



AIRWOLF FILTER CORP.

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TO THE MECHANIC:

This P/N AFC-K010 remote mount oil filter kit incorporates our generic STC approved for all Franklin 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-K010 kit and the STC# SA00433NY. If your particular aircraft is not listed on the AML, you will also need a field approval by your local FSDO. for this installation. This is necessary because the FAA only updates this list on a quarterly basis, and until your aircraft is listed, a field approval is required. If you are unsure whether or not you need a field approval, please call us directly.

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

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

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

FAA APPROVED

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OCT 31 2012

CHICAGO AIRCRAFT
CERTIFICATION OFFICE
CENTRAL REGION

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

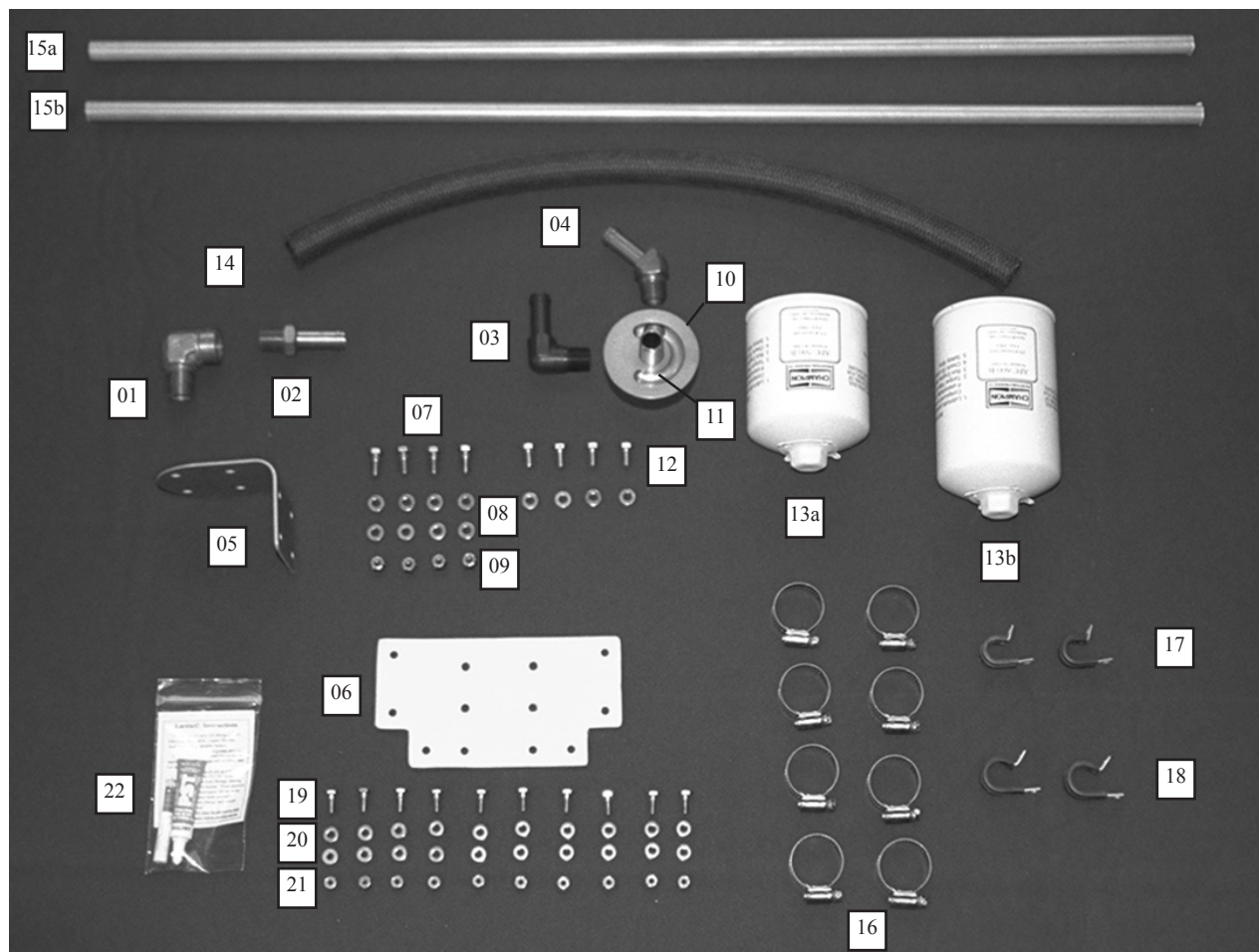
DATA PERTINENT TO ALL INSTALLATIONS

Prior to installing the filter kit on the aircraft, weigh the filter kit, add the weight of the hoses, and subtract the oil screen or oil filter adapter removed from the engine, and determine the net weight being added to the aircraft for determining the weight and balance of the aircraft later. Once the filter kit is installed on the aircraft, if you choose to purchase the hoses from Airwolf, we will supply you with the Titeflex 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-K010

Applicability: Franklin powered Single and Multi Engine Aircraft less than 450hp. having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 11/01/95
Revision: B
Date: 11/11/10

Parts List No. AFC-K010-PL

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	AN914-4D	Elbow, Pipe, 90°	(1)
02.	AN840-10D	Adapter, Pipe to Hose, Straight	(1)
03.	AN842-10D	Elbow, Pipe to Hose, 90°	(1)
04.	AN844-10D	Elbow, Pipe to Hose, 45°	(1)
05.	OFM-11	Oil Filter Mount - Vertical	(1)
06.	DBL-11	Doubler Plate, Stinson	(1)
07.	AN4-5A	Bolt	(6)
08.	AN960-416	Flat Washer	(16)
09.	MS20365-428A	Locknut	(6)
10.	OFB-11	Oil Filter Base, -10 Ports	(1)
11.	OFS-10	Oil Filter Stud	(1)
12.	AN4H-4A	Bolt, Drilled Head	(4)
13a.	AFC-500 or	Oil Filter, Std, or Equivalent [Champion CH48108]	(1)
13b.	AFC-600	Oil Filter, Long, or Equivalent [Champion CH48109]	(1)
14.	MIL6000-5/8-24	MIL- H-6000B Hose, 5/8" I.D. x 24" Length	(1)
15a.	TUB-2950	Oil Line, "From" Oil Filter "To" Oil Cooler	(1)
15b.	TUB-2550	Oil Line, "From" Engine "To" Oil Filter	(1)
16.	QS100M10H	Clamp, Worm Gear	(8)
17.	MS21919DG-8	Adel Clamp	(2)
18.	MS21919DG-10	Adel Clamp	(2)
19.	AN3-4A	Bolt	(10)
20.	AN960-10	Flat Washer	(20)
21.	MS20365-1032A	Locknut	(10)
22.	Loctite	Loctite® 567 PST Thread Sealant	(1)
23.	AFC-K010-II	Installation Instructions	(1)
24.	AFC-K010-MI	Instructions for Continued Airworthiness	(1)
25.	AFC-K010-PL	Parts List	(1)

Oil Filter Kit AFC-K010-A

Applicability: Franklin powered Single and Multi Engine
Aircraft less than 450hp.
having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 11/01/95
Revision: B
Date: 11/11/10

Installation Instructions No. AFC-K010-II

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. Open cowl and remove bottom cowl. Note: Raise LH side cowl for better access and lighting.
02. Remove the fore and aft straight fittings from the oil pressure bypass valve located at the front LH side of the engine.
03. ******* SEE WARNING (B) BELOW *******
Install 90° pipe elbow (01) into aft hole of oil pressure bypass. Insert Pipe to Hose adapter (02) into previously installed 90° pipe elbow (01) and torque to specs.
04. Install previously removed Pipe to Hose adapter (02) into foreword hole of oil pressure bypass and torque to specs.
05. ******* SEE WARNING (A) BELOW *******
Using installation drawing AFC-D-0044 as a reference, locate the LH rear exhaust pipe hangar strap on the firewall. Position doubler plate (06) as per drawing for drilling of holes. Using the doubler plate (06) as a drilling template, locate and drill 6ea. .203 holes using a 13/64" drill and 6ea. .281 holes using a letter "K" drill.
06. Place doubler plate (06) on inside of firewall. Secure to firewall using 6ea. bolts (19), washers (20), and locknuts (21).
07. Secure oil filter mount (05) onto first two rows of holes of doubler plate (06) using 6ea. bolts (07), washers (08), and locknuts (09).
08. Install oil filter base (10) onto oil filter mount (05) using 4ea. bolts (12) and washers (08). Secure with .032 MS20995-C safety wire
09. ******* SEE WARNING (B) BELOW *******
Install 90° fitting (03) into Port "A" and 45° fitting (04) into Port "B" of oil filter base (10) and tighten referencing position in assembly drawings.
10. ******* SEE WARNING (C) BELOW *******
Cut, form and bend supplied oil lines (15a & (15b)) to the prints supplied. Bead all ends I/A/W AND10060-5/8 Type A specs.
11. Per installation drawing AFC-D-0044, install previously made oil line (15b) connecting fitting (02) on the oil bypass assembly to Port "B" on the filter base. Per installation drawing AFC-D-0044, install hose assy (15a) from Port "A" on the filter base and connect to the Intake side of the oil cooler. Connect hose (15a) and (15b) to oil lines appropriate length of MIL-H-6000B hose (14) and secure with 8ea. worm gear clamps (16) supplied and tighten.
12. Per installation drawing AFC-D-0044, secure oil lines (15a) and (15b) to vertical support on engine frame using adel clamps (17) & (18), bolts (19), washers (20), and nuts (21) provided.
13. Install oil filter (13a) or (13b), torque per instructions on oil filter, and secure with .032 MS20995-C safety wire.
14. Reinstall and close top and bottom cowl.
15. Run engine and check for leaks.
16. Determine weight and balance, initiate 337 form, and update the equipment list.

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

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

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

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

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

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

Oil Filter Kit AFC-K010-B

Applicability: Franklin powered Maule Aircraft
Aircraft less than 450hp.
having firewalls of .021 ASTM A527 galvanized steel or equivalent.

First Release: 11/01/95
Rvision: B
Date: 11/11/10

Installation Instructions No. AFC-K010-II

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 oil hose connecting the oil cooler distribution block to the oil cooler.
03. Locate and determine proposed oil filter location on firewall.
04. Using the vertical oil filter mount (05) as a drilling template, locate and drill mounting holes using a letter "F" drill.

******* SEE WARNING (A) BELOW *******

05. Secure the vertical oil filter mount (05) to Fwd side of firewall and doubler plate to Aft side of firewall using bolts (07), washers (08), and nuts (09).

******* SEE WARNING (B) BELOW *******

06. Install any combination of AN fittings into oil filter base (10). Mount to vertical oil filter mount (05.) using bolts (12), washers (08), and secure with .032 MS20995-C safety wire.

******* SEE WARNING (C) BELOW *******

07. Determine hose lengths and order appropriate length hoses. 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.
08. Install assembled hose assy's connecting the outlet port on the oil cooler distribution block to the ["B" port] on the oil filter base (10). Connect the outlet ["A" port] of the oil filter base (10) to the inlet of the oil cooler. Torque hoses to 270-350 in/ lbs.

Note: You always filter oil at its hottest point, which is before the oil cooler. Installing the filter in front of the oil cooler also keeps the oil cooler from being a trash collector.

09. Install oil filter (13b) 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.

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

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

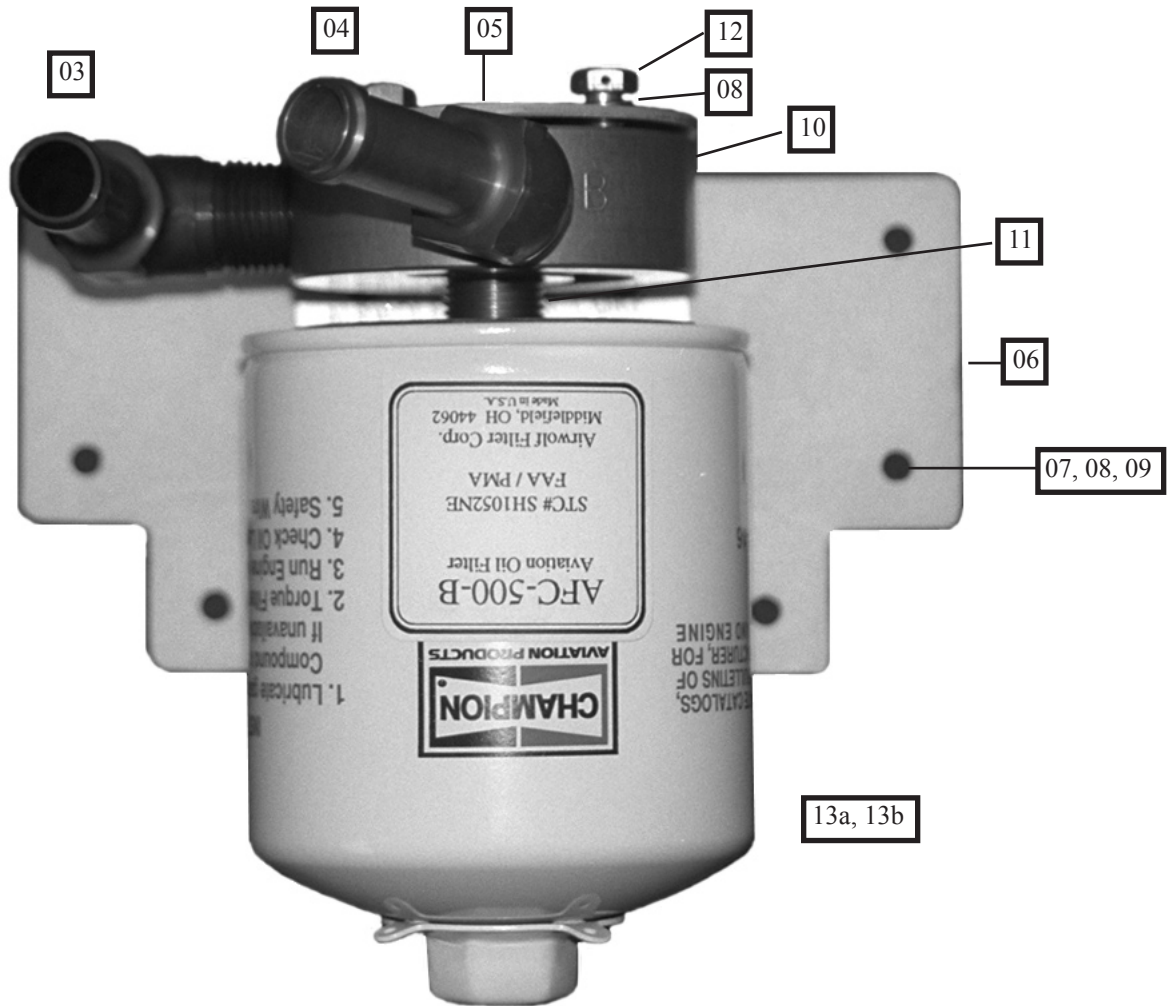
******* WARNING (B) *******

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

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

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

INSTALLATION DRAWING# AFC-D-0043



Material List

Index	Part Number	Description	Quantity
03.	AN842-10D	Elbow, Pipe to Hose, 90°	(1)
04.	AN844-10D	Elbow, Pipe to Hose, 45°	(1)
05.	OFM-11	Oil Filter Mount - Vertical	(1)
06.	DBL-11	Doubler Plate, Stinson	(1)
10.	OFB-11	Oil Filter Base, -10 Ports	(1)
11.	OFS-10	Oil Filter Stud	(1)
12.	AN4H-4A	Bolt, Drilled Head	(4)
13a.	AFC-500 or	Oil Filter, Std	(1)
13b.	AFC-600	Oil Filter, Long	(1)
19.	AN3-4A	Bolt	(6)
20.	AN960-10	Flat Washer	(12)
21.	MS20365-1032A	Locknut	(6)

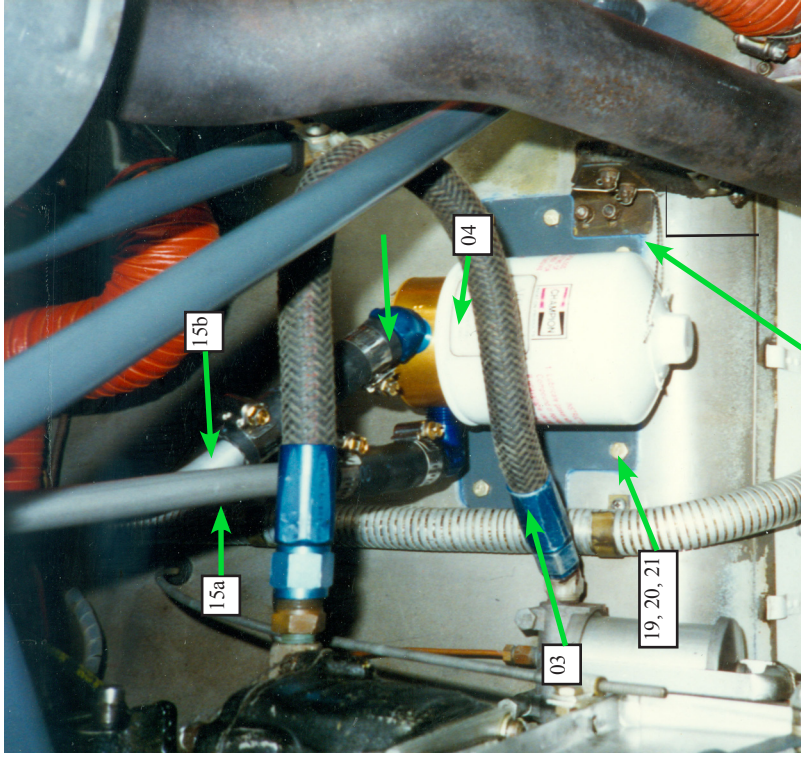
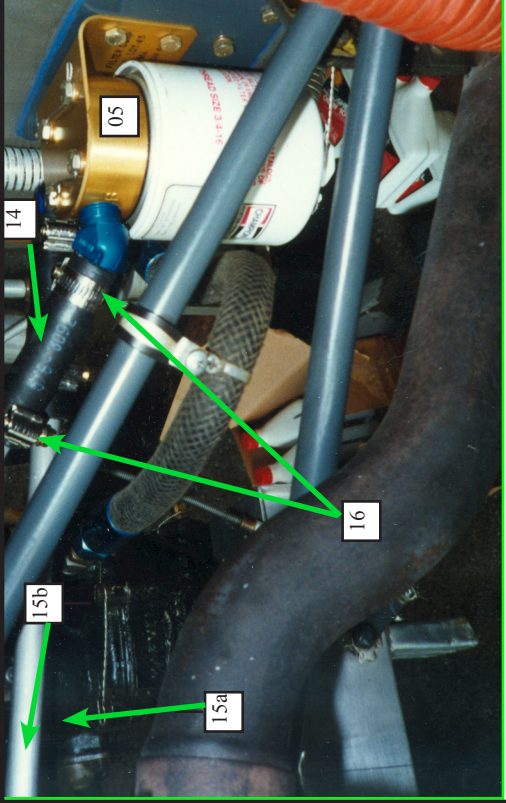
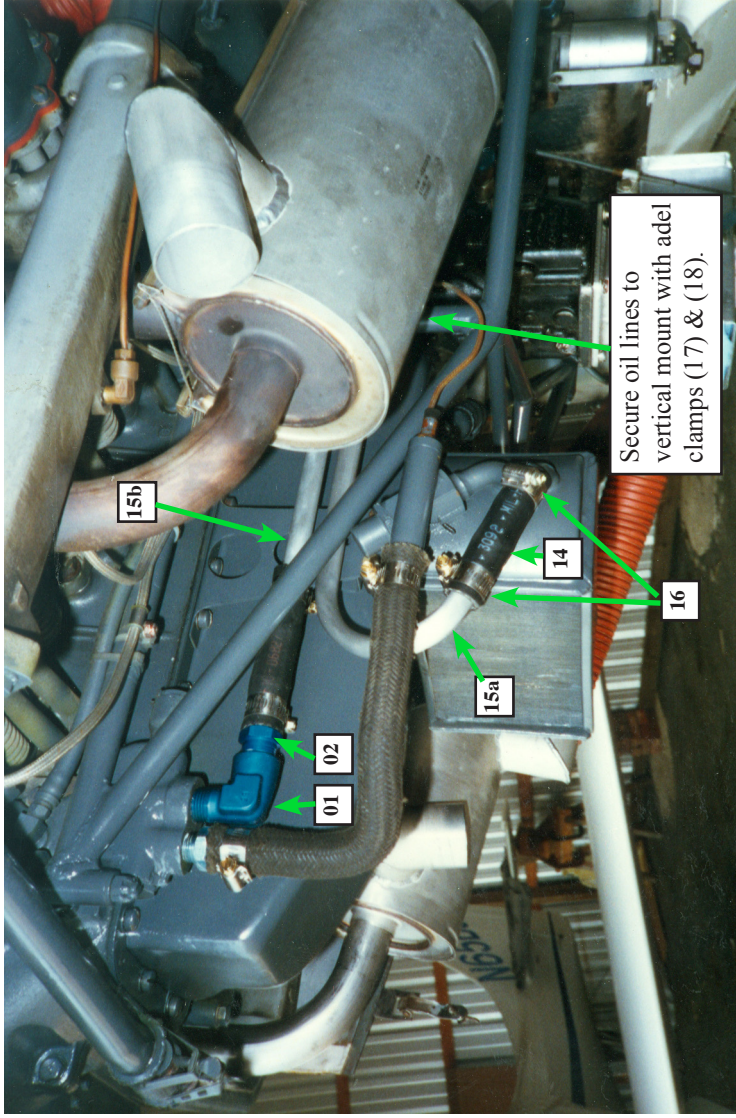
Airwolf Filter Corp.

Assembly Drawing.
Assembly of Airwolf Filter Kit for Franklin Engines.

11/01/95

Dwg# AFC-D-0043

INSTALLATION DRAWING# AFC-D-0044



Locate doubler plate (06) with lower LH exhaust support bracket and drill mounting holes. After drilling, reposition doubler to cabin side of firewall

Index	Part Number	Description	Quantity
01.	AN914-4D	Elbow, Pipe, 90°	(1)
02.	AN840-10D	Adapter, Pipe to Hose, Straight	(1)
03.	AN842-10D	Elbow, Pipe to Hose, 90°	(1)
04.	AN844-10D	Elbow, Pipe to Hose, 45°	(1)
05.	OEM-11	Oil Filter Mount - Vertical	(1)
14.	MIL6000-3/4-24	Hose Assy, MIL-H-6000B, 2' Length	(1)
15a.	TUB-2950	Oil Line, 5052-0 x 29-1/2" Length	(2)
15b.	TUB-2550	Oil Line, 5052-0, x 25-1/2" Length	(2)
16.	QSI00M10H	Clamp, Worm Gear	(8)
17.	MS21919WDG8	Adel Clamp	(2)
18.	MS21919WDG10	Adel Clamp	(2)

Airwolf Filter Corp.

Installation of and hose routing of Airwolf Filter Kit on Stinson 108 aircraft powered by Franklin engines.

11/01/95

Dwg# AFC-D-0044



Reference Data
for
AFC-AFC-K010
for
STC SA00433NY
Oil Filter Kit
AFC-K010

Dated: 4/2/2021

Airwolf Filter, Corp
12801 Hwy. 75 N.
OKMULGEE, OK 74447
(918) 561-8696 Ph
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READ THIS BEFORE INSTALLING OIL FILTER KITS, DATA PERTINENT TO ALL INSTALLATIONS

TO THE MECHANIC:

This P/N AFC-K010 remote mount oil filter kit incorporates our STC approved for all Franklin powered aircraft up to 450 hp. 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- K010 kit and the STC# SA00433NY. If your aircraft is not listed on the AML, you will also need a field approval by your local FSDO. for this installation. This is necessary until your aircraft is listed, a field approval is required. If you are unsure whether you need a field approval, please call us directly.

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

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

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

DATA PERTINENT TO ALL INSTALLATIONS

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

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

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

DO NOT USE TEFLON TAPE ON FITTINGS.

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

TIP

How to get correct length of hose

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

Thank you for taking the time to read this.

WARNINGS & NOTES

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

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

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

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

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

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

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

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

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

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

NOTE:

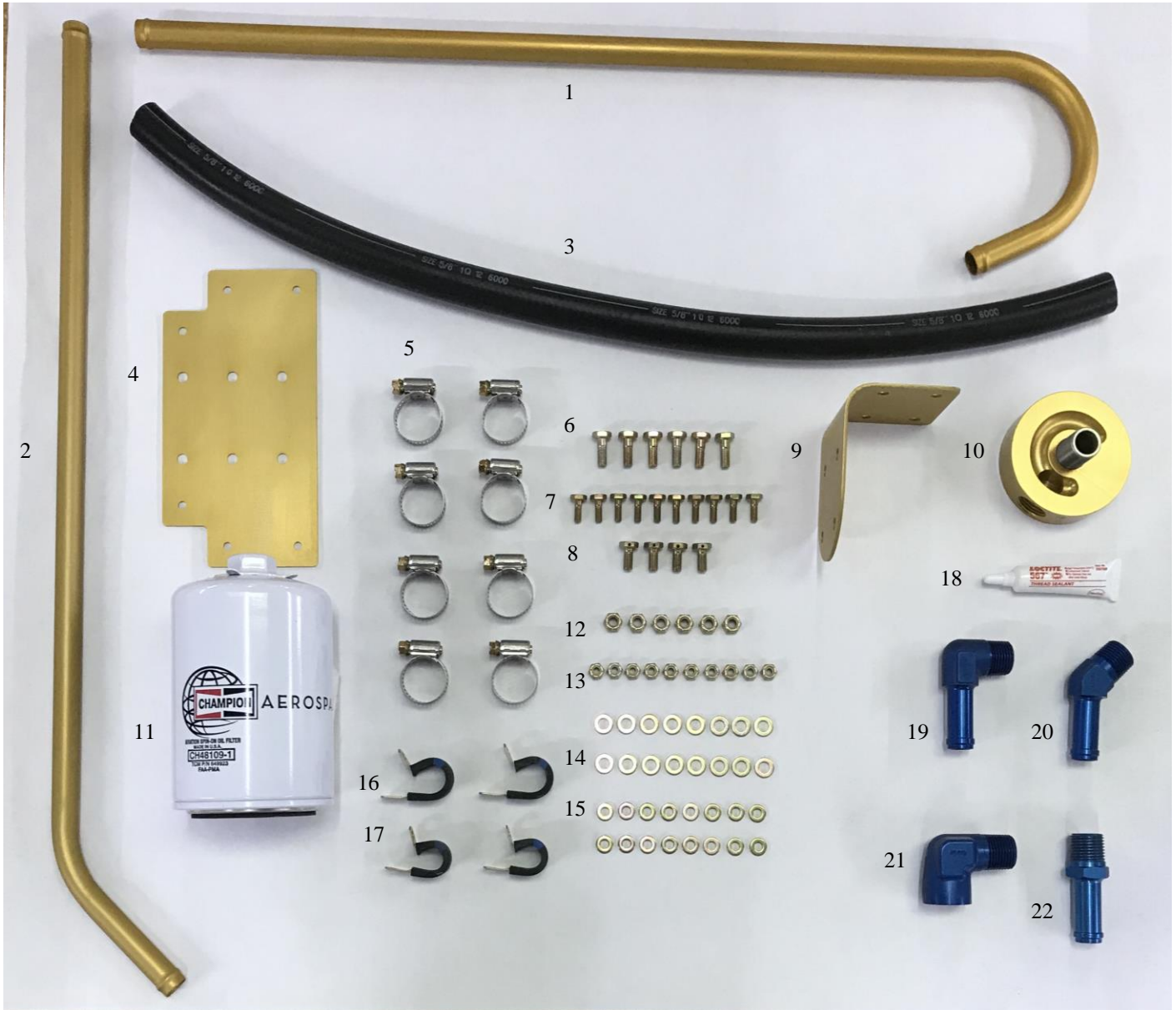
COMMON TO ALL INSTALLATIONS

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

Illustrated Parts List No. AFC-K010-PL

Applicability:

Franklin Powered single and multi-Engine Aircraft less than 450 hp
Having firewalls of .021 ASTM A527 galvanized steel or equivalent.



Parts Illustration Franklin Engine Series

Parts List No. AFC-K010-PL
(see Illustration)
Franklin Engine Series

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
1	TUB-2950	Oil line, "From" Oil Filter "to" Oil Cooler	1
2	TUB-2550	Oil line, "From" Engine "to" Oil Filter	1
3	MIL6000 5/8-24	MIL-H-6000B Hose 5/8" I.D. x 24" Length	1
4	DBL-11	Doubler Plate, Stinson	1
5	QS100M10H	Clamp, Worm Gear	8
6	AN4-5A	Bolt	6
7	AN3-4	Bolt	10
8	AN4H-4A	Bolt, Drilled Head	4
9	OFM-11	Oil Filter Mount Vertical	1
10	OFB-11	Oil Filter Base, -10 Ports	1
11	AFC-500 or AFC-600	Oil Filter, or Equivalent [Champion CH48108 or CH48109]	1
12	MS20365-428A	Locknut	6
13	MS20365-1032A	Locknut	10
14	AN960-416	Flat washer	16
15	AN960-10	Flat Washer	16
16	MS21919-10	Adel Clamp	2
17	MS21919-8	Adel Clamp	2
18	567	Loctite Thread Sealant	1
19	AN842-10D	Fitting, Elbow Pipe to Hose, 90°	1
20	AN844-10D	Fitting, Elbow Pipe to Hose, 45°	1
21	AN914-4D	Fitting, Elbow Pipe to Pipe, 90°	1
22	AN840-10D	Fitting, Adapter Pipe to Hose, Straight	1

Installation Instructions No. AFC-K010-II-A

Applicability: Franklin Powered single and multi-Engine Aircraft less than 450 hp
Having firewalls of .021 ASTM A527 galvanized steel or equivalent.

1. Open cowl and remove bottom cowl. Note: Raise LH side cowl for better access and lighting.
2. Remove the fore and aft straight fittings from the oil pressure bypass valve located at the front LH side of the engine.

******* SEE WARNING (A) *******
3. Per Illustrated Parts List, Install 90° pipe elbow (21) into aft hole of oil pressure bypass. Insert Pipe to Hose adapter (22) into previously installed 90° pipe elbow (21) and torque to specs.
4. Install previously removed Pipe to Hose adapter into forward hole of oil pressure bypass and torque to specs.
5. Per installation drawing AFC-D-0044, locate the LH rear exhaust pipe hangar strap on the firewall. Position doubler plate (DBL-11) as per drawing for drilling of holes. Using the doubler plate (DBL-11) as a drilling template, locate and drill 6ea. .203 holes using a 13/64" drill and 6ea. .281 holes using a letter "K" drill.
6. Per Installation drawing AFC-D-0044, Place doubler plate (DBL-11) on inside of firewall. Secure to firewall using 6ea. bolts (6), washers (14), and locknuts (12).
7. Per Assembly drawing AFC-D-0043, Secure oil filter mount (3) onto first two rows of holes of doubler plate (4) using 6ea. bolts (AN4-5A), washers (AN960-416), and locknuts (MS20365-428A).
8. Per Assembly drawing AFC-D-0043, install oil filter base (5) onto oil filter mount (3) using 4ea. bolts (7) and washers. Secure with .032 MS20995-C safety wire.

******* SEE WARNING (A) *******
9. Per Assembly drawing AFC-D-0043, Install 90° fitting (1) into Port "A" and 45° fitting (2) into Port "B" of oil filter base (5) and tighten referencing position in assembly drawings.

******* SEE WARNING (B) *******
10. Per installation drawing AFC-D-0044, install oil line (7b) connecting fitting (2) on the oil bypass assembly to Port "B" on the filter base. Per installation drawing AFC-D-0044, install oil line (7a) from Port "A" on the filter base and connect to the [Intake](#) side of the oil cooler. Connect hose (7a) and (7b) to oil lines using appropriate length of MIL-H-6000B hose (6) and secure with 8ea. worm gear clamps (8) supplied and tighten.
11. Per installation drawing AFC-D-0044, secure oil lines (7a) and (7b) to vertical support on engine frame using Adel clamps (9) & (10), bolts (12), washers (13), and nuts (14) provided.
12. Install oil filter, torque per instructions on oil filter, and secure with .032 MS20995-C safety wire.
13. Reinstall and close top and bottom cowl.
14. Run engine and check for leaks.
15. Determine weight and balance, initiate 337 form, and update the equipment list.

Installation Instructions No. AFC-K010-II-B

Applicability: Franklin Powered Maule Aircraft
Having firewalls of .021 ASTM A527 galvanized steel or equivalent.

1. Gain access to the engine compartment.
 2. Locate the oil hose connecting the oil cooler distribution block to the oil cooler.
 3. Locate and determine proposed oil filter location on firewall.
 4. Per Assembly drawing AFC-D-0043, Using the vertical oil filter mount (3) as a drilling template, locate and drill mounting holes using a letter "F" drill.
 5. Per Illustrated Parts List, Secure the vertical oil filter mount (9) to Fwd side of firewall and doubler plate to Aft side of firewall using bolts (6), washers (14), and nuts (12). using 6ea. bolts (AN4-5A), washers (AN960-416), and locknuts (MS20365-428A).

******* SEE WARNING (A) *******
 6. Install any combination of AN fittings into oil filter base (10). Mount to vertical oil filter mount (9.) using bolts (8), washers (14), and secure with .032 MS20995-C safety wire.

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

******* SEE TIP on Page 4 *******
 7. Determine hose lengths and order appropriate length hoses. Last digits after the dash in part number is the length of the hose in inches and in eighths of an inch. Ex. P/N for a fire sleeved hose 24 7/8" long is F13000008-0247.
 8. Install assembled hose assy's connecting the outlet port on the oil cooler distribution block to the ["B" port] on the oil filter base (10). Connect the outlet ["A" port] of the oil filter base (10) to the inlet of the oil cooler. Torque hoses to 270-350 in/ lbs.
- Note: You always filter oil at its hottest point, which is before the oil cooler. Installing the filter in front of the oil cooler also keeps the oil cooler from being a trash collector.
9. Install oil filter (11) 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.

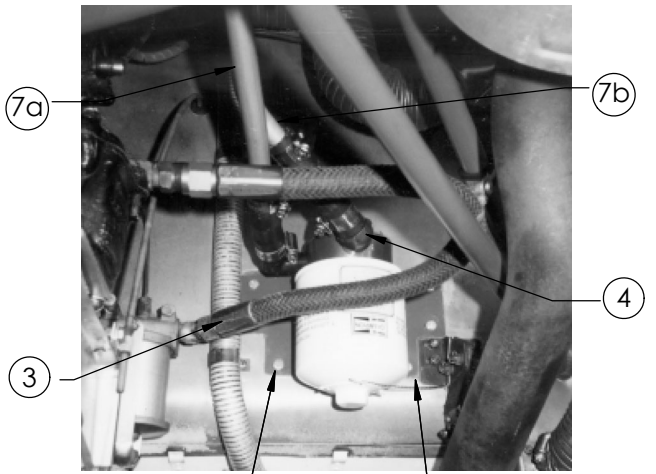
**WEIGHT AND BALANCE REPORT
ALL MODELS**

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

AIRWOLF FILTER CORP PROPRIETARY

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
A	REDRAWN IN SOLIDWORKS	GM	12-8-2020



SECURE OIL LINES TO VERTICAL MOUNT WITH ADEL CLAMPS (9) & (10)

LOCATE DOUBLER PLATE (11) WITH LOWER LH EXHAUST SUPPORT BRACKET AND DRILL MOUNTING HOLES. AFTER DRILLING, REPOSITION DOUBLER TO CABIN SIDE OF FIREWALL.

ITEM	PART NUMBER	MATERIAL LIST DESCRIPTION	QTY.
1	AN914-4D	ELBOW, PIPE, 90°	1
2	AN840-10D	ADAPTER, PIPE TO HOSE, STRAIGHT	1
3	AN842-10D	ELBOW, PIPE TO HOSE, 90°	1
4	AN844-10D	ELBOW, PIPE TO HOSE, 45°	1
5	OEM-11	OIL FILTER MOUNT - VERTICAL	1
6	MIL 6000-3/4"-24	HOSE ASSY, MIL-H-6000B, 2' LENGTH	1
7a	TUB-2950	OIL LINE, 5052-0 X 29-1/2" LENGTH	2
7b	TUB-2550	OIL LINE, 5052-0 X 25-1/2" LENGTH	2
8	QS100M10H	CLAMP, WORM GEAR	8
9	MS21919WDG8	ADEL CLAMP	2
10	MS21919WDG10	ADEL CLAMP	2
11	DBI-11	DOUBLER PLATE, STINSON	1
12	AN3-4A	BOLT	6
13	AN960-10	FLAT WASHER	6
14	MS20365-1032A	LOCKNUT	6

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

Airwolf Filter Corp.		
TITLE: INSTALLATION OF AND HOUSING ROUTING OF AIRWOLF FILTER KIT ON STINSON 108 AIRCRAFT POWERED BY FRANKLIN ENGINES		
SIZE A	DWG. NO. AFC-D-0044	REV A
SCALE:	WEIGHT:	SHEET 1 OF 1

FAA APPROVED MODEL LIST (AML) SA00433NY

**AIRWOLF FILTER CORP
FOR INSTALLING
REMOTE MOUNTOIL FILTER KIT**

Issue Date: May 7, 1996

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE	
1	AERMACCHI S.p.A.	S.205-22R	A9EU	14 CFR PART 23 and Amendments Listed in TCDS No. A9EU	AFC-K010	B 11/11/2010*	10/03/2012
2	AMERICAN CHAMPION AIRCRAFT CORP	7ACA	A-759	CAR PART 4a and Amendments Listed in TCDS No. A-759	AFC-K010	B 11/11/2010*	10/03/2012
3	ARIZONA AEROSPACE FOUNDATION (Taylorcraft)	DF-65	A-746	CAR PART 4a and Amendments Listed in TCDS No. A-746	AFC-K010	B 11/11/2010*	10/03/2012
4	BELLANCA AIRCRAFT CORPORATION	14-13, 14-13-2, 14-13-3, 14-13-3W	A-773	CAR PART 4a and Amendments Listed in TCDS No. A-773	AFC-K010	B 11/11/2010*	10/03/2012
5	BURL A. ROGERS (Aeronca)	15AC, S15AC with Franklin engine installed	A-802	CAR PART 3 and Amendments Listed in TCDS No. A-802	AFC-K010	B 11/11/2010*	10/03/2012
6	CESSNA AIRCRAFT COMPANY	170, 170A, 170B with Franklin engine installed	A-799	CAR PART 3 and Amendments Listed in TCDS No. A-799	AFC-K010	B 11/11/2010*	5/7/1996
7	CESSNA AIRCRAFT COMPANY	172, 172A, 172B, 172C, 172D, 172E, 172F, 172G, 172H, 172I, 172K, 172L, 172M, 172N, 172P, 172Q with Franklin engine installed	3A12	CAR PART 3 and Amendments Listed in TCDS No. 3A12	AFC-K010	B 11/11/2010*	5/7/1996
8	COMMONWEALTH	180F, 190F	A-729	CAR PART 4a and Amendments Listed in TCDS No. A-729	AFC-K010	B 11/11/2010*	05/07/1997
9	CONSOLIDATED-VULTEE AIRCRAFT CORP, STINSON DIVISION	10-A (Army L-9B)	A-738	CAR PART 4a and Amendments Listed in TCDS No. A-738	AFC-K010	B 11/11/2010*	10/03/2012

FAA APPROVED MODEL LIST (AML) SA00433NY
AIRWOLF FILTER CORP
FOR INSTALLING
REMOTE MOUNT OIL FILTER KIT

Issue Date: May 7, 1996

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE	
10	GENERAL DYNAMICS CORPORATION	L-13 Series with Franklin O-425-9 engines	AR-10	CAR PART 8 and Amendments Listed in TCDS No. AR-10	AFC-K010	B 11/11/2010*	10/03/2012
11	HELICOPTER TECHNIK MUNCHEN	FJ	H5EU	14 CFR PART 27 and Amendments Listed in TCDS No. H5EU	AFC-K010	B 11/11/2010*	10/03/2012
12	HELIO AIRCRAFT LLC	15A	3A3	CAR PART 4a and Amendments Listed in TCDS No. 3A3	AFC-K010	B 11/11/2010*	10/03/2012
13	JOE RANKIN (Porterfield)	FP-65	A-720	CAR PART 4a and Amendments Listed in TCDS No. A-720	AFC-K010	B 11/11/2010*	10/03/2012
14	MAULE AEROSPACE TECHNOLOGY, INC	M-4-180C, M-4-180S, M-4-180T, M-4-220, M-4-220C, M-4-220S, M-4-220T, M-5-220C	3A23	CAR PART 3 and Amendments Listed in TCDS No. 3A23	AFC-K010	B 11/11/2010*	10/03/2012
15	SILVERCRAFT S.co.pa	SH-4	H2EU	14 CFR PART 27 and Amendments Listed in TCDS No. H2EU	AFC-K010	B 11/11/2010*	10/03/2012
16	SKY ENTERPRISES, INC. (Republic)	RC-3	A-769	CAR PART 3 and Amendments Listed in TCDS No. A-769	AFC-K010	B 11/11/2010*	05/15/1999
17	S.O.C.A.T.A. – GROUPE AEROSPATIALE	Rallye Series MS894E	7A14	CAR PART 3 and Amendments Listed in TCDS No. 7A14	AFC-K010	B 11/11/2010*	10/03/2012
18	STOL AVIATION LLC (Interstate Engineering)	S-1A-65F, S-1A-85F, S-1A-90F	A-737	CAR PART 4 and Amendments Listed in TCDS No. A-737	AFC-K010	B 11/11/2010*	10/03/2012
19	SUPERIOR AIRCRAFT (Culver)	LFA	A-730	CAR PART 4a and Amendments Listed in TCDS No. A-730	AFC-K010	B 11/11/2010*	10/03/2012

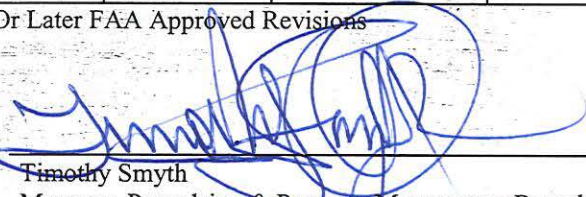
FAA APPROVED MODEL LIST (AML) SA00433NY
AIRWOLF FILTER CORP
FOR INSTALLING
REMOTE MOUNT OIL FILTER KIT

Issue Date: May 7, 1996

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AML AMENDMENT DATE
					NUMBER	REVISION NO. AND DATE	
20	SWIFT MUSEUM FOUNDATION, INC. (Globe)	GC-1A, GC-1B With Franklin engine installed	A-766	CAR PART 4a and Amendments Listed in TCDS No. A-766	AFC-K010	B 11/11/2010*	10/03/2012
21	TAYLORCRAFT INC.	BF, BFS, BF-60, BFS-60, BF-65, BFS-65, BF12-65, BFS12-65	A-699	CAR PART 4a and Amendments Listed in TCDS No. A-699	AFC-K010	B 11/11/2010*	10/03/2012
22	UNIVAIR AIRCRAFT CORPORATION (Stinson)	108; 108-1, 108-2, 108-3, 108-5	A-767	CAR PART 3 and Amendments Listed in TCDS No. A-767	AFC-K010	B 11/11/2010*	5/7/1996

* Or Later FAA Approved Revisions

FAA Approved: _____


 Timothy Smyth
 Manager, Propulsion & Program Management Branch
 Chicago Aircraft Certification Office

Date Amended: 05/07/96, 05/07/97, 05/15/99, 7/21/99,
 10/31/12

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: _____

Reg. Number: _____

**STC SA00024NY
STC SA00079NY
STC SA00433NY
STC SA01282NY
STC SA01406NY**

RECORD OF REVISIONS

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

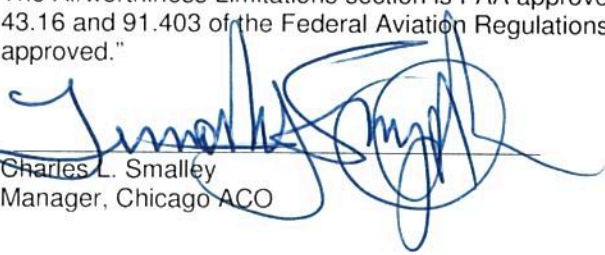
 Many aircraft engines were built with oil screens, or filters mounted on the engine in locations difficult to access. Oil screens are not filters and only prevent the large pieces from going through the engine. Oil filters trap small contaminants (dirt) preventing them from circulating through the engine. 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.

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 be 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."


for Charles L. Smalley
Manager, Chicago ACO

Date 10/29/2013

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.