

FOR REFERENCE ONLY

Applicability: CESSNA
411, 411A

[Right Engine]

Drawing: AFC-W320
Revision: B
Date: 06/01/05

Airwolf Parts List No. AFC-W320-R

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	W-3003	AirSep Assy	(1)
02.	W-2040	Air Syphon Tee	(1)
03.	W-2018	Air-Tee	(1)
04.	Deleted		
05.	W-2011	Bracket	(1)
06.	W-2038	Tee	(1)
07.	W-2039	Brace	(1)
08.	Deleted		
09.	Deleted		
10.	MIL6000-1/4	Hose, 5/16" ID	(34")
11.	MIL6000-5/16	Hose, 5/16" ID	(36")
12.	MIL6000-3/4	Hose, 3/4" ID	(26")
13.	MIL6000-1/2	Hose, 1/2" ID	(6")
14.	MIL6000-5/8	Hose, 5/8" ID	(14")
15.	Deleted		
16.	MIL6000-1/2	Hose, 1/2" ID	(2")
17.	AE102-12	Firesleeving	(12")
18.	MM-4	Hose Clamp, 1/4"	(5)
19.	MM-5	Hose Clamp, 3/8"	(4)
20.	QS100M08H	Hose Clamp, 1/2"	(2)
21.	QS100M10H	Hose Clamp, 5/8"	(2)
22.	QS100M24H	Hose Clamp, 1-1/2"	(1)
23.	QS100M72H	Hose Clamp, 4-1/2"	(1)
24.	MS21919WDG-34	Adel Clamp, 2-1/8"	(2)
25.	AN526C-1032R10	Screw, #10 X 5/8"	(3)
26.	W-2100	"C" Channel	(10")
27.	AN960-10	Flat Washer, #10	(3)
28.	Deleted		
29.	Deleted		
30.	MS20365-1032A	Locknut, #10	(3)
31.	Deleted		
32.	Deleted		
33.	CAT-7	Duct, 1-3/4" ID	(12")
34.	AN816-5D	Straight Fitting, -5	(1)

FOR REFERENCE ONLY

Applicability: CESSNA [Left Engine]
411, 411A

Drawing: AFC-W320
Revision: B
Date: 06/01/05

Airwolf Parts List No. AFC-W320-L

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	W-3003	AirSep Assy	(1)
02.	W-2040	Air Syphon Tee	(1)
03.	W-2018	Air-Tee	(1)
04.	Deleted		
05.	W-2011	Bracket	(1)
06.	W-2038	Tee	(1)
07.	W-2039	Brace	(1)
08.	Deleted		
09.	Deleted		
10.	MIL6000-1/4	Hose, 5/16" ID	(34")
11.	MIL6000-5/16	Hose, 5/16" ID	(36")
12.	MIL6000-3/4	Hose, 3/4" ID	(26")
13.	Deleted		
14.	MIL6000-5/8	Hose, 5/8" ID	(14")
15.	MIL6000-1/2	Hose, 1/2" ID	(8")
16.	MIL6000-1/2	Hose, 1/2" ID	(2")
17.	AE102-12	Firesleeving	(12")
18.	MM-4	Hose Clamp, 1/4"	(5)
19.	MM-5	Hose Clamp, 3/8"	(4)
20.	QS100M08H	Hose Clamp, 1/2"	(2)
21.	QS100M10H	Hose Clamp, 5/8"	(2)
22.	QS100M24H	Hose Clamp, 1-1/2"	(1)
23.	QS100M72H	Hose Clamp, 4-1/2"	(1)
24.	MS21919WDG-34	Adel Clamp, 2-1/8"	(2)
25.	AN526C-1032R10	Screw, #10 X 5/8"	(3)
26.	W-2100	"C" Channel	(10")
27.	AN960-10	Flat Washer, #10	(3)
28.	Deleted		
29.	Deleted		
30.	MS20365-1032A	Locknut, #10	(3)
31.	Deleted		
32.	Deleted		
33.	CAT-7	Duct, 1-3/4" ID	(12")
34.	AN816-5D	Straight Fitting, -5	(1)

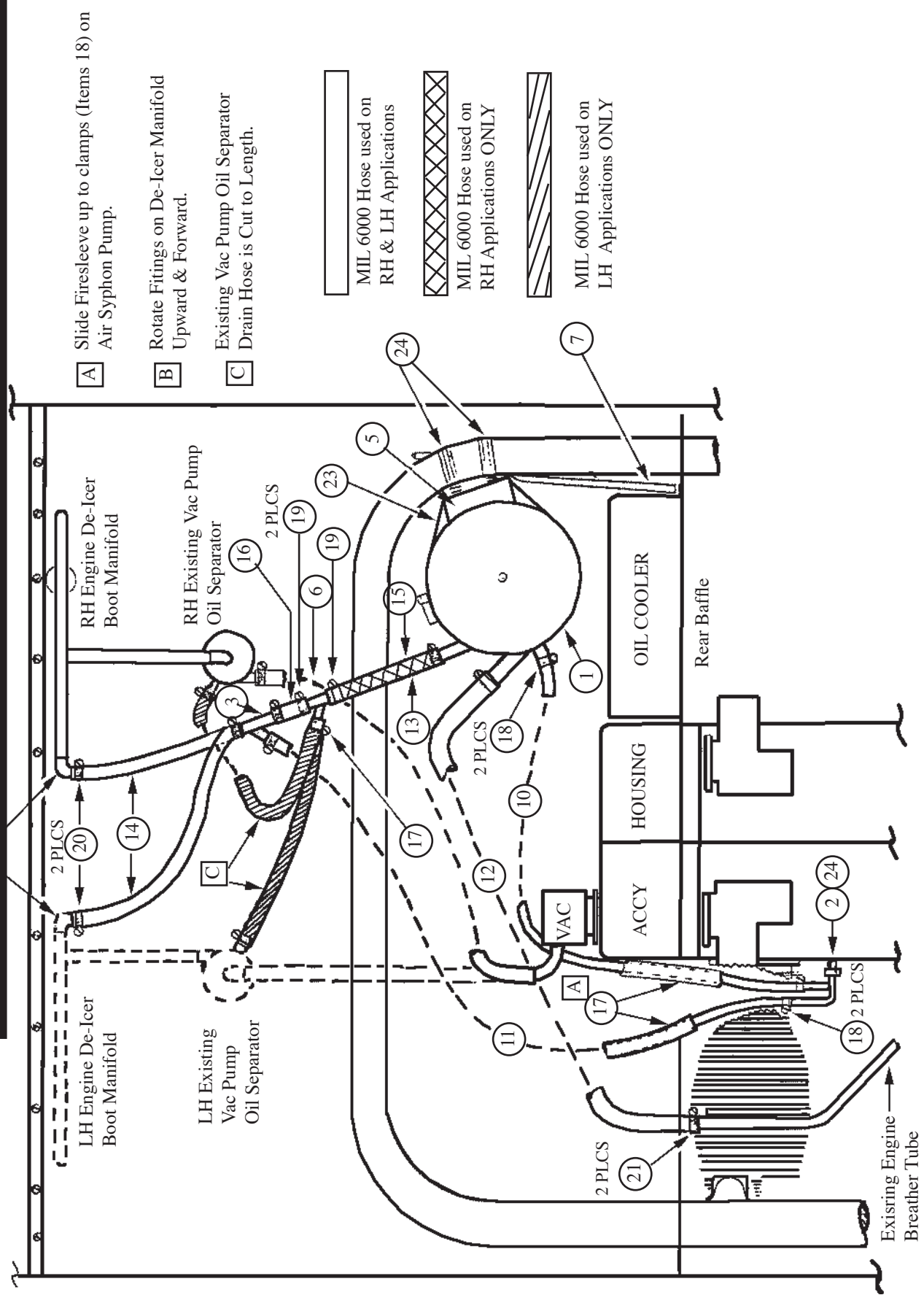
*Note A: Some hoses or wires may have to be rerouted so the air/oil separator will fit into position.
Reference and material per AC 43.13-1B & 2A.*

WARNING: ALL HOSES SHALL BE LOCATED AT LEAST 4.0" FROM ANY HEAT SOURCE LIKELY TO CAUSE VAPORIZATION OF THE OIL.

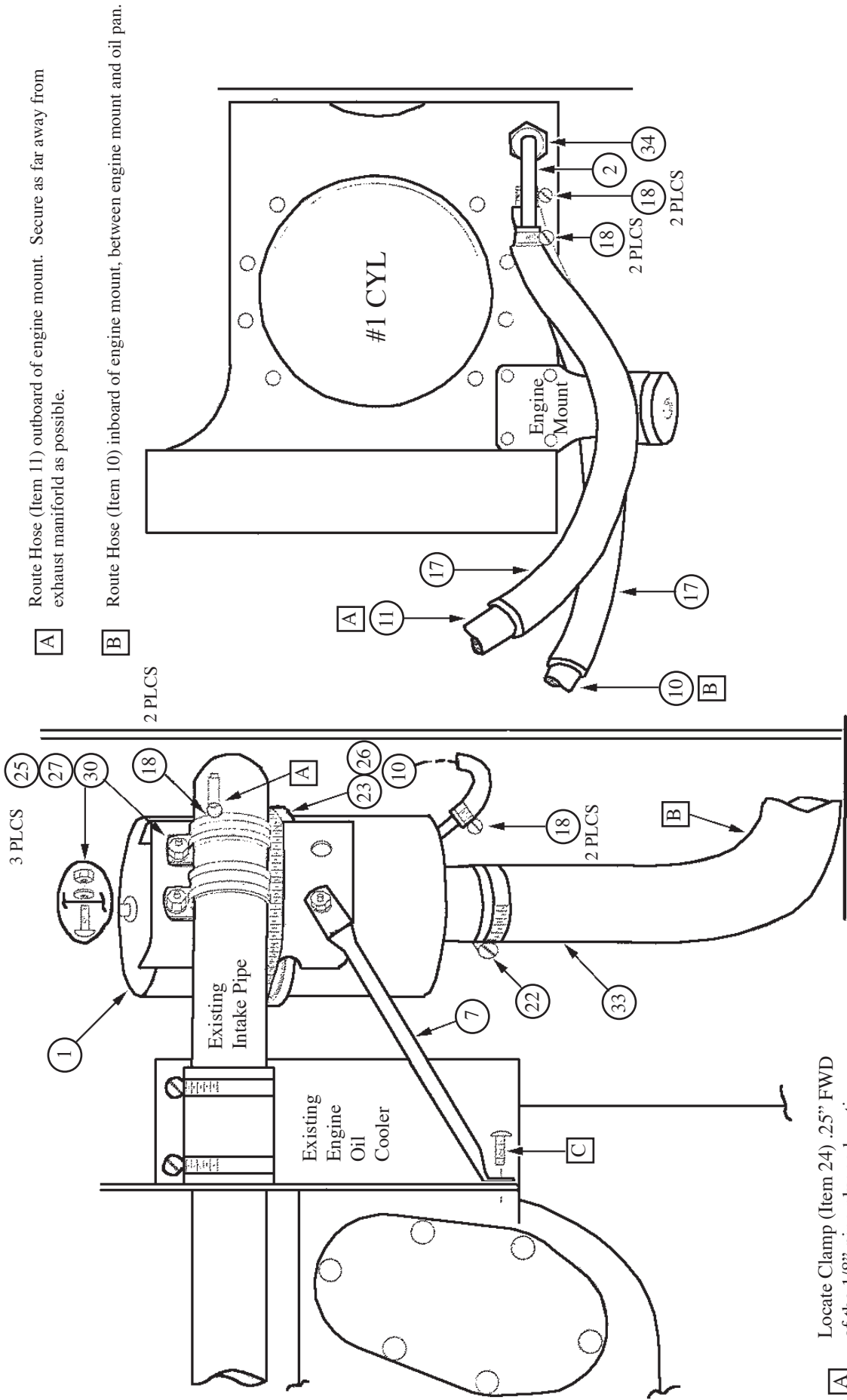
01. Remove the existing engine breather hose and oil separator from the breather tube, aft of the rear baffle to the overboard tube on the lower nacelle.
02. Follow the vacuum pump outlet line to the de-icer boot pressure control manifold. On the inboard side of the manifold is an overboard hose extending down to the lower nacelle. Remove this hose and rotate the 90 degree fitting upward and forward. Partial removal of the pressure manifold from the firewall may be necessary.
03. Install the Universal Bracket (Item 5) using (2) each of items 24, 25, 27, & 30. Locate the bracket on the left rear intake pipe, 025" forward of the plugged galley into the intake manifold. Install with the toes of the clamps inward and upward, with the notches in the flanged edges of the bracket downward.
04. Install the brace (Item 7) between the lower left hole in the Universal Bracket and the lower outboard screw in the left rear baffle. Use (1) each of item 25, 27, & 30 at the bracket, and existing hardware at the baffle.
05. Install the AirSep (Item 1) to the Universal Bracket and secure with the clamp (Item 23) just above the flanged split line of the AirSep.
06. Remove the 1/8" pipe plug (or fitting, as applicable) in the lower right engine case, below and between cylinders #1 & #3. and replace it with the fitting (Item 34).
07. Install the hose (Item 12) between the 3/4" engine breather tube and the 3/4" inlet to the AirSep. Secure it at the ends with (2) each of item 21.
08. Connect the hose (Item 13 or 15, as applicable) to the 1/2" inlet to the AirSep. Secure it with (1) each of item 19.
09. Install the Air-Tee (Item 6) (the one with the 1/4" dia. diagonal leg) in the remaining end of the hose mentioned above. Clamp it with (1) each of item 19.

Note: Observe proper direction of Air-Tee (see drawing).

10. Install the hose (Item 16) to the remaining end of the Tee. Clamp it with item 19.
11. Install the Air Tee (Item 3) (the one with the 5/16" dia. diagonal leg) in the remaining end of the hose (Item 16, above). Secure it with item 19. **Note:** Observe proper direction of Air Tee.
12. Install the hose (Item 14) between the remaining 1/2" end of the Air-Tee and the 5/8" outlet from the de-icer boot pressure manifold. Clamp both ends with item 20.
13. Slide (2) lengths of firesleeve (Item 17) over the hoses (Items 10 & 11).
14. Connect the hose (Item 10) to the short 1/4" inlet to the Air Syphon Pump (Item 2). Clamp it with (1) each of item 18.
15. Connect the hose (Item 11) to the 5/16" inlet to the Air Syphon Pump. Clamp it with (1) each of item 18.
16. Slide the firesleeve on the hoses (Items 10 & 11) forward to the clamps.
17. Install the Air Siphon Pump to the fitting installed in step 6 above. Route the 1/4" hose and fireshield behind the engine mount leg. Route the 5/16" hose and fireshield around the engine mount leg to the rear. (see drawing) Tie the hoses as far away from the exhaust stacks as possible.
18. Connect the remaining end of the hose (Item 10) to the 1/4" drain line of the AirSep. Clamp it with item 18.
19. Connect the remaining end of the hose (Item 11) to the 5/16" diagonal leg of the Air-Tee (Item 3). Clamp it with item 18.
20. Connect the existing vacuum pump oil separator drain line to the 1/4" diagonal tube of the Air-Tee (Item 6). Cut the line to length as necessary and clamp it with item 18.
21. Install the duct (Item 33) to the 1-3/4" outlet of the AirSep. Secure it at the top with (1) each of item 22. Route the lower end down and aft, making sure it does not discharge on any exhaust system components. Secure the lower end using good shop practices and techniques.
22. Determine weight & balance, initiate Form 337, and update the equipment list.



WARNING: ALL HOSES SHALL BE LOCATED AT LEAST 4.0" FROM ANY HEAT SOURCE LIKELY TO CAUSE VAPORIZATION OF THE OIL.



A Route Hose (Item 11) outboard of engine mount. Secure as far away from exhaust manifold as possible.

B Route Hose (Item 10) inboard of engine mount, between engine mount and oil pan.

A Locate Clamp (Item 24) .25" FWD of the 1/8" pipe plugged casting.

B Route & secure the lower end of the duct (Item 33) using good shop practices

C Existing #10 screw

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