



REVISION	DATE	DESCRIPTION
D	04-19-02	CORRECTED SPELLING ERRORS.
C	06-16-98	REVISED INSTALLATION INSTRUCTIONS BY ADDING BRAZE CAUTION.
B	09-17-96	REDRAWN REFERENCE REVISION SHEET
A	07-20-96	1-ITEM 6
-	07-27-94	ORIGINAL

<b>AVGLAS</b> AIRCRAFT COMPONENTS		
<b>McFARLANE AVIATION, INC.</b> 696 E. 1700 ROAD. BALDWIN CITY, KANSAS 66006		
SCALE: N/A	APPROVED BY: <i>David A. M. Yelton</i>	DRAWN BY: F.M.
DATE: 09-17-96		PAGE 1 OF 2
SHAFT KIT INSTALLATION INSTRUCTIONS AND APPLICATION		
		DRAWING NUMBER: <b>B5</b>

1. Remove the carburetor heat box from the engine and remove the nut from the control arm shaft.
2. To remove the shaft from the heat box, heat the braze tack points or grind the tack welded points that hold the butterfly and the shaft together. Pull the shaft out of the heat box.
3. File or grind the remains of the old bearing (bushing) from the sides of the heat box to furnish a smooth surfaces for the new bearing housings.
4. Align both bearings and the shaft through the heat box to correspond with the old alignment.
5. Secure the new bearing housings to the heat box by riveting, brazing or tack welding. DO NOT use excessive amounts of heat during brazing or welding as the bronze bearing in the bearing housing can be damaged. Remove the shaft prior to Step 6. (See Note 1)
6. Place the butterfly in the heat box and reinsert the shaft.
7. With the butterfly and the shaft control arm in the cold position, braze or tack weld the butterfly to the shaft. DO NOT use excessive amounts of heat during brazing or welding, as the bronze bearing in the bearing housing can be damaged. Install the washer and self locking nut on the shaft threads.
8. Check for freedom of operation and side play of the shaft assembly prior to re-installation on the engine. The shaft and butterfly assembly must work smoothly with some side play. The butterfly must contact the carburetor heat box surfaces such that it will act as an air valve in both the hot and cold positions.
9. Clean prime and paint the heat effected areas as required to prevent rust. Oil the bearings.
10. Reinstall the carburetor heat box on the engine and then check for proper operation.

Note 1 (Step 5): When installing the bearing housings using the rivet method, use flush head rivets with the heads flush inside of the heat box to eliminate the butterfly from striking the rivet heads during operation.

#### INSTALLATION ELIGIBILITY (Teledyne Continental Engines)

<u>Kit Number</u>	<u>Carburetor heat box P/N</u>	<u>Engine Model</u>	
FG-100	50256	C-75 / C-85 / C-90	(4 Cyl. Engine)
FG-100	628122, 653675, 641534	0-200	(4 Cyl. Engine)
FG-105	530852, 531143	0-300	(6 Cyl. Engine)

**AVGLAS** AIRCRAFT  
COMPONENTS

**McFARLANE AVIATION, INC.**

696 E. 1700 ROAD. BALDWIN CITY, KANSAS 66006

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DRAWN BY: FM

DATE:

*D. McFarlane*

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