

FOR REFERENCE ONLY

Applicability: BEECHCRAFT Bonanza S35, V35, V35A 36, A36 F33A F33C	[VACUUM GYRO SYSTEMS ONLY] [S/N D-7310 -> D-9068] [S/N E-1 -> E-686] [S/N CE-290 -> CE-602] [S/N CJ-26 & After]	Drawing: AFC-W301 Revision: B Date: 06/01/05
---	---	--

Airwolf Parts List No. AFC-W301-A

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	W-3000	AirSep Assy, 3/4" Breather, 5/8" Vacuum	(1)
02.	W-2018-1	Air-Tee	(1)
03.	W-2008	Air Syphon Pump	(1)
04.	AN816-5D	Fitting, Straight -5	(1)
05.	W-2021	Doubler	(1)
06.	W-2011	Bracket	(1)
07.	AN526C-1032R10	Screw, #10 X 5/8" Long	(6)
08.	MS20365-1032A	Locknut, #10	(6)
09.	AN960-10	Flat Washer, #10	(6)
10.	MIL6000-1/4	Hose, 1/4" ID	(12")
11.	MIL6000-5/16	Hose, 5/16" ID	(22")
12.	MIL6000-5/8	Hose, 5/8" ID	(16")
13.	MIL6000-3/4	Hose, 3/4" ID	(8")
14.	MM-4	Hose Clamp, 1/4"	(2)
15.	MM-5	Hose Clamp, 5/16"	(2)
16.	QS100M10H	Hose Clamp, 5/8"	(4)
17.	QS100M12H	Hose Clamp, 3/4"	(2)
18.	QS100M24H	Hose Clamp, 1-1/2"	(1)
19.	QS100M72H	Hose Clamp, 4-1/2"	(1)
20.	W-2100	"C" Channel	(10")
21.	MS21919WDG-30	Adel Clamp, 1-7/8"	(1)
22.	CAT-7	Duct, 1-3/4" ID	(28")

FOR REFERENCE ONLY

Applicability:	BEECHCRAFT	[PRESSURE GYRO SYSTEMS ONLY]	Drawing: AFC-W301
	Bonanza		Revision: B
	S35, V35, V35A	[S/N D-7310 -> D-9068]	Date: 06/01/05
	36, A36	[S/N E-1 -> E-686]	
	F33A	[S/N CE-290 -> CE-602]	
	F33C	[S/N CJ-26 & After]	

Airwolf Parts List No. AFC-W301-B

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	W-3019	AirSep Assy	(1)
02.	W-2022	Air-Tee	(1)
03.	W-2008	Air Syphon Pump	(1)
04.	AN816-5D	Fitting, Straight -5	(1)
05.	W-2021	Doubler	(1)
06.	W-2011	Bracket	(1)
07.	AN526C-1032R10	Screw, #10 X 5/8" Long	(6)
08.	MS20365-1032A	Locknut, #10	(6)
09.	AN960-10	Flat Washer, #10	(6)
10.	MIL6000-1/4	Hose, 1/4" ID	(12")
11.	MIL6000-5/16	Hose, 5/16" ID	(42")
12.	MIL6000-1/2	Hose, 1/2" ID	(11")
13.	MIL6000-3/4	Hose, 3/4" ID	(8")
14.	MM-4	Hose Clamp, 1/4"	(2)
15.	MM-5	Hose Clamp, 5/16"	(2)
16.	QS100M08H	Hose Clamp, 1/2"	(4)
17.	QS100M12H	Hose Clamp, 3/4"	(2)
18.	QS100M24H	Hose Clamp, 1-1/2"	(1)
19.	QS100M72H	Hose Clamp, 4-1/2"	(1)
20.	W-2100	"C" Channel	(10")
21.	MS21919WDG-30	Adel Clamp, 1-7/8"	(1)
22.	CAT-7	Duct, 1-3/4" ID	(28")

FOR REFERENCE ONLY

Applicability: BEECHCRAFT Bonanza S35, V35, V35A 36, A36 F33A F33C	[WITH IO-550 Engine Conversion] [S/N D-7310 -> D-9068] [S/N E-1 -> E-686] [S/N CE-290 -> CE-602] [S/N CJ-26 & After]	Drawing: AFC-W301 Revision: B Date: 06/01/05
---	--	--

Airwolf Parts List No. AFC-W301-C

<u>Index</u>	<u>Part Number</u>	<u>Description</u>	<u>Quantity</u>
01.	W-3000	AirSep Assy, 3/4" Breather, 1/2" Vacuum	(1)
02.	W-2154-4	Pushrod Shroud Tube, 5/16" Inlet [Optional]	(1)
03.	630286	Pushrod Shroud Tube Seal, Outer [Used with W-2154-4 Tube]	(1)
04.	534610	Pushrod Shroud Tube Seal, Inner [Used with W-2154-4 Tube]	(1)
05.	W-2014	AirSyphon Pump	(1)
06.	W-2018-1	Air Tee	(1)
07.	W-2011	Bracket	(1)
08.	W-2150	Doubler	(1)
09.	AN525-10R10	Screw, #10 X 5/8" Long	(5)
10.	AN960-10	Flat Washer, #10	(5)
11.	MS20365-1032A	Locknut, #10	(5)
12.	MIL6000-5/16	Hose, 5/16" ID	(18")
13.	MIL6000-5/8	Hose, 5/8" ID	(12")
14.	MIL6000-3/4	Hose, 3/4" ID	(12")
15.	MM-5	Hose Clamp, 5/16"	(4)
16.	QS100M10H	Hose Clamp, 5/8"	(2)
17.	QS100M12H	Hose Clamp, 3/4"	(2)
18.	QS100M24H	Hose Clamp, 1-1/2"	(1)
19.	QS100M72H	Hose Clamp, 4-1/2"	(1)
20.	W-2100	"C" Channel	(10")
21.	655528	Rocker Cover Gasket	(1)
22.	MS21919WDG-30	Adel Clamp, 1-7/8"	(1)
23.	SCAT-7	Duct, 1-3/4" ID	(28")

Applicability:	BEECHCRAFT Bonanza S35, V35, V35A 36, A36 F33A F33C	[VACUUM GYRO SYSTEMS ONLY] [S/N D-7310 -> D-9068] [S/N E-1 -> E-686] [S/N CE-290 -> CE-602] [S/N CJ-26 & After]	Drawing: AFC-W301 Revision: B Date: 06/01/05
----------------	--	---	--

*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 air/oil separator, lines and attaching parts.
02. Remove the existing breather tube assy from it's attaching point on the oil filler neck to the lower cowl flap area. Retain the breather tube and cut off the upper end as shown on sheet 3. Discard the lower section of the tube after cutting.
03. Remove the (6) attaching screws on the left side of the oil cooler.
04. Install the W-2021 doubler between the oil cooler flange and the rear engine baffle. Align the doubler and duplicate the (6) holes in the oil cooler flange, through the doubler and reinstall the (6) screws.
05. Duplicate the (4) holes that are already in the W-2021 doubler through the rear engine baffle.
06. Secure the W-2021 doubler to the rear engine baffle in the upper and lower left corners, by using (1) each of the #10 Screws, Washers and Locknuts in each corner.
07. Secure the W-2011 bracket to the doubler and the rear engine baffle using (1) each of the #10 Screws, Washers in each of the upper holes.
08. Duplicate the lower holes in the W-2011 bracket through the doubler , position the 4-1/2" clamp between the W-2011 bracket and the doubler and secure the clamp and bracket to the doubler using (1) each of the the #10 Screws, Washers and Locknuts.
09. Duplicate the 1.0" elongated hole that is already in the W-2021 doubler through the rear engine baffle, using the doubler as a guide.
10. Install one end of the 1/2" hose over the outlet fitting of the vacuum pump and secure it in place using a 1/2" clamp.
11. Install the other end of the 1/2" hose over the end of the Air-Tee and secure using a 1/2" clamp.
Note: Make sure arrow on Air-Tee points towards AirSep.
12. Connect one end of the 1/2" hose to the AirSep and the other end to the 1/2" port of the Air-Tee. Secure both ends of the 1/2" hose using 1/2" clamps.
13. Position the AirSep on the W-2011 bracket. Secure the AirSep using a 4-1/2" clamp on the mounting bracket. Caution: Do not over torque the clamp.
14. Connect the 5/16" hose to the 5/16" port on the Air-Tee and clamp in place using 5/16" clamps. Connect the other end of the 5/16" hose to 5/16" branch of the Air Siphon Pump.
15. Connect the 1/4" hose to the 1/4" drain fitting on the bottom of the AirSep, and the other end to the 1/4" branch on the Air Syphon Pump. Secure each end of the hose with 5/16" hose clamps
16. Remove the existing air oil separator drain fitting in the crankcase and install the AN816-5D fitting in its place. Attach the Air Siphon Pump to the fitting). **NOTE:** On -V dry and -P systems, the plug below the #2 Cyl. must be removed and the fitting (Item 7) installed in its place.
17. Connect the 1-3/4" duct to the large outlet tube of the AirSep, and secure it using a 1-3/4" clamp
18. Connect the lower end of the 1-3/4" duct to the keel structure, at the same point where the old breather tube was attached. Attach using 1-3/4" clamp and the original hardware.
NOTE: The overboard duct (Item 18) should not extend into the air stream or in no case below the lower engine cowl former.
19. Install the 3/4" hose on the engine breather outlet tube and secure in place using the existing clamp.
20. Connect the 3/4" hose to the 3/4" inlet the AirSep inlet tube and secure with 3/4" clamp.
21. Seal the area between the elongated hole and the AirSep inlet tube with a non-flammable, high temp. sealer.
22. Plug the existing breather tube hole in the rear engine baffle.
23. Determine weight & balance, initiate Form 337, and update the equipment list.

Applicability:

BEECHCRAFT
Bonanza
S35, V35, V35A
36, A36
F33A
F33C

[PRESSURE GYRO SYSTEMS ONLY]

[S/N D-7310 -> D-9068]
[S/N E-1 -> E-686]
[S/N CE-290 -> CE-602]
[S/N CJ-26 & After]

Drawing: AFC-W301**Revision: B****Date: 06/01/05**

*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 air/oil separator, lines and attaching parts.
02. Remove the existing breather tube assy from it's attaching point on the oil filler neck to the lower cowl flap area. Retain the breather tube and cut off the upper end. Discard the lower section of the tube after cutting.
03. Remove the (6) attaching screws on the left side of the oil cooler.
04. Install the W-2021 doubler between the oil cooler flange and the rear engine baffle. Align the doubler and duplicate the (6) holes in the oil cooler flange, through the doubler and reinstall the (6) screws.
05. Duplicate the (4) holes that are already in the W-2021 doubler through the rear engine baffle.
06. Secure the W-2021 doubler to the rear engine baffle in the upper and lower left corners, by using (1) each of the #10 Screws, Washers & Locknuts.
07. Secure the W-2011 bracket to the doubler and the rear engine baffle using the #10 Screws, Washers & Locknuts.
08. Duplicate the lower holes in the W-2011 bracket through the W-2011 doubler. Position the 4-1/2" clamp between the W-2011 bracket and the W-2021 doubler. Secure the 4-1/2" clamp and W-2011 bracket to the W-2021 doubler using the #10 Screws, Washers & Locknuts.
09. Duplicate the 1.0" elongated hole that is already in the W-2021 doubler through the rear engine baffle, using the doubler as a guide.
10. Attach a 1/2" piece of hose to the 1/2" inlet on the AirSep and secure with 1/2" clamp. Drill a 3/4" hole into the rear engine baffle and route the a short peice of the 1/2" hose into the baffle to gain high temp cylinder air.
11. Cut the existing 35-329012-17 hose in the existing pressure manifold as shown on.
12. Install the Air-Tee in between the (2) cut ends of the 35-329012-17 hose and secure both ends using 1/2" clamps.
13. Complete Steps 15 and 16.
14. Using the 5/16" hose, connect the 5/16" branch of the Air-Tee to the 5/16" branch of the AirSyphon Pump and secure with 5/16" clamps.
15. Connect the 1-3/4" duct to the bottom of the AirSep, and secure it using 1-3/4" clamp
16. Connect the lower end of the 1-3/4" duct to the keel structure at the same point where the old breather tube was attached. Attach using -30 Adel clamp and the original hardware.

NOTE: The overboard duct (Item 18) should not extend into the air stream or in no case below the lower engine cowl former.

17. Using the 3/4" hose, connect the modified P/N 35-910007-3 engine breather tube to the 3/4" inlet on the AirSep and secure with 3/4" clamps.
18. Seal the area between the elongated hole and the AirSep inlet tube with a non-flammable, high temp. sealer.
19. Plug the existing breather tube hole in the rear engine baffle.
20. Determine weight & balance, initiate Form 337, and update the equipment list.

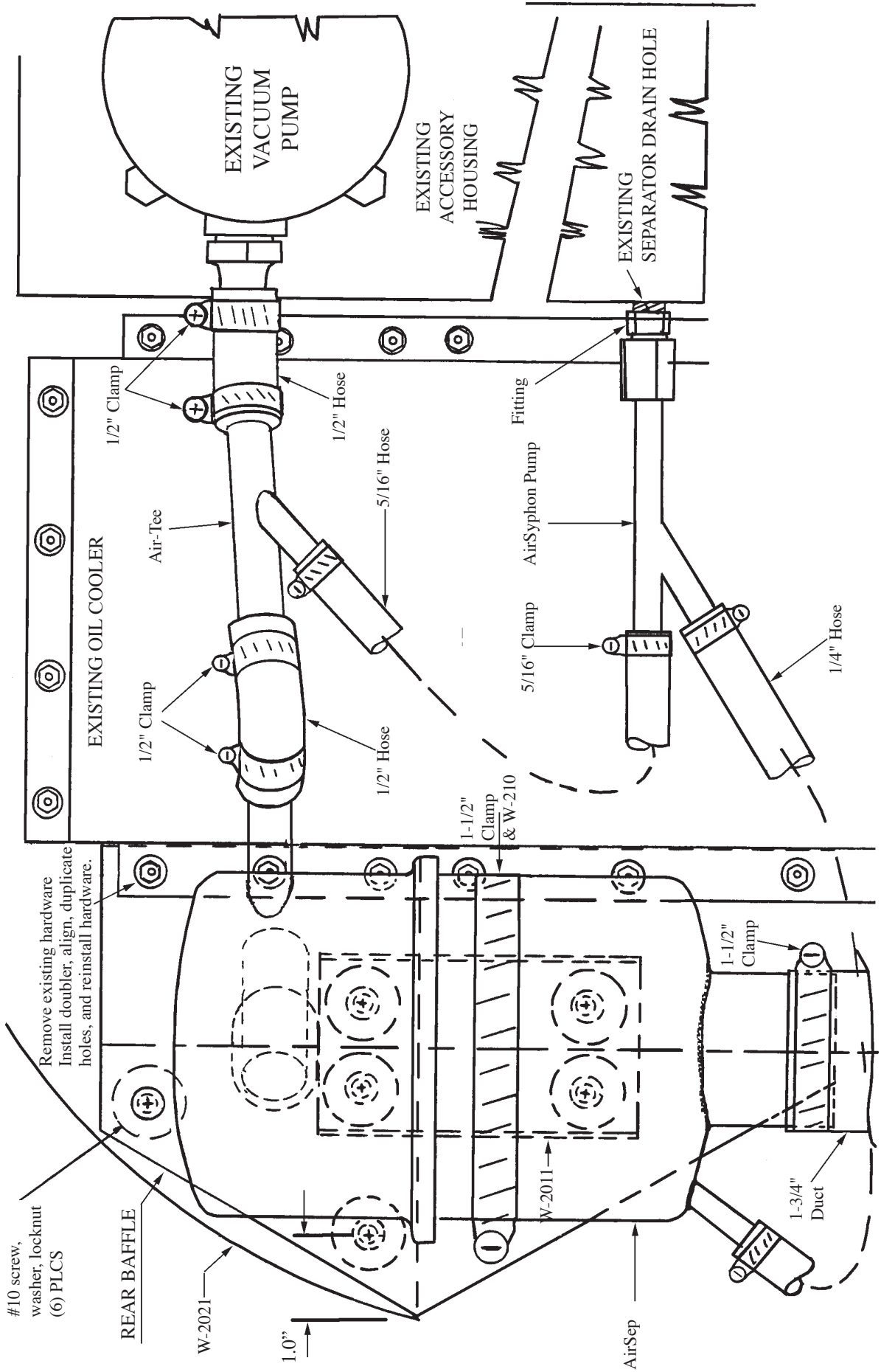
Applicability:

BEECHCRAFT
Bonanza
S35, V35, V35A
36, A36
F33A
F33C

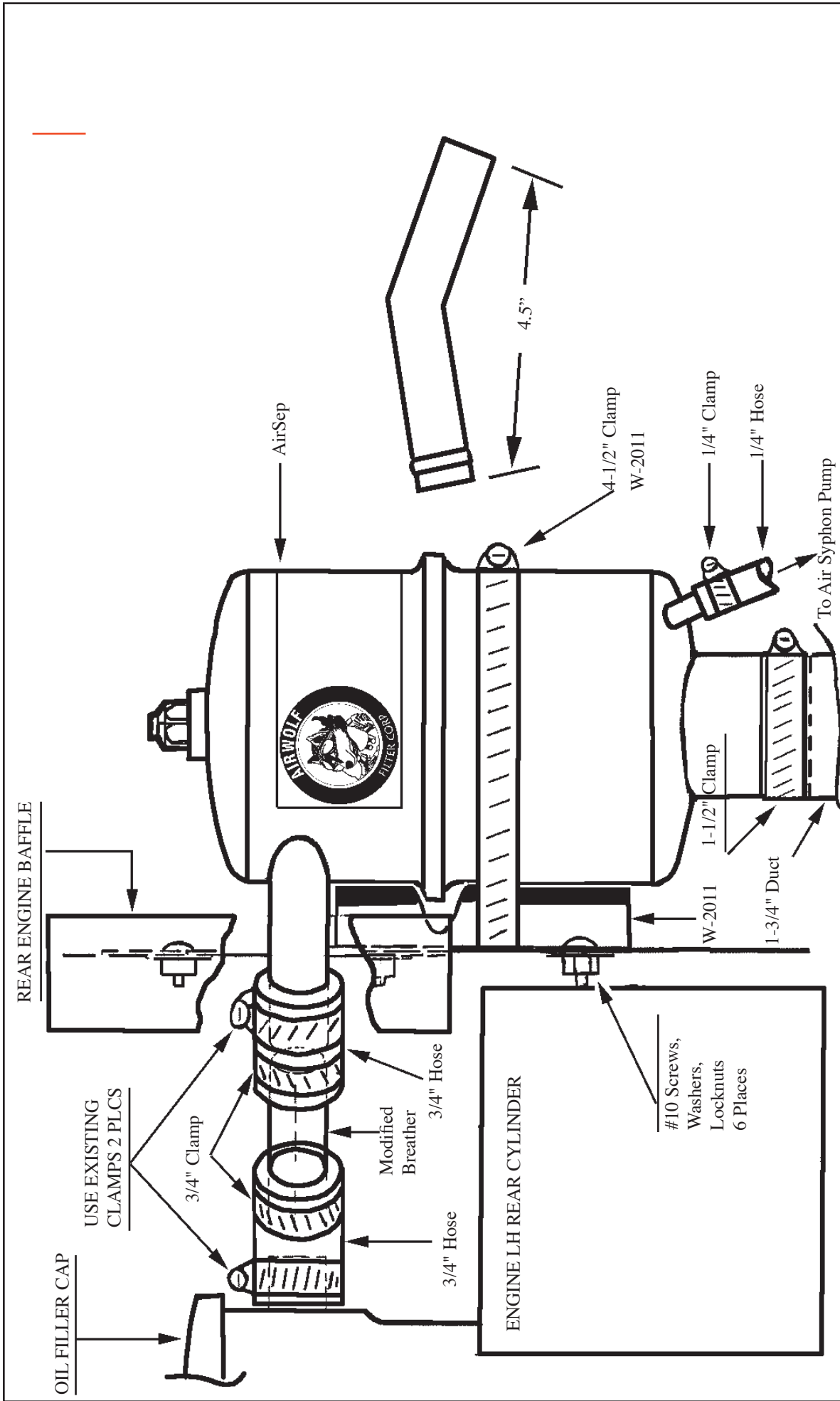
[VACUUM GYRO SYSTEMS ONLY]

[S/N D-7310 -> D-9068]
[S/N E-1 -> E-686]
[S/N CE-290 -> CE-602]
[S/N CJ-26 & After]

Drawing: AFC-W301
Revision: B
Date: 06/01/05



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



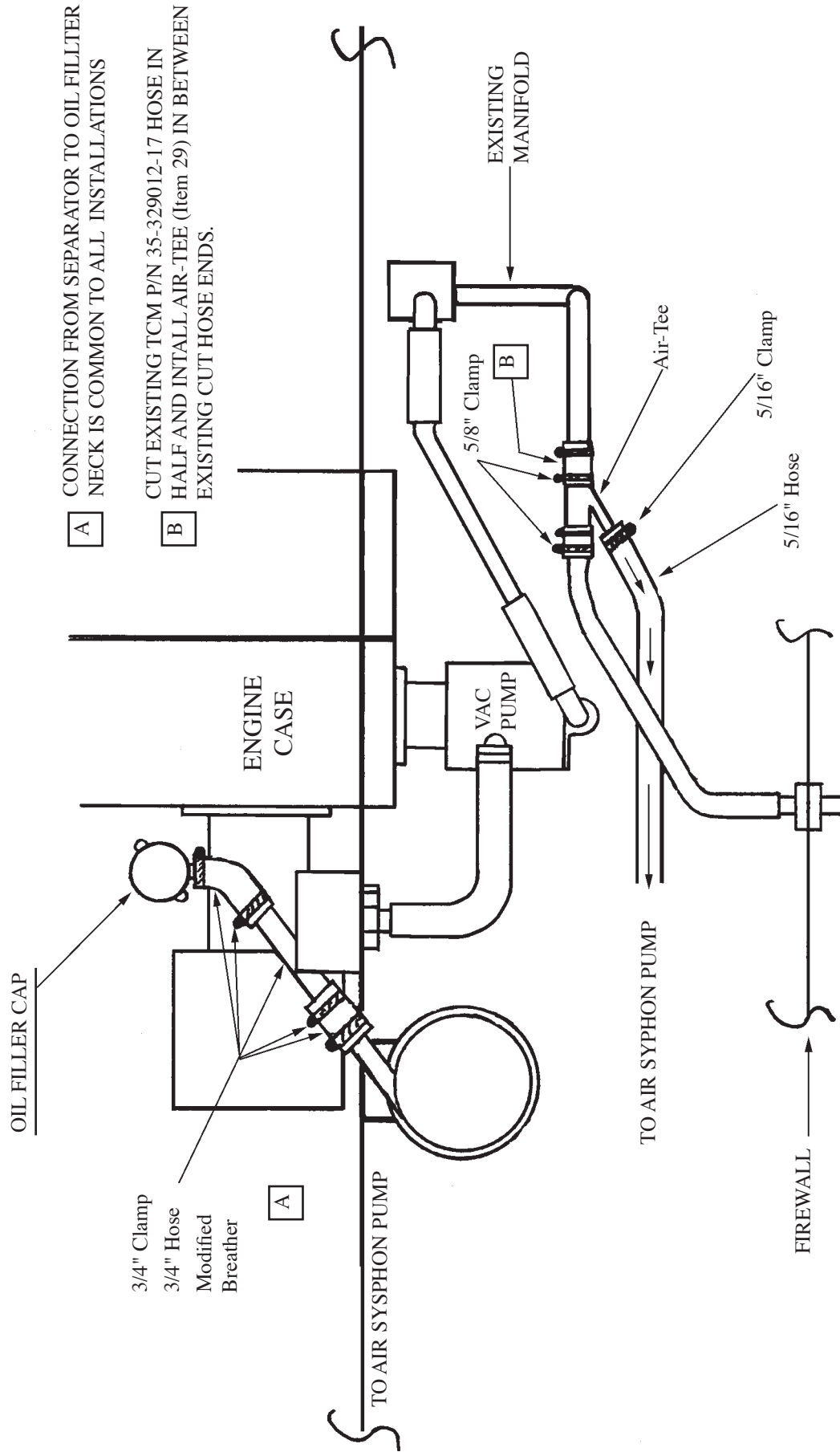
WARNING: ALL HOSES SHALL BE LOCATED AT LEAST 4.0" FROM ANY HEAT SOURCE LIKELY TO CAUSE VAPORIZATION OF THE OIL.

<p>Applicability:</p> <p>BEECHCRAFT Bonanza S35, V35, V35A 36, A36 F33A F33C</p>	<p>[VACUUM GYRO SYSTEMS ONLY]</p> <p>[S/N D-7310 -> D-9068] [S/N E-1 -> E-686] [S/N CE-290 -> CE-602] [S/N CJ-26 & After]</p>	<p>Drawing: AFC-W301 Revision: B Date: D06/01/05</p>
--	---	---

Applicability: BEECHCRAFT
 Bonanza
 S35, V35, V35A
 36, A36
 F33A
 F33C

[PRESSURE GYRO SYSTEMS ONLY]
 [S/N D-7310 -> D-9068]
 [S/N E-1 -> E-686]
 [S/N CE-290 -> CE-602]
 [S/N CJ-26 & After]

Drawing: AFC-W301
 Revision: B
 Date: 06/01/05



A CONNECTION FROM SEPARATOR TO OIL FILLER NECK IS COMMON TO ALL INSTALLATIONS

B CUT EXISTING TCM P/N 35-329012-17 HOSE IN HALF AND INTALL AIR-TEE (Item 29) IN BETWEEN EXISTING CUT HOSE ENDS.

WARNING: ALL HOSES SHALL BE LOCATED AT LEAST 40" FROM ANY HEAT SOURCE LIKELY TO CAUSE VAPORIZATION OF THE OIL.