

Oil Filter Kit AFC-K003

Applicability: Robinson Model R-22 with Lycoming
Engines O-320 & O-360

First Release 10/05/92

Amended 01/08/2000

<u>Index</u>	<u>Part Number</u>	<u>Parts List No. AFC-K003-PL</u> <u>Description</u>	<u>Quantity</u>
01.	LYC-10	Adapter - Engine, Full Flow	(1)
02.	61173	Adapter Base Gasket	(1)
03.	AN837-8D	Bulkhead Fitting, 45°	(2)
04.	AN6289-8D	Bulkhead Nut	(2)
05.	MS35769-11	Gasket, Oil Temperature Sensor	(1)
06.	MS35769-21	Gasket, Thermostatic Valve	(1)
07.	MS28773-08	Boss Gasket	(2)
08.	MS9387-08	"O" Ring	(2)
09.	AN4H-4A	Bolt, Drilled Head	(4)
10.	AN960-416	Flat Washers	(4)
11.	OFM-12	Oil Filter Mount Plate - R-22 - All Models	(1)
12.	MS20613-3C3	Solid Rivet, Stainless	(8)
13.	OFB-10	Oil Filter Base	(1)
14.	MS20822-8D	Fitting, 90°	(2)
15.	OFS-10	Oil Filter Stud	(1)
16a.	AFC-500	Oil Filter, or Equivalent [Champion CH48108]	(1)
16b.	AFC-600	Oil Filter, or Equivalent [Champion CH48109]	(1)
17.	F13000008-0266	Titeflex Teflon Hose w/ Fire Sleeving	(1)
18.	F13000008-0236	Titeflex Teflon Hose w/ Fire Sleeving	(1)
19.	MS20365-1032A	Locknut	(2)
20.	MS21919WDG-14	Adel Clamp	(3)
21.	MS21919DG-12	Adel Clamp	(1)
22.	MS21919DG-8	Adel Clamp	(1)
23.	AN3-4A	Bolt	(2)
25.	AN960-10	Flat Washer	(4)
26.	56707	Loctite® 567 Teflon Thread Sealant	(1)
26.	AFC-K003-II	Installation Instructions	(1)
27.	AFC-K003-MI	Instructions for Continued Airworthiness	(1)
28.	AFC-K003-PL	Parts List	(1)

Installation Instructions No. AFC-K003-II

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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 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. Per assembly drawing AFC-D-0002, install a new gasket (05) under the head of the oil temperature sensor and reinstall in the oil filter adapter (01). Turn the oil temp sensor until the sealing surfaces are in contact and then tighten an additional 135 degrees. Install a new gasket (06) under the head of the P/N 75944 Lycoming thermostatic valve, reinstall in the oil filter adapter (01), torque to 300 in/lbs and secure with .032 MS20995-C safety wire. Onto each bulkhead fitting (03), install (**in order**) 1 ea. bulkhead nut (04), boss gasket (07), and "O" Ring (08). **BE CAREFUL:** O-ring and boss gasket must seal in the smooth area between the threaded areas of the bulkhead fitting. Install each completed assembly into the oil filter adapter (01). Do not tighten fittings until after routing of hoses has been determined in step 07.
04. Per installation drawing AFC-D-0006 install gasket (02) on base of filter adapter (01) and reinstall onto the engine accessory case. Torque to specifications 96 in/lbs.
05. Inside the R-22 cockpit, remove the P/N A003-14 RH seat back assy. Using installation drawing AFC-D-0004 as a reference, (facing forward), locate area at top RH corner of bulkhead . Using the filter mount (11) as a drilling template, locate and drill mounting holes using a #40 drill. After installing rivets, locate and drill (4) filter base mounting holes using a letter "F" drill.
**** SEE WARNING (A) BELOW ****
06. Per installation drawing AFC-D-0003, install 2 ea. fittings (14) into filter base (13) and tighten. Mount to filter mount (11) per assembly drawing AFC-D-0003 using bolts (09), washers (10), and secure with .032 MS20995-C safety wire.
**** SEE WARNING (B) BELOW ****
07. Install hose assy (17) connecting the "**A**" port on the filter adapter to the "**A**" port on the filter base. Install hose assy (18) from the "**B**" port on the filter adapter to the "**B**" port on the filter base per installation drawing AFC-D-0005. Tighten bulkhead nuts (04) at this time and then tighten hose fittings to 270-350 in/ lbs.
08. Secure hoses per installation drawing AFC-D-0005 using clamps (20), (21), & 22), screws (23) & (24), washers (25), and nuts (19) provided.
09. Install oil filter (16), torque per instructions on oil filter and secure with .032 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) *******

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

******* WARNING (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.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Form AFC-K003-ICA Revised 10/01/00

11.	<p>Data: Relative to structural fasteners such as type, torque, and installation requirements if any.</p> <p>Comment: __N/A</p>
12.	<p>List of special tools: Special tools that are required, if any.</p> <p>Comment: __N/A</p>
13.	<p>For commuter category aircraft: The following additional information must be furnished, as applicable:</p> <ul style="list-style-type: none">A. Electrical LoadsB. Methods of balancing flight controls.C. Identification of primary and secondary structures>D. Special repair methods applicable to the airplane. <p>Comment: __N/A</p>
14.	<p>Recommended overhaul periods: Are required to be noted on the ICA when an overhaul period has been set by the manufacturer of a component, or equipment. If there is no overhaul period, the ICA should state for item 14: "No additional overhaul time limitations."</p> <p>Comment: __N/A</p>
15.	<p>Airworthiness Limitation Section: Include any "approved" airworthiness limitations identified by the manufacturer of FAA type Certificate Holding Office (e.g., An STC incorporated in a larger field approved major alteration may have an airworthiness limitation.) The FAA inspector should not establish, alter, or cancel airworthiness limitations without coordinating with the appropriate FAA type Certificate Holding Office. If there are no changes to the airworthiness limitations, the ICA should state for item 15: "No additional airworthiness limitations" or " Not Applicable."</p> <p>Comment: __N/A</p>
16.	<p>Revision: This section should include information on how to revise the ICA. For example, a letter will be submitted to the local FSDO with a copy of the revised FAA Form 337 and revised ICA. The FAA inspection accepts the change by signing Block 3 and including the following statement: "The attached revised/new Instructions for Continued Airworthiness (date_____) for the above aircraft or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness (date_____)." Once the revision has been accepted, a maintenance record entry will be made, identifying the revision, its location, date of the Form 337.</p> <p>Comment: __ A letter will be submitted to the local FSDO with a copy of the revised FAA Form 337 and revised ICA. The FAA inspector accepts the change by signing Block 3 and including the following statement: "The attached revised/new Instructions for Continued Airworthiness (date_____) for the above aircraft or component major alteration have been accepted by the FAA, superseding the Instructions for Continued Airworthiness (date_____)." Once the revision has been accepted, a maintenance record entry will be made, identifying the revision, its location, date of the Form 337.</p>

NOTE:

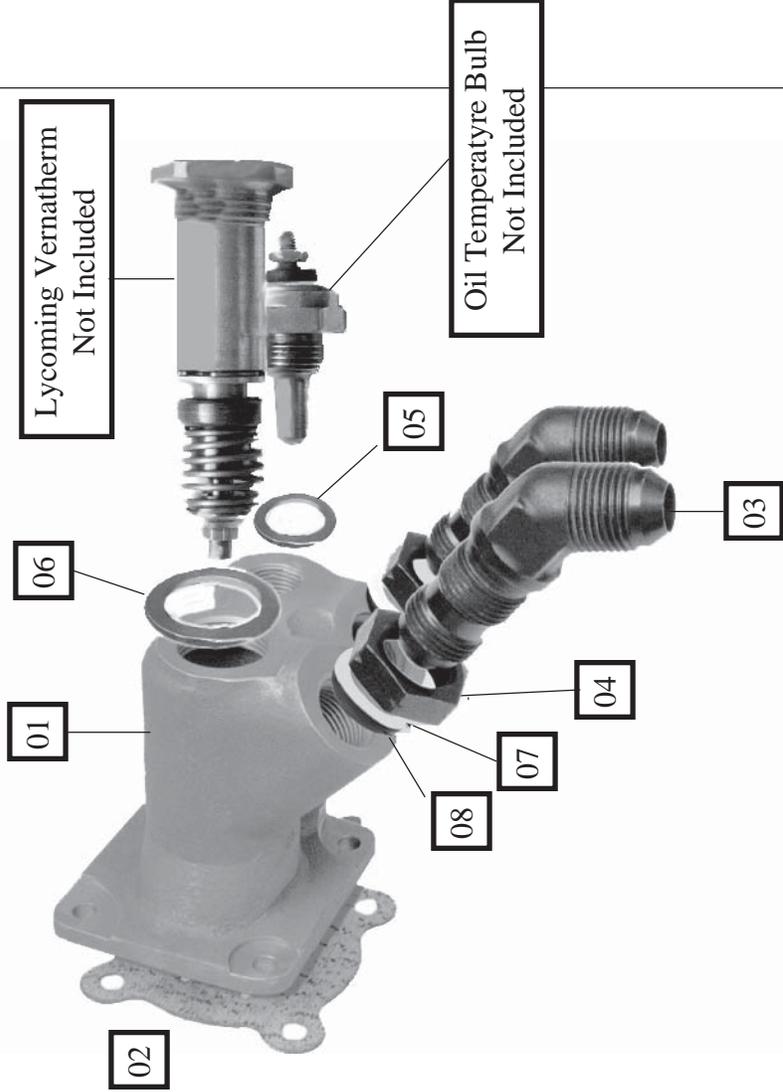
Implementation and Record Keeping: For major alterations performed in accordance with FAA Field Approval policy, the owner operator operating under part 91 is responsible for ensuring that the ICA is made part of the applicable section 92.409 inspection program for their aircraft. This is accomplished when a maintenance entry is made in the aircraft's maintenance record in accordance with section 43.9. This entry recorded the major alteration and identifies the original ICA location (e.g., Block 8 of FAA Form 337, dated 5/28/98) along with a statement that the ICA is now part of the aircraft's inspection/maintenance requirements.

For major alterations performed in accordance with field approval on air carrier aircraft, the air carrier operator is responsible for ensuring that the ICA is made part of the applicable inspection/maintenance program for their aircraft. If a procedure is not currently included in the operator's manual to incorporate ICA, this process will need to be appropriately addressed (i.e. the operator submits a revision to its maintenance program to the applicable certificate-holding district office (CHDO).

For aircraft inspected under an Approved Aircraft Inspection Program (AAIP), the operator will submit a change to the CHDO in accordance with section 135.419b).

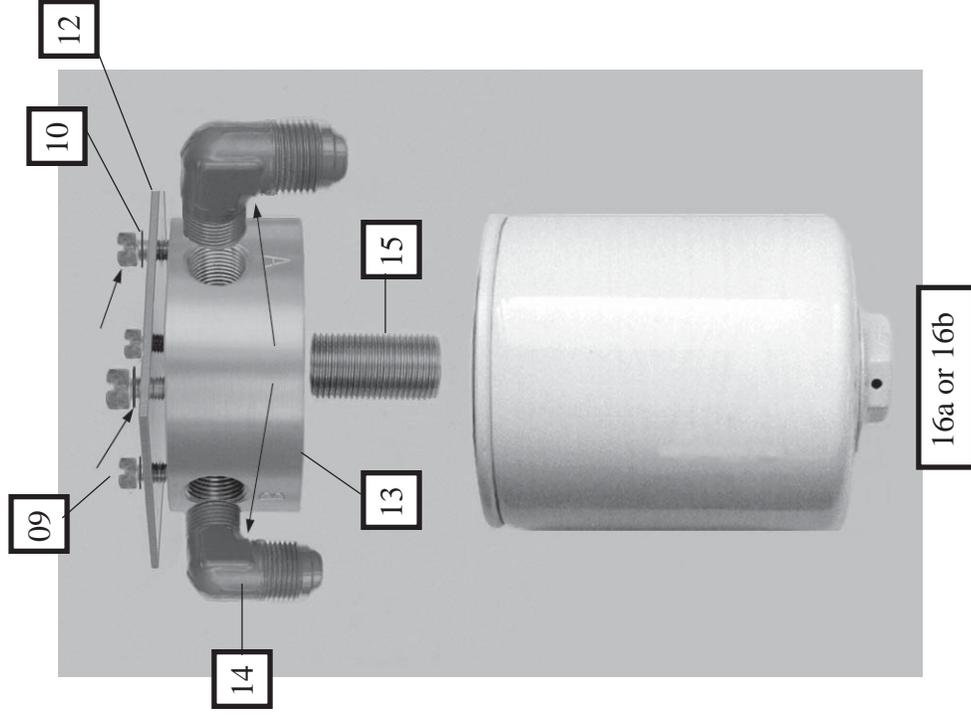
For air carrier aircraft inspected using an annual/100 hour inspection program, a reference to the new ICA will be made in the aircraft's maintenance record in accordance with section 43.9. This entry records the major alteration and identifies the original ICA location (e.g., ICA are located/attached to Block 8 of FAA Form 337, dated 5/28/98). In addition, the operator will request a revision to the operator's Operations Specifications, additional maintenance requirements, which incorporates the ICA into the inspection program.

ASSEMBLY DRAWING# AFC-D-0002



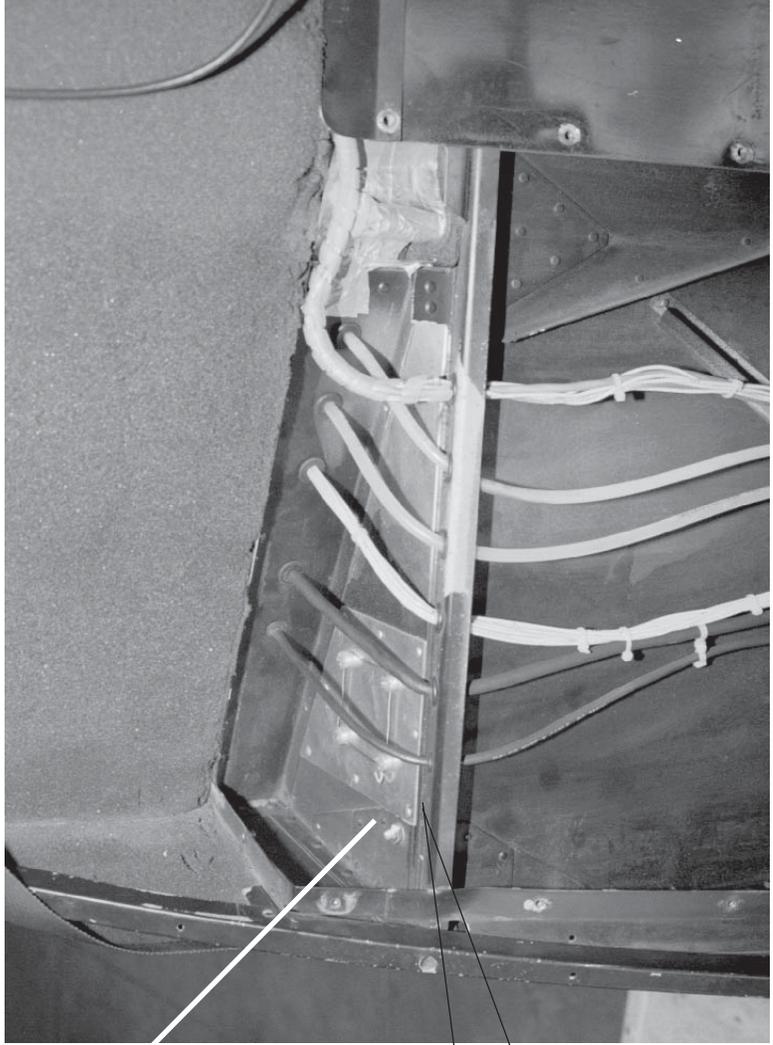
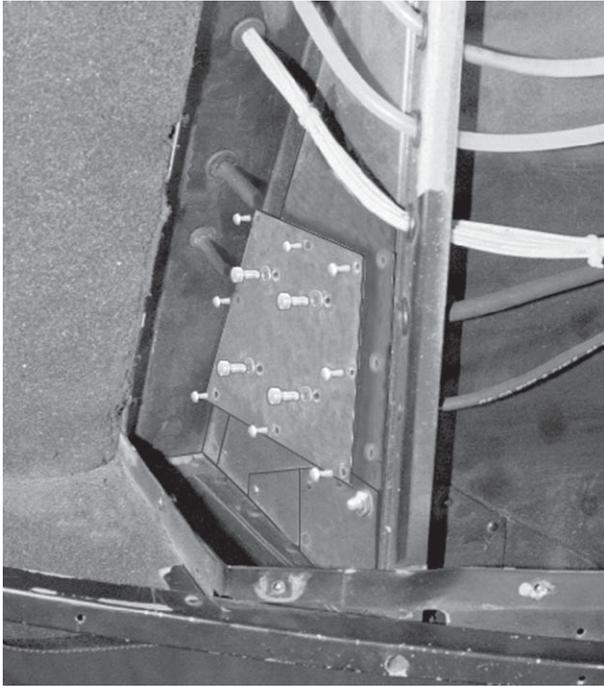
MATERIAL LIST			
Index	Part Number	Description	Qty
01.	LYC-10	Adapter-Engine, Full Flow	(1)
02.	61173	Oil Filter Gasket	(1)
03.	AN837-8D	Bulkhead Fitting, 45°	(2)
04.	AN6289-8D	Bulkhead Nut	(2)
05.	MS35769-11	Gasket, Oil Temperature Sensor	(1)
06.	MS35769-21	Gasket, Thermostatic Valve	(1)
07.	MS28773-08	Boss Gasket	(2)
08.	MS9387-08	"O" Ring	(2)

ASSEMBLY DRAWING# AFC-D-0003



MATERIAL LIST			
Index	Part Number	Description	Qty
09.	AN4H-4A	Bolt, Drilled Head	(4)
10.	AN960-416	Flat Washers	(4)
11.	OFM-12	Oil Filter Mount, R-22	(1)
13.	OFB-10	Oil Filter Base	(1)
14.	MS20822-8D	Fitting, 90°	(2)
15.	OFS-10	Oil Filter Stud	(1)
16a.	AFC-500	Oil Filter , [CH48108]	(1)
16b.	AFC-600	Oil Filter , [CH48109]	(1)

INSTALLATION DRAWING# AFC-D-0004



MATERIAL LIST

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Qty</u>
09.	AN4H-4A	Bolt, Drilled Head	(4)
10.	AN960-416	Flat Washers	(4)
11.	OFM-12	Oil Filter Mount, R-22	(1)
12.	MS20613-3C4	Solid Rivet, Stainless	(8)

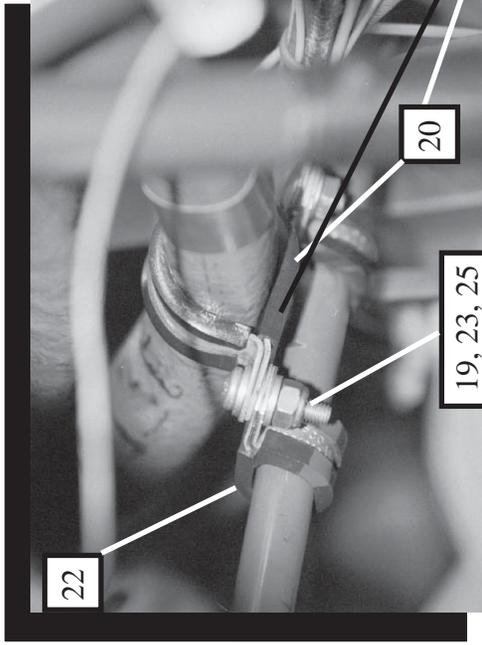
11

12

09

10

INSTALLATION DRAWING# AFC-D-0005



MATERIAL LIST	
<u>Index</u>	<u>Part Number</u>
17.	F1300008-0266
18.	F1300008-0236
19.	MS20365-1032
20.	MS21919WDG-14
21.	MS21919DG-12
22.	MS21919DG-8
23.	AN3-4A
25.	AN960-10

<u>Description</u>	<u>Qty.</u>
Hose Assy w/ Fire Sleeving	(1)
Hose Assy w/ Fire Sleeving	(1)
Locknut	(2)
Adel Clamp	(3)
Adel Clamp	(1)
Adel Clamp	(1)
Bolt	(2)
Flat Washer	(4)

INSTALLATION DRAWING # AFC-D-0006

