

FOR REFERENCE ONLY

Applicability: CESSNA
Cardinal
177, 177RG

Drawing: AFC-W322
Revision: B
Date: 06/01/05

AirwolfParts List No. AFC-W322

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	W-3003	AirSep Assy	(1)
02.	W-2046	Air Syphon Pump	(1)
03.	W-2018-1	Air-Tee, 5/8"	(1)
04.	Deleted		
05.	W-2011	Bracket	(1)
06.	W-2034	Tube	(1)
07.	Deleted		
08.	Deleted		
09.	Deleted		
10.	MIL6000-1/4	Hose, 1/4" ID	(18")
11.	MIL6000-5/16	Hose, 5/16" ID	(20")
12.	MIL6000-3/4	Hose, 3/4" ID	(11")
13.	MIL6000-5/8	Hose, 5/8" ID	(8")
14.	MIL6000-5/8	Hose, 5/8" ID	(3")
15.	MIL6000-3/4	Hose, 3/4" ID	(3")
16.	W-2100	"C" Channel	(10")
17.	SCAT-7	Duct, 1-3/4" ID	(24")
18.	MM-4	Hose Clamp, 1/4"	(4)
19.	MM-5	Hose Clamp, 3/8"	(6)
20.	QS100M10H	Hose Clamp, 5/8"	(4)
20.	QS100M12H	Hose Clamp, 3/4"	(2)
21.	QS100M24H	Hose Clamp, 1-1/2"	(1)
22.	QS100M72H	Hose Clamp, 4-1/2"	(1)
23.	MS21919WDG-30	Adel Clamp, 1-7/8"	(1)
24.	MS21919WDG-10	Adel Clamp, 5/8"	(1)
25.	MS27039C-0810	Screw, #8 X 5/8" Long	(4)
26.	AN526C-1032R10	Screw, #10 X 5/8" Long	(5)
27.	AN960-10	Flat Washer, #10	(4)
28.	A10K-80	Rivnut, #10-32 X 7/16"	(4)
29.	MS35338-43	Lock Washer, #10	(4)
30.	MS20365-1032A	Locknut, #10	(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 all engine breather and vacuum pump discharge components from the engine and vacuum pump down to the lower cowl or cowl flap, as applicable. If necessary, the vacuum pump discharge tube may be cut and pointed aft toward the 5 o'clock position.
02. Locate a point on the firewall 1.5" up from and 3.1" inboard of the right control column attach point center. Drill a #11 hole at that point. FIG. 2.
03. Install a rivnut (Item 28) in the hole located about FIGs 2 & 3.
04. Install the Universal Bracket (Item 5) to the rivnut installed above, using (1) each of items 25, 27, 29 in the lower inboard hole FIG. 3.
05. Match drill the remaining (3) holes from the universal bracket to the firewall using a #11 drill bit. FIG. 2.
06. Rotate the bracket and install the remaining (3) each of item 28. FIG. 3.
07. Slide the clamp (Item 22) over the universal bracket, reposition it, and install the remaining (3) each of items 25, 27, & 29. FIG. 3.
08. Install the AirSep (Item 1) to the universal bracket and secure it with item 22.

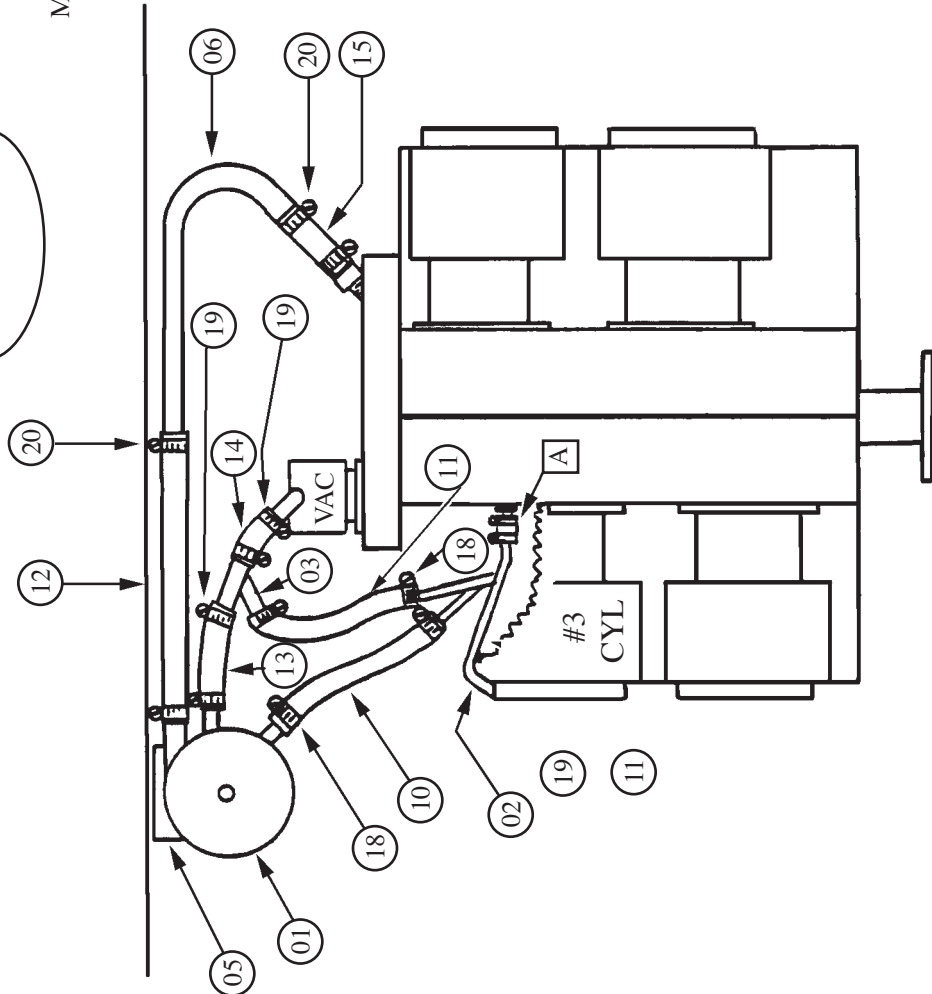
Caution: Do Not over tighten the clamp. FIG. 3.

09. Install the hose (Item 15) between the engine breather and the short end of the tube (Item 6). Clamp it with (2) each of item 20. FIG. 1.
10. Install the hose (Item 12) between the tube (Item 6) and the 3/4" inlet to the AirSep. Clamp it with (2) each of item 20. FIG. 1.
11. Install the hose (Item 14) between the vacuum pump discharge fitting and the Air Tee (Item 3). Clamp it with (2) each of item 19. Observe proper direction of the Air-Tee. FIG 1, 3.
12. Install the hose (Item 13) between the Air-Tee and the 1/2" inlet to the AirSep. Clamp it with (2) each of item 19. FIG. 1, 3.
13. Remove the #3 cylinder rocker box drain tube and replace with new P/N W-2046.
14. Install the Air Syphon Pump (Item 2) to the existing hose and clamp assembly. FIG. 1.
15. Install the hose (Item 16) between the Air Siphon Pump and the modified drain tube. Secure it with (2) each of item 19.
16. Secure the drain tube to the existing fitting in the rocker box.
17. Install the hose (Item 11) between the diagonal tube of the Air Tee and the 5/16" inlet to the Air Siphon Pump. Clamp it with (2) each of item 18. FIG. 2, 3.
18. Install the hose (Item 10) between the AirSep drain line and the 1/4" diagonal inlet to the Air Siphon Pump, Clamp it with 2 each of item 18. FIG. 2, 3.
19. Install the duct (Item 17) to the 1-3/4" outlet of the AirSep. Clamp it with (1) each of item 21. FIG. 3.
20. Secure the lower end of the duct to the engine mount tube using (1) each of items 23, 24, 26, & 30.

Note B: The duct must not extend nearer than 6" to the bottom of the cowling.

21. Determine weight & balance, initiate Form 337, and update the equipment list.

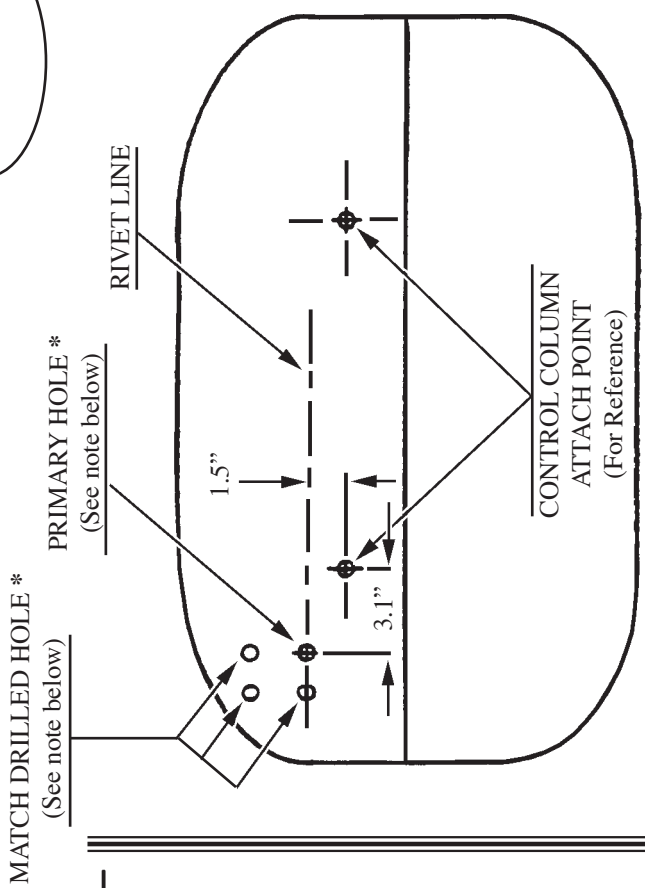
FIGURE 1



A EXISTING HOSE & CLAMP ASSY.

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

FIGURE 2



* Drill primary hole at location specified.
Match drill remaining 3 holes through the universal bracket (Item 5).

