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## Description

AirSep Assy, 3/4" Breather, 1/2" Vacuum
Air Siphon Pump
Air Tee
Bracket
Doubler
Screw, \#10 X 5/8" Long
Flat Washer, \#10
Locknut, \#10
Hose, 1/4" ID
Hose, 5/16" ID
Hose, 1/2" ID
Hose, 3/4" ID
Hose Clamp, 1/4"
Hose Clamp, 5/16"
Hose Clamp, $1 / 2^{\prime \prime}$
Hose Clamp, 3/4"
Hose Clamp, 1-1/2"
Hose Clamp, 4-1/2"
"C" Channel
Drainback Kit
Continental Gasket
Bolt, 1/4" X 2-7/8" Long
Bushing
Flat Washer, 1/4"
Star Washer, $1 / 4^{\prime \prime}$
Adel Clamp, 5/16"
Adel Clamp, 1-7/8"
Duct, 1-3/4" ID

## Quantity

(1)

Applicability:

## BEECHCRAFT <br> Bonanza H35, J35, K35, M35, N35, P35 <br> Debonair 35-33, 35-A33, 35-B33, 35-C33, 35-C33A with IO550-B Conversions

Drawing:
Revision:
Date:
AFC-w300

B
06/01/05

## Airwolf Parts List No. AFC-W300-C

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Description
AirSep Assy, 3/4" Breather, 5/8" Vacuum
Pushrod Shroud Tube
Pushrod Shroud Tube Seal, Outer
Pushrod Shroud Tube Seal, Inner
Rocker Cover Gasket
AirSyphon Pump
Air Tee, 5/8"
AirSep Bracket
Doubler
Screw, \#10 X 5/8" Long
Flat Washer, \#10
Locknut, \#10
Hose, 1/4" ID
Hose, 5/16" ID
Hose, 5/8" ID
Hose, 3/4" ID
Hose Clamp, 1/4"
Hose Clamp, 5/16"
Hose Clamp, 5/8"
Hose Clamp, 3/4"
Hose Clamp, 1-1/2"
Hose Clamp, 4-1/2"
Quantity
(1)
(1)(5)(5)
"C" Channel
Adel Clamp, 1-7/8"
Duct, 1-3/4" ID

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 \& $2 A$.

## WARNING:

## ALL HOSES SHALL BE LOCATED AT LEAST 4" FROM ANY HEAT SOURCE LIKELY TO CAUSE VAPORIZATION OF THE OIL.

1. Remove the existing air/oil separator, lines and attaching parts.
2. Remove the existing breather tube assembly from the rear engine baffle to the lower cowl flap area.
3. Align the W-2012 doubler with the lower edge of the flange on the rear engine baffle and duplicate the (4) holes that are already drilled in the doubler.
Note B: The doubler will cover up the old breather hole in the rear engine baffle.
4. Secure the W-2012 doubler to the rear engine baffle in the upper right and lower left corner using 1 ea. of \#10 Screw, Washer \& Locknut in each corner.
5. Secure the W-2011 Bracket to the doubler and the rear engine baffle using 1 each of the \#10 Screw, Washer \& Locknut in the two (2) top holes only.
6. Install protective "C" Channel onto the 4-1/2" clamp.
7. Duplicate the lower holes in the universal bracket through the doubler. Place the 4-1/2" clamp between the W-2012 doubler and the W-2011 bracket. Secure the bracket and the large clamp to the doubler using 1 ea. of a \#10 Screw, Washer \& Locknut.
8. Duplicate the 1.25 " hole through the rear engine baffle using the installed W-2012 doubler as a guide.
9. 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.
10. Install the other end of the $1 / 2$ " hose over the end of the Air-Tee and secure using a $1 / 2$ " clamp.
11. Connect one end of the other $1 / 2$ " hose to the $1 / 2$ " inlet of the AirSep, and the other end to remaining $1 / 2$ " port of the AirTee. Position the AirSep on the mounting bracket and secure using the $4-1 / 2^{\prime \prime}$ clamp on the mounting bracket.
CAUTION: Do not over torque the clamp.
12. Connect the $5 / 16^{\prime \prime}$ hose over the remaining tube on the Air-Tee and clamp in place using a $5 / 16$ " clamp. Connect the other end of that same hose to the $5 / 16$ " Branch of the Air Syphon Pump.
13. 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 of the Air Syphon Pump and secure with $1 / 4$ " clamps at each end.
14. Remove the existing oil separator drain fitting and install the straight fitting as a replacement. Connect the Air Syphon Pump on the new fitting.
15. Connect the 1-3/4" Duct to the outlet tube of the AirSep and secure with 1-3/4" clamp.
16. Connect the lower end of the Duct to the keel structure, at the same point where the old breather tube was attached. Attach using a - 30 Adel clamp and the original hardware. NOTE: The overboard duct should not extend into the airstream or below the lower engine cowl former.
17. Reroute the existing breather tube that is forward of the rear engine baffle to the remaining inlet tube of the AirSep, and secure with the existing hoses and clamp.

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 \& $2 A$.

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

1. Cut the existing breather tube approximately 2.0 " aft of the engine rear baffle on the top of the oil cooler.
2. Remove the remaining breather tube assy and clamps, etc., from the cut point to the cowl flap area. Retain the attaching hardware.
3. Locate a point 5.5 " from the left edge of the firewall inspection plate and 4.0 " from the lower edge of the same plate.
4. Remove the firewall inspection plate and drill the located position on the plate using a \# 11 drill.
5. Position the 4-1/2" clamp between the W-2011 bracket and the plate, and secure using one each of \#10 screw, washer, \& locknut.
6. Install protective "C" Channel onto the $4-1 / 2$ " clamp.
7. Position the AirSep onto the W-2011 bracket with the 3/4" inlet pointing forward directly toward the existing cut off breather tube.
8. Install the $3 / 4$ " hose over one end over the $3 / 4$ " breather tube and the other end over the $3 / 4$ " inlet tube of the AirSep. Clamp both ends in place using $1 / 2^{\prime \prime}$ clamps.
9. Modify the existing pressure instrument manifold as shown.
10. Position the Air-Tee in the existing rubber coupling on the pressure regulator with the "V" facing down and clamp in place using the existing hardware.
11. Install the $5 / 8$ " hose over the remaining $5 / 8^{\prime \prime}$ port of the Air-Tee and clamp in place using a $5 / 8$ " clamp.
12. Install the other end of the $5 / 8^{\prime \prime}$ hose over the cut end of the manifold as shown and clamp it in place using a $5 / 8^{\prime \prime}$ clamp.
13. Remove the \#1 cylinder rocker cover and modify it in accordance with KW-2031 drainback kit.
14. Reinstall the rocker cover using the gasket provided.
15. Install the Air Syphon Pump on the newly modified rocker cover fitting as shown.

Note: Optional Modified Pushrod Shroud Tube and applicable Pushrod Tube Seals can be used if you do not want to modify the rocker box cover.
16. Install the $1 / 4^{\prime \prime}$ hose from to the $1 / 4$ " branch of the Air Siphon Pump to the $1 / 4$ " drain on the AirSep. Clamp both ends using 1/4" clamps
17. Connect the $5 / 16$ " hose to the remaining $5 / 16^{\prime \prime}$ port of the Air Siphon Pump and the other end to the remaining $5 / 16$ " port of the Air-Tee. Clamp both ends using $5 / 16^{\prime \prime}$ clamps
18. Install the $1-3 / 4^{\prime \prime}$ duct onto the bottom of the AirSep and clamp it in place using 1-3/4" clamp.
19. Secure the other end of the 1-3/4" duct to the aft, lower cowl former just forward of the cowl flap using a - 30 adel clamp and secure with \#10 screw, washers= \& locknut.
20. Determine weight \& balance, initiate Form 337, and update the equipment list.





