

Maule Aircraft Corporation

SPENCE AIR BASE :: MOULTREE, GEORGIA 31768 :: PHONE 912/985-2045



January 15, 1980
Page 1 of 3
Rev. A dated 2/25/93

SERVICE LETTER #42

SUBJECT: Replacement of IO-360-A engine with IO-360-D engine.

AIRPLANES AFFECTED: Maule M-4-210 s/n 1001-1045, M-4-210C s/n 1001C-1085C.

COMPLIANCE: Optional at owner's discretion and when IO-360-A engine is replaced with IO-360-D engine.

STATUS: To provide a replacement engine.

AUTHORITY: This Service Letter is FAA approved.

BACKGROUND: The IO-360-A engine was replaced in production in 1972 by the IO-360-D engine. These engines are interchangeable, requiring only system update to incorporate new baffling and alternator system.

MATERIAL REQUIRED AND ACTION TO BE TAKEN:

1. Attach one of the following AFM Supplements to the Airplane Flight Manual:
 - a. FAA approved Airplane Flight Manual Supplement No. 4 to M-4-210 Airplane Flight Manual dated September 24, 1964, or
 - b. FAA approved Airplane Flight Manual Supplement No. 9 to M-4-210C Airplane Flight Manual dated March 15, 1966.
2. Attach M-4-210/C Required Equipment List dated 9/13/73 for the IO-360-D engine to Airplane Flight Manual.
3. Install the following Baffle Parts per Maule drawing 5162E:

5213B	Baffle, Oil Cooler
5207B	Baffle, Oil Cooler
5208B	Baffle, Oil Cooler
5210B	Baffle, Center
5211B	Bracket, Right Rear
5084E-7	Bracket, Attach
5215B	extension, sealing
5162E-4	Seal
AN526-832R6	Screw
AN365-832	Nut
SB-4-2	Pop Rivets
4. Wiring diagram for charging system - Maule drawing 7047F
5. DCN M2210A to drawing 5040X (Cowling Modification).

6. Drawing 5087B (Magneto Filter Installation).
7. DCN M2217 to drawing 6029F (Instrument markings).
8. DCN M2216 to drawing 6037B (Tachometer Installation).
9. Excerpt from drawing 5182X (Fuel Line routing).
10. Cylinder Head Temperature gauge and probe - required only if airplanes are not already equipped. (Install slug and probe in cylinder No. 4.)

Possible effective Maule Service Letters for the M-4-210 series airplanes: #6, #7 (AD#65-28-04), #9, #10, #11, #13, #14 (AD#68-07-08), #15 (Optional compliance), #17, #19 (AD#69-2002), #31 (AD#75-11-02), #32 (AD#84-09-07), #33, #55 and Service Bulletins #1, #2, #5 and #6. Check if aircraft affected and compliance status.

Make proper Log Book entries when modification is completed. Fill out Service Letter Compliance Record Sheet and return to Maule Engineering Records Department/R#5 Box 318/Moultrie, GA 31768. Return aircraft to service via Form #337.



COMPLIANCE RECORD SHEET

Airplane Serial Number _____

Airplane Registration Number _____

The following action was taken with respect to this Service Letter:

- I have replaced the Continental IO-360-A engine with a IO-360-D in this airplane in accordance with this Service Letter.
- I have attached the proper Airplane Flight Manual Supplement and Required Equipment List to the Airplane Flight Manual in accordance with this Service Letter.
- To the best of my knowledge, all Maule Service Letters and Bulletins have been complied with that are effective for this airplane.

Certified By (Signature) _____

(Print Name) _____

Title (Owner, A & E, IA, etc.) _____

Date _____

In our effort to keep our mailing list current for any Service Letters, Service Bulletins, or Airplane Flight Manual Revisions affecting this aircraft, please fill in the following:

Owner's Name _____

Owner's Address _____

City _____ State _____ Zip _____

Please return this Compliance Record to: **Maule Air, Inc.**
2099 GA Hwy. 133 S.
Moultrie, GA 31788
ATTN: Engineering Records

MAULE AIRCRAFT CORPORATION
MOULTRIE, GEORGIA 31768

FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT NO. 4
FOR
MAULE AIRCRAFT CORPORATION MODEL
M-4-210

This supplement must be attached to the FAA Approved Airplane Flight Manual dated 24 September 1964 when the IO-360-D engine is installed in accordance with Service Letter #42.

The information contained herein supplements or supersedes the information of the basic Airplane Flight Manual; for Limitations, procedures and performance information not contained in this Supplement, consult the basic Airplane Flight Manual.


I. Limitations

A. Engine	Continental Model IO-360-D
B. Engine Limits	210 H.P. @ 2800 RPM All operations
C. Propellers	McCauley D2A34C67N/S76C-2
D. Power Plant Instruments	
Manifold Pressure	No. required markings
Oil Temperatures	Green Arc: 75°- 240°F (Normal Operating Range) Red Radial: 240°F

II. Procedures

A. Normal Procedures

1. When climbing at altitude observe cylinder head temperature gauge to prevent engine overheating.


FRANCIS C. ROCK, Assistant Chief
Engineering and Manufacturing
Branch, Southern Region, FAA

Date: January 15, 1980

MAULE AIRCRAFT CORPORATION
MOULTRIE, GEORGIA 31768

FAA APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT NO. 9
FOR
MAULE AIRCRAFT CORPORATION MODEL
M-4-210

This supplement must be attached to the FAA Approved Airplane Flight Manual dated 15 March 1966 when the IO-360-D engine is installed in accordance with Service Letter #42.

The information contained herein supplements or supersedes the information of the basic Airplane Flight Manual; for limitations, procedures and performance information not contained in this Supplement, consult the basic Airplane Flight Manual.

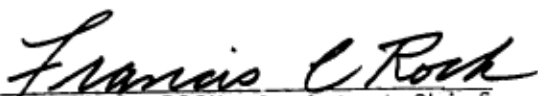
I. Limitations

A. Engine	Continental Model IO-360-D
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II. Procedures

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FRANCIS C. ROCK, Assistant Chief
Engineering and Manufacturing
Branch, Southern Region, FAA

Date: January 15, 1980

The following is FOR REFERENCE ONLY.
Maule Service Letters effective for Maule Model M-4-210/C aircraft:

- #6 S/N 1001-1005
- #7 S/N 1001-1035
- #8 S/N 1001-1028
- #9 S/N 1001-1050
- #10 S/N 1002, 1003, 1005, 1006, 1008-1014, 1016, 1017, 1019-1021, 1023-1027, 1030, 1031, 1033
- #11 S/N 1001-1043, 1001C-1010C
- #13 S/N 1001-1045, 1001C-1062C
- #14 S/N 1001-1045, 1001C-1064C
- #15 S/N 1001-1045, 1001C-1074C, 1079C, 1080C (Optional compliance)
- #17 S/N 1066C, 1067C, 1071C, 1074C, 1075C, 1079C
- #19 S/N 1001-1045, 1001C-1075C, 1079C, 1080C
- #31 All S/N'S
- #32 All S/N'S Fitted With AUX TANKS Via In Field Installations
- #33 All S/N'S equipped with single stack exhaust system
- #55 All S/N'S

Service Bulletins effective:

- #1 All S/N'S
- #2 All S/N'S
- #5 All S/N'S
- #6 All S/N'S W/AUX Tank Vent Line CHECK VALVES Retrofitted Before 12/15/83
- #9 All S/N'S at option of owner-recommended for floatplanes and any othe Maules operating in a potentially corrosive environment.