



CLASS II

# SERVICE INSTRUCTIONS

23, 76

No. 1101 Rev. I  
ATA Code 73-10

**SUBJECT:** ENGINE FUEL AND CONTROL - REPLACEMENT OF THE ENGINE DRIVEN FUEL PUMP

**SYNOPSIS OF CHANGE:** Changed COMPLIANCE, removed P/N 105-910010-75 gusset from MATERIAL list, changed estimated man-hours for PART II, deleted WARRANTY and removed Duchess 76 engine mount modification from the ACCOMPLISHMENT INSTRUCTIONS.

**EFFECTIVITY:** Part I

BEECHCRAFT B23 and C23, serials M-1095 through M-1361;  
C23 Sundowner 180, serials M-1362 through M-2165, M-2167, M-2169 and M-2171.

Part II

BEECHCRAFT Duchess 76, serials ME-1 through ME-176.

**REASON:** To provide a method of replacing the original engine driven fuel pump with the new type fuel pump which is currently being supplied. The original fuel pump is no longer available.

**COMPLIANCE:** Beech Aircraft Corporation recommends these Service Instructions be accomplished whenever the original engine driven fuel pump requires replacement.

### NOTE

Unless previously accomplished on Duchess 76 airplanes, new P/N 105-910019-1 engine mounts must be installed in accordance with BEECHCRAFT Service Instructions No. 1147 Rev. I or subsequent, prior to installing a new P/N LW16335 fuel pump.

**APPROVAL:** Engineering data contained in these Service Instructions is FAA approved.

**MANPOWER:** The following information is for planning purposes only:

#### PART I

*Estimated man-hours: 2 hours.*  
*Suggested number of men: 1 man.*

No BECP  
1279 II  
R 582 II

1 of 3

CLASS II

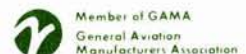
Beech Aircraft Corporation issues service information for the benefit of owners and fixed base operators in the form of three classes of Service Instructions. CLASS I (Red Border) are changes, inspections, and modifications that could affect safety. The factory considers compliance mandatory. CLASS II (Green Border) covers changes, modifications, improvements or inspections the factory feels will benefit the owner and although highly recommended, they are not considered mandatory compliance, unless specified at the time of issuance. Class I and II are mailed to:

- (a) BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers
- (b) Owners of record on the FAA Registration list and the

BEECHCRAFT International Owner Notification Service List.  
(c) Those having a publications subscription.

CLASS III (No Border) covers changes which are optional, maintenance aids, product improvement kits and miscellaneous service information. Compliance is at the owner or operator's prerogative. Copies of Class III are distributed per a and c above. Information on Owner Notification Service or Subscriptions can be obtained through any BEECHCRAFT Aero or Aviation Center, International Distributor and Dealer, or the Factory. As Service Instructions are issued, temporary notation in the index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Instructions and in accordance with Beech Warranty Policy.

98-34238D



## Service Instructions No. 1101 Rev. I

### PART II

Estimated man-hours: 2.5 hours per engine.  
Suggested number of men: 2 men.

**MATERIAL:** The following parts may be ordered through BEEHCRAFT Aero or Aviation Centers and International Distributors and Dealers.

### PART I

PART NUMBER	DESCRIPTION	QUANTITY
LW16335	Fuel Pump	1 per airplane
77154	Gasket	1 per airplane
60096	Gasket	1 per airplane

### PART II

LW16335	Fuel Pump	1 per engine
77154	Gasket	1 per engine
60096	Gasket	1 per engine
130524-6-0094	Hose Assy.	1 per engine

The value of the parts required to incorporate these Service Instructions on one airplane is to be advised. Prices, when issued will be subject to change without notice.

**WARRANTY:** None.

**SPECIAL TOOLS:** None.

**WEIGHT AND BALANCE:** None.

**REFERENCES:** BEEHCRAFT Service Instructions No. 1147, Rev. I or subsequent revision;  
Avco Lycoming Servicing Instructions No. 1110B or subsequent. (May be obtained from Avco Lycoming, Williamsport Div., Avco Corporation, 652 Oliver St., Williamsport, Pa. 17701.)

### **PUBLICATIONS AFFECTED:**

It is recommended that a note to "See Service Instructions No. 1101 Rev. I" be made in the following:

19, 23 and 24 series Shop Manual copies, P/N 169-590015G or subsequent, Section 3;  
76 Maintenance Manual copies, P/N 105-590000-7 or subsequent, Chapter 71;  
19, 23 and 24 series Parts Catalog copies, P/N 169-590012J or subsequent, Figure 241D;  
B19, C23 and C24R Parts Catalog copies, P/N 169-590026C or subsequent, Figure 241;  
76 Parts Catalog copies, P/N 105-590000-9C or subsequent, Chapter 71.

### **ACCOMPLISHMENT**

**INSTRUCTIONS:** These Service Instructions may be accomplished as follows:

#### PART I

1. Remove all electrical power and disconnect the battery. Turn the fuel selector valve to OFF.

2. Remove the engine upper and lower cowl as instructed in the Shop Manual.

3. Disconnect the throttle and mixture controls at the carburetor end. Disconnect the fuel lines and the carburetor air valve or inlet elbow, as applicable, from the carburetor and remove the carburetor from the airplane.

4. Mill the carburetor boss as shown in Lycoming Service Instructions No. 1110B or subsequent.

5. Disconnect the fuel lines from the existing engine driven fuel pump and remove the fuel pump from the engine.

6. Remove the fittings from the old fuel pump and install them in the new P/N LW16335 fuel pump as follows:

- a. Install the 45° elbow in the RH side of the fuel pump with the open end of the fitting pointing upward.
- b. Install the 90° elbow in the LH side of the fuel pump with the open end of the fitting pointing 45° aft of straight up.

7. Install the new engine driven fuel pump P/N LW16335 with a new P/N 60096 gasket. Torque the mounting bolts to 110/120 inch-pounds and safety wire as required.

8. Reconnect the fuel lines to the pump and torque the fittings to 110/120 inch-pounds.

9. Using a new P/N 77154 gasket, reinstall the carburetor, reconnect the fuel lines, and throttle and mixture controls and the inlet elbow or carburetor air valve.

10. Rig the throttle and mixture controls for full travel with a slight (approx. 1/16 inch) cushion at the forward end of travel.

11. Reinstall the upper and lower engine cowl and reconnect the battery.

12. Start the engine and check operation of the new fuel pump and the carburetor.

13. Shut down the engine and check for possible leaks.

#### PART II

1. Remove all electrical power and disconnect the battery. Turn the fuel selectors to OFF.

2. On the affected engine, remove the upper and lower cowl.

3. Disconnect the throttle and mixture controls at the carburetor end. Disconnect the fuel lines and the carburetor air valve or inlet elbow, as applicable, from the carburetor and remove the carburetor from the airplane.

4. Disconnect the fuel lines from the existing engine driven fuel pump and remove the fuel pump from the engine.

5. Machine the carburetor boss and the engine accessory housing boss in accordance with Lycoming Service Instruction No. 1110B.

6. Using a new P/N 77154 gasket, reinstall the carburetor.

7. Install the fittings from the old fuel pump in the new P/N LW16335 fuel pump and install the pump on the engine with a new P/N 60096 gasket. Torque the mounting bolts to 110/120 inch-pounds and safety wire as required.

8. Remove the existing P/N 105-420000-55 tube assembly from the LH side of the fuel pump and replace it with a new P/N 130524-6-0094 fuel hose. Torque the fittings to 110/120 inch-pounds.

9. Rig all controls for full travel with a slight (approx. 1/16 inch) cushion at the forward end of travel.

10. Reconnect the battery, start the engine and check engine operation and operation of the engine driven fuel pump and the carburetor.

11. Check for possible fuel leaks and reinstall the engine cowling.

#### RECORD

**COMPLIANCE:** Upon completion of these Service Instructions, make an appropriate maintenance record entry.