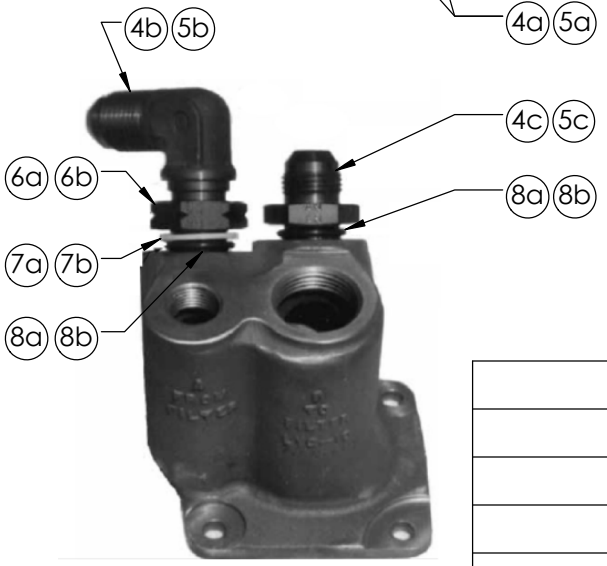
Part Number: AFC-K007

Date: 4-2-2021

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







MATERIAL LIST			
ITEM	PART NUMBER	DESCRIPTION	QTY.
1a	LYC-10	FULL FLOW ENGINE ADPATER, O235-540	1
1b	LYC-11	FULL FLOW ENGINE ADPATER, O235-540	1
2a	61173 OR Equivalent	ADAPTER BASE GASKET, O235-540	1
2b	12777 OR Equivalent	ADAPTER BASE GASKET, IO720 (NOT SHOWN)	1
2c	12776 OR Equivalent	ADAPTER BASE GASKET, IO720 (NOT SHOWN)	1
3a	PLT-12775	ADAPTER PLATE, IO720 (NOT SHOWN)	1
3b	PLT-12999	RESTRICTOR PLATE, O235 (NOT SHOWN)	1
4a	AN837-8D	45° BULKHEAD FITTING	2
4b	AN833-8D	90° BULKHEAD FITTING	OPT
4c	AN815-8D	UNION	OPT
5a	AN837-10D	45° BULKHEAD FITTING, IO720	2
5b	AN833-10D	90° BULKHEAD FITTING, IO720	OPT
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, IO720	2
8a	M83248/1-908	VITON "O" RING	2
8b	M83248/1-910	VITON "O" RING, IO720	2
9	MS35769-11	OIL TEMPERATURE SENSOR GASKET	1
10	MS35769-21	VERNATHERM® GASKET	1

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE
		DIMENSIONS ARE IN INCHES TOLERANCES: 1 PLACE ±.030 2 PLACE ±.010 3 PLACE ±.005 4 PLACE ±.0005 ANGULAR ±0°30'	DRAWN	GM	12/28/2020
			APPR. BY	BDA	12/28/2020
			ENG APPR.		
			MFG APPR.		
		INTERPRET GEOMETRIC TOLERANCING PER: ANSY Y 14.5H	Q.A.		
		MATERIAL			
NEXT ASSY	USED ON	FINISH	COMMENTS:		
APPLICATION					

Airwolf Filter Corp.

TITLE:
ASSEMBLY DRAWING,
LYC-10 ADAPTER,
ENGINE - FULL FLOW

SIZE	DWG. NO.	REV
A	AFC-D-0026	A

SCALE:	WEIGHT:	SHEET 1 OF 1

Part Number: AFC-K007

Date: 4-2-2021

5 4 3 2 1