

Beechcraft SERVICE INSTRUCTIONS

CLASS II

33, 35, 36, A45 (T-34A), B45, 55, 95

No. 0488-281, Rev. II
ATA Code 28-10
Recurring Inspection

SUBJECT: FUEL SYSTEM – INSPECTION OF FUEL CELL VENT LINES AND FUEL FILLER CAPS.

SYNOPSIS OF CHANGES: Corrected model series callout under MATERIAL.

EFFECTIVITY: All BEECHCRAFT Debonair/Bonanza 35-33 series, serials CD-1 and after, CE-1 and after and CJ-1 and after;
35 series, serials D-1 and after;
36 series, serials E-1 and after;
All Models A45 (T-34A) and B45;
Baron 95-55 series, serials TC-1 and after and TE-1 and after;
Travel Air 95 series, serials TD-1 and after.

REASON: To reemphasize the importance of properly maintained and unobstructed fuel cell vent lines and syphon break lines and to check for air leaks around the fuel filler caps. Information on this subject was originally issued in the following BEECHCRAFT Service Letters on August 5, 1951 and revised on December 1, 1955.

Model:	35	No. 45
	A35	No. 27
	B35	No. 12
	C35	No. 8
	D35, E35 and F35	No. 7
	G35	No. 6

These Service Instructions supersede the above noted Service Letters.

COMPLIANCE: At the earliest convenience, but no later than the next 100 hours of time in service and at each 100 hours of time in service thereafter.

DESCRIPTION: Fuel cell vent lines and syphon break lines are to be checked for possible obstructions which would render them inoperative. Fuel cell vent lines are also to be checked to determine if they are properly positioned to ensure positive fuel cell vent pressure. Fuel caps are to be checked for looseness or deteriorated seals which could cause air leaks which would create negative pressure and draw air and/or fuel from the fuel cells.

APPROVAL: FAA Approved - DOA CE-2.

MANPOWER: The following information is for planning purposes only.

Estimated man-hours: .5 hour.
Suggested number of men: 1 man.

No BECP
273
R473
R673

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The operation, care and maintenance of the airplane is the owners responsibility. As conditions warrant BEECH AIRCRAFT CORPORATION issues service instructions, recommending modifications and operational procedures to enable the owner to get the maximum utility and safety from his airplane. These instructions are available to BEECHCRAFT owners through their BEECHCRAFT Distributor or Dealer. An index of Service Instructions is issued periodically. When instructions are issued, a temporary recording of the publication should be made in the appropriate index. Warranty reimbursement will be considered on specific items so noted in the service instruction provided the airplane is within the first six month period after delivery from the Factory and meets the terms and conditions defined in the published standard BEECHCRAFT warranty. Requests for warranty consideration on items so noted must be received within the time limits noted in the service instructions.

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MATERIAL: The following replacement seals, if required, may be obtained through your BEECHCRAFT Parts and Service Outlet.

MODEL	NEW P/N	OLD P/N	DESCRIPTION	QUANTITY	PRICE*
	MS29513-232	AF934-147 or MS29513-232	O-Ring		\$ 5.00**
35-33, 35-A33, F35, G35, K35, M35, A45 (T-34A), B45			for 10 gal. aux. fuel cell	2 per aircraft	
H35			for 25 gal. fuel cell	2 per aircraft	
J35, K35, M35, N35			for 20, 25 or 40 gal. fuel cell	2 per aircraft	
95, B95			all fuel cells	2 per aircraft	
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	35-921526-30	No P/N change	O-Ring		\$15.26***
35-33, 35-A33, 35-B33, 35-C33, E33, F33, 35, A35 B35, C35, D35, E35, F35			for 25 gal. fuel cell	2 per aircraft	
35, A35, B35, C35, D35, E35, F35, G35			for Opt. bag. compt. fuel tank	1 per aircraft	
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B95A, D95A, E95	37617-339	37615-339	O-Ring for 25 or 31 gal. fuel cells	2 per aircraft	\$.95 each
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	MS29513-338	No P/N change	O-Ring (for Shaw Aero Devices fuel caps)		\$.65 each
	or				
	37617-339	No P/N Change	O-Ring (for Gabb Spec. Co. fuel caps)		\$.95 each
35-B33, 35-C33, E33, F33, G33 35-C33A, E33A, F33A, E33C, F33C D95A, E95			for 40 gal. fuel cells	2 per aircraft	
F33A, G33			for 25 gal. fuel cells	2 per aircraft	

MODEL	NEW P/N	OLD P/N	DESCRIPTION	QUANTITY	PRICE *
N35, P35, S35, V35, V35TC, V35A, V35A-TC, V35B, V35B-TC, 36, A36, 95-55, 95-A55, 95-B55, 95-B55A, 95-C55, 95-C55A D55, D55A, E55, E55A	MS29513-338 or 37617-339 (cont'd.)	No P/N change	for all fuel cells	2 per aircraft	

*Suggested selling price. (Subject to change without notice.)
 **Price for a minimum buy quantity of 10 parts.
 ***Price for a minimum buy quantity of 6 parts.

SPECIAL TOOLS: None.

WEIGHT AND BALANCE: None.

REFERENCES: Applicable current BEECHCRAFT parts catalogs.

PUBLICATIONS AFFECTED: It is recommended that a note be made to "See Service Instructions No. 0488-281, Rev. II" in the following publications:

Section 3 of all Models 33, 35 and 95 Shop Manual copies;
 Section 8 and 16 of all Models 36 and 55 Shop Manual copies;
 Section 7 (Periodic Inspection) of all Models 35 and 95 Shop Manual copies;
 Section 8 (Periodic Inspection) of all Model 33 Shop Manual copies;
 All applicable sections of Models A45 (T-34A) and B45 Maintenance Manual copies;
 All applicable model series BEECHCRAFT Approved Periodic Inspection Guide forms.

ACCOMPLISHMENT INSTRUCTIONS:

Inspection of the fuel cell vent lines and filler caps may be accomplished as follows:

1. Remove the access plate from the lower wing surface at the outboard end of each wing fuel cell.
2. On aircraft not equipped with flush type fuel filler caps, open the door on the upper wing surface above each fuel filler cap.
3. On earlier aircraft equipped with the 10 gallon wing auxiliary fuel cells, remove the access plates from the lower wing surface just outboard of the auxiliary fuel cells and just aft of the auxiliary fuel cell flush vent.
4. Perform the following procedural steps for each fuel cell of the airplane.
 - a. Disconnect the fuel cell vent line from the fuel cell.

terminating at the filler neck scupper, determine that air is issuing freely from the line at the scupper, then plug the line at this point and clear the remaining portion of the cell vent system as described above.

d. On airplanes with the syphon break line terminating on the lower surface of the wing, remove the syphon break check valve and blow air through the syphon break line from the check valve end, then reinstall the valve.

CAUTION

Be certain to reinstall the check valve with the arrow on the valve pointing toward the fuel cell, and with the valve hunge at the top of the valve.

NOTE

On some earlier aircraft equipped with the auxiliary fuel tank in the baggage compartment, the vent tube is connected to the tank on the forward side of the fuel filler neck and is accessible from the inside of the cabin.

- b. Apply air pressure to the fuel cell end of the vent line.
- c. Alternately plug each vent opening (extended or flush) to assure that air is passing through all branches of the vent system for the cell, and continue to blow air through each branch until any obstructions have been removed. On early serials with the syphon break line

e. Reconnect the fuel cell vent line to the fuel cell.

5. Reinstall the access plate below each fuel cell.
6. Visually check each fuel cell filler cap for looseness or deterioration of the seal which could cause leakage. If seals are deteriorated or damaged in any way, they should be replaced.
7. On airplanes not equipped with flush type fuel filler caps, secure the door above the fuel filler neck of each fuel cell.
8. Check the extended vent of the wing main and auxiliary fuel cells to ascertain that the vent extends a minimum of 1.75 inches below the lower wing skin surface.

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The vent tube should be scarfed at a 45° angle on the forward side and canted forward 10° from vertical to assure positive vent pressure.

The common extended vent for the 10 gallon wing auxiliary fuel cells, which is located just forward of the rear spar carry-thru in the fuselage belly should extend 1.50

inches below the skin surface. This vent tube should also be scarfed at a 45° angle on the forward side and should be set between canted forward 5° and perpendicular to the skin.

Any configuration of the vent tubes other than the above may create negative air pressure which could draw air from the fuel cells.

RECORD COMPLIANCE:

On completion of these Service Instructions, make an appropriate maintenance record entry.