

SUBJECT: Maule **M-4-220C** modified by replacing existing Franklin **6A-350-C1** Engine with a Continental **IO-360 A** or **D** Engine.

ELIGIBLE AIRPLANES: MAULE Model **M-4-220C**, s/n's 2001C - 2190C

A) **SUMMARY OF MODIFICATIONS:**

1. **Existing parts to be removed:**

Franklin 6A-350-C1 engine Installation except parts applicable to Continental IO-360-A or -D engine installation.

2. **New IO-360-A or D Engine parts to be installed:**

5161E Engine Installation for IO-360 and Drawings listed thereon

5162E Engine Baffle Installation (Include Items (33) - (42))

3. **Manuals:** (To be placed in airplane upon completion)

- a. M-4-210C Airplane Flight Manual, **Rev. 3** dated 10/15/68 for the IO-360-A **OR**
Rev. 4 dated 06/20/73 for the IO-360-D.
- b. M-4-210C Weight and Balance Data
- c. M-4-210C Required and Optional Equipment Lists

4. **Drawings Required:**

5161E Engine Installation and Drawings listed thereon

B) **MODIFICATION INSTRUCTIONS**

1. **Remove Existing Franklin Engine and Component Parts:**

- a. Remove 6A-350-C1 engine and component parts, with exception, items approved for the IO-360-A or D engine installation per drawing 5161E.

2. **Install IO-360-A or D Engine and Component Parts:**

- a. Install Continental IO-360-A or D engine and ref. parts per drawing 5161E and per listed drawings thereon.

3. **Cylinder Head Temperature, Oil Temperature and Manifold Pressure Gauges:**

- a. Gauge markings to be per Maule drawing 6029F, (Table 1). CAUTION: Oil Temperature markings are different for the "A" and "D" engine.

4. **Install new Identification Plate:**

- a. Attach Modification Identification plate 8001B-1 adjacent to existing Data plate (model and s/n) on tail using 3D42BS blind rivets (#30 drill). (Both plates are required to be installed on fuselage exterior aft of baggage door or near the tail surfaces per FAR 45.11(a). (Original Type Data plate may be left on left door post if installed there during production.)

MODIFIED TO M-4-210C DATE:

NOTE: Date should be when aircraft is returned to service.

5. **Reweigh Airplane for new Weight and Balance Data Summary:**

- a. Reweigh airplane per M-4-210C Weight and Balance Data. Complete calculations of empty weight and empty weight center of gravity. Insert new Weight and Balance Data in M-4-210C Airplane Flight Manual.

6. **Designate items installed on new Equipment Lists:**

- a. Fill-in information on top of each page and designate items installed on new lists by circling the correct numbers. Substitute new Equipment Lists for the existing lists. Insert behind Weight and Balance Data in M-4-210C Airplane Flight Manual.

NOTE: Possible effective Maule Service Letters and Bulletins: (Check if your aircraft is affected and compliance status.)

Service Letters #6, #7, #10, #13, #14, #17, #19, #21, #23, #31, #32, #33

Service Bulletins #1, #2, #5, #6, #9, #10, #11

DOCUMENTATION

A new Airworthiness Certificate is required and aircraft must be reregister as a model M-4-210C. Make Appropriate Entry in Aircraft Log Book and complete Compliance Record Sheet for Service Letter #53 and return it to Maule Engineering Record Department for sending any Service Letters or Bulletins affecting the M-4-210C aircraft.

Page 3 of this Service Letter is the Compliance Record Sheet which is to be returned to the Maule Engineering Record Department upon completion of modifications.

MAULE AEROSPACE TECHNOLOGY, INC.

LAKE MAULE :- RT. 5, BOX 318 :- MOULTRIE, GA. 31768 :- PHONE (912) 985-2045 :- FAX: (912) 890-2402

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MAULE SERVICE LETTER NO. 53

COMPLIANCE RECORD SHEET

Airplane Serial Number _____

Airplane Registration Number _____

The following action was taken with respect to this Service Letter: (Please check applicable boxes)

- () Service Letter No. 53 which modifies the model M-4-220C airplane to an M-4-210C has been completed on this airplane.
- () IO-360-A Engine was installed and M-4-210C Airplane Flight Manual with revision 3 dated 10/15/68 with new Weight and Balance Data and REL/OEL forms completed, has been placed in aircraft.
- () IO-360-D Engine was installed and M-4-210C Airplane Flight Manual dated with revision 4 dated 6/20/73 with new Weight and Balance Data and REL/OEL forms completed, has been placed in aircraft.

Certified by _____

Signature

Title _____

Owner, A & P, IA, etc.

Date performed _____

In our effort to keep our mailing list current for sending any Service Letters and Bulletins, AFM revisions, etc., that may affect your aircraft, please complete the following:

Owner's name _____

Owner's address _____ Zip _____

Mail this Compliance Record Sheet to: Maule Aerospace Technology, Inc.
Engineering Records
2099 GA Hwy 133 South
Moultrie, GA 31768 USA

8/20/97

IT'S PERFORMANCE THAT COUNTS!

MAULE

DRAWINGS Required for Service Letter #53 or Service Kit #3:

3203B

3204B

3205B

5039F

5081X

5083F

5144B

5152B

5161E

5162E

5167B

5168B

5169B

5170B

5174B

5182X

5183B

5187B

5190F

5230F

6029F

6040B

6041B

6051B

6052B

6053B

7016F

7020F,

SHT:1

7021B

8/3/94