

## Service Bulletin

**Subject:**

Remote Oil Filter (Retrofit)

**Applicability:**

All GA8 serial numbers.

**Amendments:**

Nil (initial issue).

**Background:**

This Service Bulletin documents the retrofit installation of an Airwolf brand remote mounted oil filter. The installation is standard for all turbocharged variants of the GA8 Airvan and is offered as a retrofit option for the naturally aspirated variant of the GA8 Airvan.

**Compliance:**

For applicable aircraft this optional Service Bulletin may be incorporated at the owner's discretion.

**Weight and Balance:**

Negligible effect on weight and balance.

**Approval:**

The technical aspects of this Service Bulletin have been approved under a CASA Authorisation.

**Parts:**

Item	Part Number	Description	Qty
Kit Part Number SB-GA8-2009-55-1			
1	GA8-716047-11	Remote Oil Filter Bracket	1
1a	LYC-10	Engine Adapter	1
2	GA8-792011-131	Port 'A' Oil Line	1
2a	61173	Adapter Base Gasket	1
3	GA8-792011-133	Port 'B' Oil Line	1
4	CH48109-1	Oil Filter	1

Item	Part Number	Description	Qty
4a	AN837-8D	Elbow 45° Bulkhead Fitting	2
5	AN823-8D	Elbow 90°	1
6	AN822-8D	Elbow 45°	1
6a	AN6289-8D	Nut	2
7a	MS28773-08	Boss Gasket	2
8a	MS9387-08	O-Ring	2
9	MS35769-11	Oil Temperature Sensor Gasket	1
10	MS35769-21	Thermostatic Valve Gasket	1
11	AN525-1032R8	Screw	4
12	AN960-10L	Washer	4
13	MS21042-3	Nut	4
13a	OFB-10	Oil Filter Base	1
14	AN4H4A	Bolt	4
15	AN960-416	Washer	4
16	Loctite 567	PST Teflon Thread Sealant	A/R
17	MS20995C32	Safety Wire	A/R
25	OTA-527	Oil Temp Adapter	1

### Parts Availability:

Kits can be obtained directly from Gippsland Aeronautics.

Tel.: +61 03 5172 1200

Fax.: +61 03 5172 1201

Email: spares@gippsaero.com

### Labour:

Approximately 2.0 hours per aircraft should be allocated for completing the work detailed in this Service Bulletin.

### Warranty:

Not Applicable.

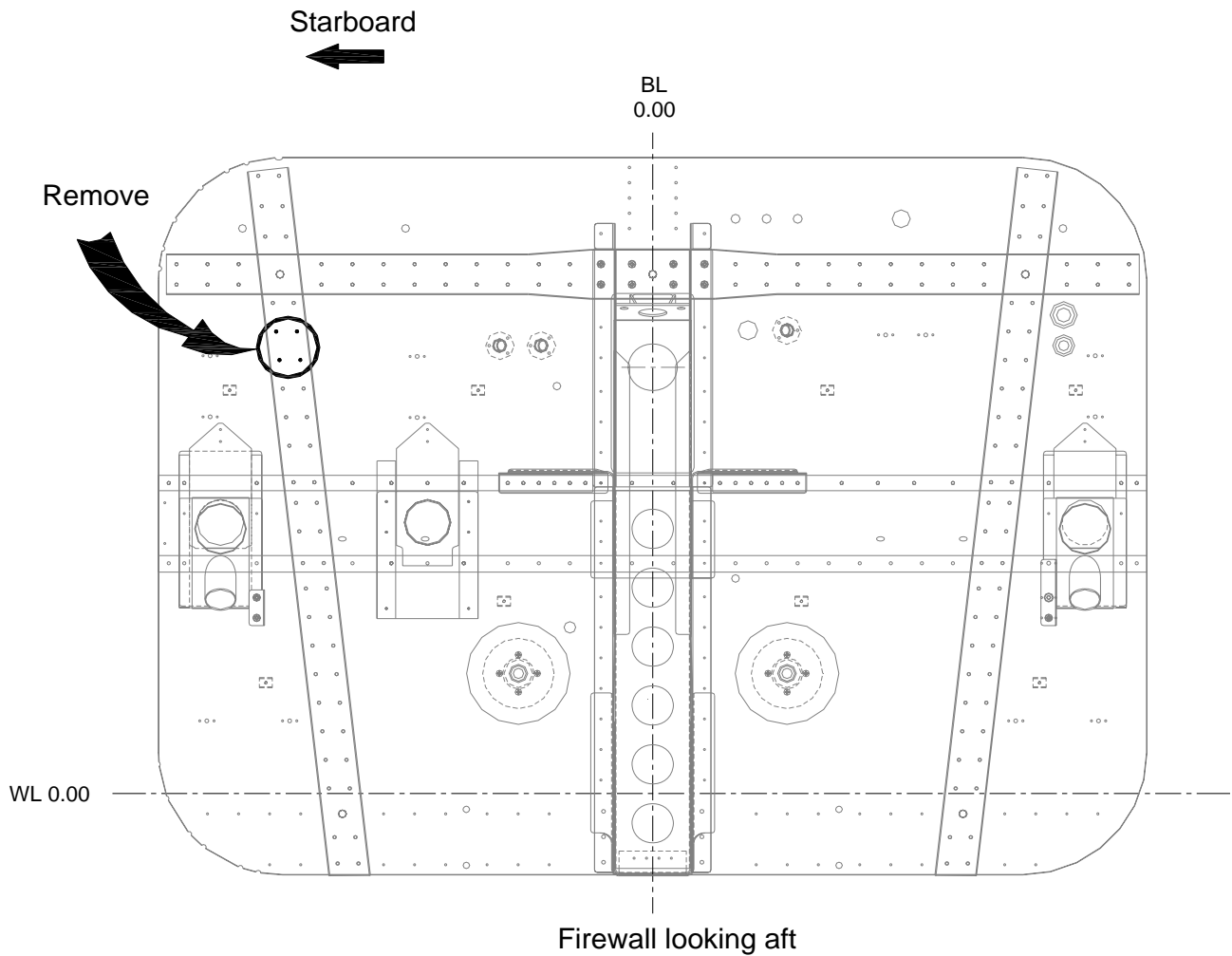
## Instructions:

### NOTE

*This Service Bulletin should be read in conjunction with AC.43-1B & 2A and Airwolf Filter Corp Installation Instructions AFC-K007-A-II.*

#### 1 Installation of oil filter mounting bracket

1.1 Remove 4 x rivets from firewall and drill  $\text{Ø}3/16''$  as shown in Figure 1.



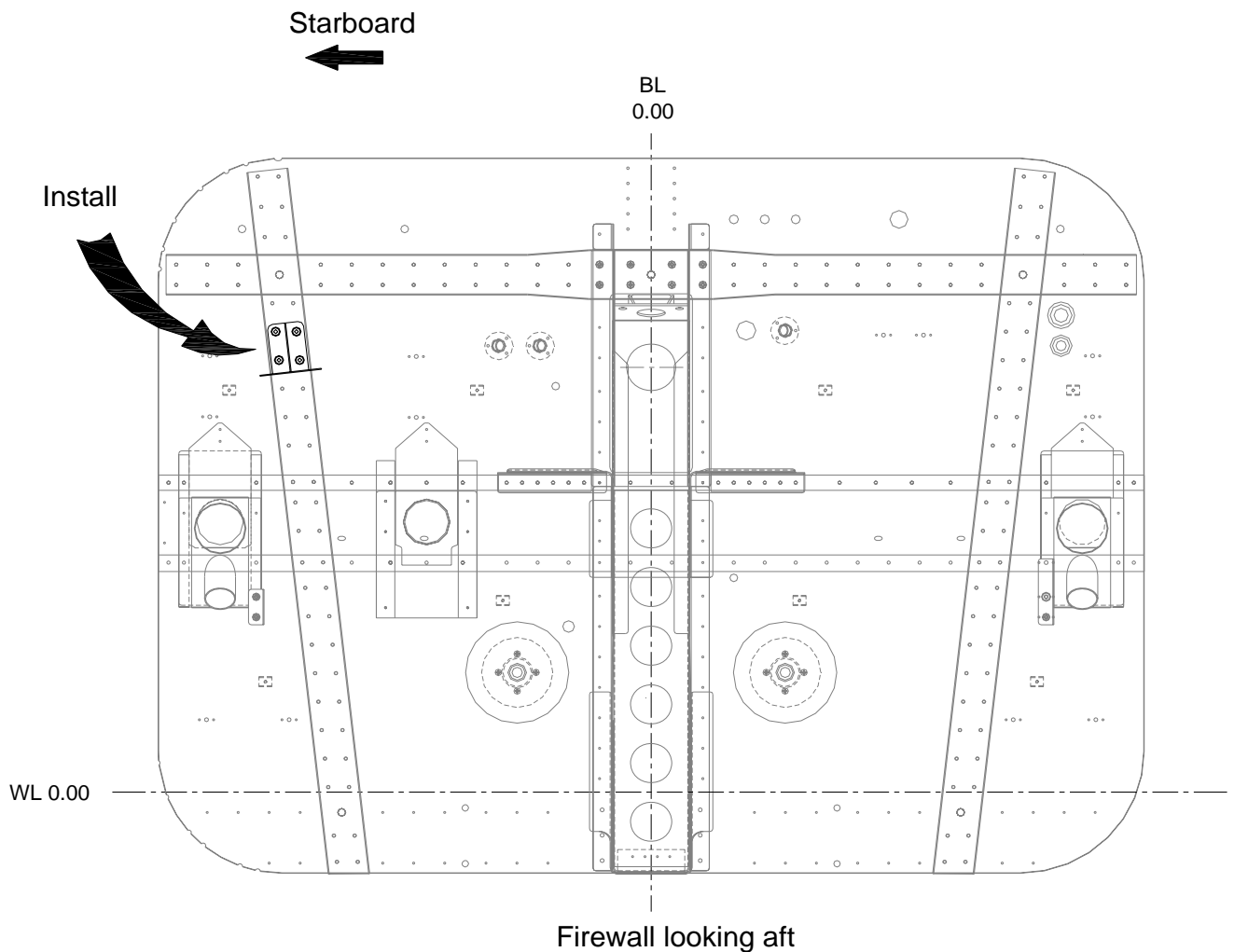
**Figure 1**

1.2 Install oil filter welded bracket (GA8-716047-11) as shown in Figure 2 using the following hardware:

AN525-1032R8 Screw x 4

AN960-10L Washer x 4

MS21042-3 Nut x 4



**Figure 2**

## **2 Installation of Oil Filter Base and Filter**

### **WARNING**

*To prevent galling of parts do not screw in any fittings to the oil filter base (OFB-10) without use of Loctite 567 thread sealant or equivalent.*

- 2.1 Fit 90° elbow (AN823-8D) into port 'A' and 45° elbow AN822-8D into port 'B' of oil filter base. (**Note warning above**).
- 2.2 Install oil filter base (OFB-10) to the oil filter welded bracket (GA8-716047-11) using the following hardware and lock wire as shown in Figure 3:
  - 4 x AN4H-4A Bolt
  - 4 x AN960-416 Washer
- 2.3 Apply a thin film of oil to the seal and install filter (CH48109-1) to filter base and torque to the manufactures recommendation. Lock wire as shown in Figure 3.



Figure 3

### 3 Installation of Engine Adapter

Install Engine Adapter as shown in Figure 4 in accordance with Airwolf Filter Corp. installation instruction AFC-K007-A-II using the 2 x 45° Bulkhead Fittings option.



Figure 4

#### **4 Hose installation**

- 4.1 Connect port 'A' on the oil filter base to port 'A' on the engine adapter (LYC-10) using hose GA8-792011-131.
- 4.2 Connect port 'B' on the oil filter base to port 'B' on the engine adapter (LYC-10) using hose GA8-792011-133.

#### **Documentation:**

Update aircraft log book to reflect incorporation of this Service Bulletin.

#### **Compliance Notice:**

Complete the Document Compliance Notice and return to Gippsland Aeronautics by mail, fax or email.

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:	AFC-K007
		Revision:	A
		Date:	10/01/02

- 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.



## DOCUMENT COMPLIANCE NOTICE



Document: Service Bulletin SB-GA8-2009-55

Issue 1

Aircraft Serial Number: GA8-\_\_\_\_\_

Service Bulletin SB-GA8-2009-55 Issue 1 has been incorporated in the above aircraft.

Date: \_\_\_\_\_

\_\_\_\_\_  
Signed

On behalf of (*company name*): \_\_\_\_\_

Please post fax or email this compliance notice to:

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