DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

3A23
Revision **25**
MAULE

Bee Dee M-4	M-4-220T	M-8-235
M-4	M-5-180C	MX-7-160
M-4C	M-5-200	MXT-7-160
M-4S	M-5-210C	MX-7-180A
M-4T	M-5-210TC	MXT-7-180A
M-4-180C	M-5-220C	MX-7-180B
M-4-180S	M-5-235C	MXT-7-420
M-4-180T	M-6-180	M-7-235B
M-4-210	M-6-235	M-7-235A
M-4-210C	M-7-235	M-7-235C
M-4-210S	MX-7-235	MX-7-180C
M-4-210T	MX-7-180	
M-4-220	MX-7-420	
M-4-220C	MXT-7-180	
M-4-220S	MT-7-235	

March 6, 1998

TYPE CERTIFICATE DATA SHEET NO. 3A23

This data sheet which is part of Type Certification No. 3A23 prescribes conditions and limit under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: MAULE AEROSPACE TECHNOLOGY, INC.
2099 GEORGIA HIGHWAY 133 SOUTH
MOULTRIE, GEORGIA 31768

I. Model **Bee Dee M-4**, 4 PCLM (Normal Category), Approved August 10, 1961

Model **M-4**, 4 PCLM (Normal Category), Approved February 21, 1963

Model **M-4C**, 4 PCLM (Normal Category), Approved October 7, 1965
(Same as Model M-4 except for modified right fuselage truss, larger rear doors to facilitate cargo loading, and other minor changes.)

Model **M-4S**, 4 PCLM (Normal Category), Approved March 15, 1966
(Same as Model M-4 except for minor changes.)

Model **M-4T**, 2 PCLM (Normal Category), Approved March 15, 1966
(Same as Model M-4C except no rear seats or rear door and other minor changes.)

Engine: Continental O-300-A or B

Fuel: 80/87 minimum grade aviation gasoline

Engine limits: For all operations, 2700 rpm (145 hp) (See NOTE 3)

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Propeller and propeller limits	McCauley 1A170-DM7460 Diameter: Not over 74 in., not under 73 in. No further reduction permitted. Static rpm at maximum permissible throttle setting: Not over 2200, not under 2100 No additional tolerance permitted. McCauley 1C172-MDM7647 to 7656 (eligible on s/n 24, 46-94, 1C-11C, 1S-3S, 1T-3T only) Diameter: Not over 76 in., not under 74.5 in. No further reduction permitted. Static rpm at maximum permissible throttle setting: Not over 2250, not under 2100 No additional tolerance permitted.
Airspeed limits (CAS)	Landplane: Never exceed 180 mph (156 knots) Maximum structural cruising 145 mph (126 knots) Maneuvering 125 mph (109 knots) Flaps extended 90 mph (78 knots) Skiplane: (Models M-4, M-4C) Fli-Lite 3000 MK IIIA Skis Never exceed 160 mph (139 knots) Maximum structural cruising 145 mph (126 knots) Maneuvering 125 mph (109 knots) Flaps extended 90 mph (78 knots)
C.G. range	Landplane: (+15.0) to (+23.0) at 2100 lbs. (+11.0) to (+23.0) at 1400 lbs. or less Skiplane: (Models M-4, M-4C) Fli-Lite 3000 MK IIIA Skis (+13.0) to (+23.0) at 1850 lbs. (+10.6) to (+23.0) at 1550 lbs. or less (Models M-4, M-4C) FluiDyne A2000A Skis (+15.0) to (+23.0) at 2100 lbs. (+11.0) to (+23.0) at 1400 lbs. or less
Empty weight C.G. range	None
Maximum weight	Landplane: 2100 lbs. Skiplane: Fli-Lite 3000 MK IIIA Skis: 1850 lbs. Federal A2000A Skis: 2100 lbs.
Number of seats	4 (2 at +18 to +21, 2 at +53)(Bee Dee M-4, M-4, M-4C, M-4S) 2 (+18 to +21) (M-4T)
Maximum baggage	100 lbs. (+72) (Bee Dee M-4, M-4) 100 lbs. (+20), 350 lbs. (+42)(M-4C, M-4S, M-4T) 250 lbs. (+70) (M-4C, M-4S)
Fuel capacity	43 gal. (42 gal. usable; two 21.5 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-37), 4 qt. minimum (See Note 1 for data on system oil.)

Control surface movements	Wing flaps	Down	1st Notch 15º ±3º 2nd Notch 35º ±3º
	Aileron	Up 20º ± 1	Down 20º ±1º
	Elevator	Up 25º ± 2º	Down 21º ±1º
	Elevator tab	Up 14º ± 1º	Down 25º ±1º (Bee Dee M-4, s/n 3-14, M-4, s/n 15-43, unless modified by Maule SL#9 dated 11/8/65)
		Up 8º + 2º/-1º	Down 25º ±1º (M-4, s/n 44 -94, unless modified by Maule SL#9 dated 11/8/65)
		Up 11º ± 3º	Down 25º ±1º (All M-4C, S, and T and M-4, s/n 3-94 modified by Maule SL#9 dated 11/8/65)
	Rudder	Right 21º ± 1º	Left 21º ±1º
	Rudder tab	Right 48º ± 4º	Left 48º ±4º

Serial numbers eligible	Model Bee Dee M-4, 3-14 Model M-4, 15 and up Model M-4C, 1C and up Model M-4S, 1S and up Model M-4T, 1T and up
Production basis	(No longer in production)

II. Model **M-4-210**, 4 PCLM (Normal Category), Approved September 24, 1964
Model **M-4-210C**, 4 PCLM (Normal Category), Approved October 7, 1965
Model **M-4-210S**, 4 PCLM (Normal Category), Approved March 15, 1966
Model **M-4-210T**, 2 PCLM (Normal Category), Approved March 15, 1966

(Same as M-4, M-4C, M-4S, and M-4T except for the installation of a Continental I0-360-A or D engine.)

Engine	Continental IO-360-A Continental IO-360-D for s/n 1086C and up	
Fuel	100/100LL minimum grade aviation gasoline	
Engine limits	I0-360-A:	Maximum continuous hp, rpm, in. Hg. alt. Critical altitude 195-2800-26.2-2250 ft. Sea level 195-2800-26.5 Takeoff hp (5 min.) 210-2800 F.T.
	I0-360-D:	F.T. all operations 210 hp - 2800 rpm
Propeller and propeller limits	McCauley constant speed model D2A3467/76C-2 (used on A engine) or or D2A34C67N/S76C-2 (used on A or D engine) Diameter: 74 in., no further reduction permitted. Pitch settings at 30 in. sta.: low 12.5º high 23º Spinner: Cessna 0552016-1 McCauley D-2771-1 assembly (used on A or D eng.) Governor (hydraulic): Woodward F210452 or B210680	

Airspeed limits (CAS)	Landplane:	Never exceed 180 mph (156 knots) Max. structural cruising 145 mph (126 knots) Maneuvering 125 mph (109 knots) Flaps extended 90 mph (78 knots)
	Skiplane:	(Models M-4-210, M-4-210C) Fli-Lite 3000 MK IIIA, Federal C3000H or C2200H Skis Never exceed 160 mph (139 knots) Max. structural cruising 145 mph (126 knots) Maneuvering 125 mph (109 knots) Flaps extended 90 mph (78 knots) Federal A2000A Never exceed 180 mph (156 knots) Max. structural cruising 145 mph (126 knots) Maneuvering 125 mph (109 knots) Flaps extended 90 mph (78 knots)
C.G. range	Landplane	For s/n 1001-1045, 1001C-1074C, 1079C, 1080C: (+15.0) to (+23.0) at 2100 lbs. (+11.0) to (+23.0) at 1400 lbs. or less For s/n 1075C, 1081C-1117C: (+16.0) to (+19.6) at 2300 lbs. (+15.0) to (+23.0) at 2100 lbs. (+11.0) to (+23.0) at 1400 lbs. or less NOTE: S/n 1001-1035 when modified per Maule SL#7 and SL#15 and s/n 1036-1045, 1001C-1074C, 1079C, 1080C when modified per Maule SL#15 dated 11/12/68 are eligible for the above C.G. range at 2300 lbs. GW.
	Skiplane:	(Models M-4-210, M-4-210C) Fli-Lite 3000 MK IIIA Skis (+13.0) to (+23.0) at 2100 lbs. (+10.6) to (+23.0) at 1550 lbs. or less Federal A2000A Skis (+15.0) to (+23.0) at 2100 lbs. (+11.0) to (+23.0) at 1400 lbs. or less (Models M-4-210, M-4-210C, M-4-210S, M-4-210T) Federal C2200H or C3000H Skis (+12.6) to (+18.4) at 2100 lbs. (+9.6) to (+18.4) at 1620 lbs. or less Straight line variation between points given.
	Floatplane:	EDO 248A2440, 248B2440 or Fleet 2500 Floats (+15.5) to (+20.5) at 2300 lbs. (+11.0) to (+20.5) at 1600 lbs. or less CAP 62-2000 Floats (+15.6) to (+20.5) at 2220 lbs. (+12.0) to (+20.5) at 1700 lbs. or less
Empty weight C.G. range	None	

Maximum weight	Landplane:	2300 lbs. or 2100 lbs. (Reference C.G. Range-landplane)	
	Skiplane:	2100 lbs.	
	Floatplane:	Fleet 2500, EDO 248A2440 or 248B2440 Floats: 2300 lbs. CAP 62-2000 Floats: 2220 lbs.	
Number of seats	4 (2 at +18 to +21, 2 at +53)(M-4-210, M-4-210C, M-4-210S) 2 (+18 to +21)(M-4-210T)		
Maximum baggage	100 lbs. (+72)(M-4-210) 100 lbs. (+20), 350 lbs. (+42)(M-4-210C, M-4-210S, M-4-210T) 250 lbs. (+70)(M-4-210C, M-4-210S)		
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) Optional wing auxiliary tanks - 23 gal. (23 gal. usable; two 11.5 gal. tanks in outerwings at +22.2) (Optional auxiliary tanks not approved in combination with skis or floats.)(See NOTE 1 for data on system fuel.)		
Oil capacity	10 qt. (-37), 7 qt. minimum (See NOTE 1 for data on system oil.)		
Control surface movement	Wing flaps	Down	1st Notch 15º ±3º 2nd Notch 35º ±3º
	Aileron	Up 20º ± 1º	Down 20º ±1º
	Elevator	Up 25º ± 2º	Down 21º ±1º
	Elevator tab	Up 11º ± 3º	Down 25º ±1º (M-4-210, s/n 1051 and up; all M-4-210C, -210S and -210T; and M-4-210 s/n 1001-1050 modified per Maule SL#9 dated 11/8/65)
		Up 8º +2º /-1º	Down 25º ±1º (M-4-210, s/n 1001-1050 unless modified per Maule SL#9 dated 11/8/65)
	Rudder	Right 21º ± 1º	Left 21º ±1º
	Rudder tab	Right 48º ± 4º	Left 48º ±4º
Serial numbers eligible	Model M-4-210, 1001 and up Model M-4-210C, 1001C and up Model M-4-210S, 1001S and up Model M-4-210T, 1001T and up		
Production basis	(No longer in production)		

III. Model **M-4-220**, 4 PCLM (Normal Category), Approved October 18, 1966
Model **M-4-220C**, 4 PCLM (Normal Category), Approved October 18, 1966
Model **M-4-220S**, 4 PCLM (Normal Category), Approved October 18, 1966
Model **M-4-220T**, 2 PCLM (Normal Category), Approved October 18, 1966

(Same as M-4, M-4C, M-4S and M-4T except for the installation of a Franklin 6A-350-C1 engine.)

Engine	Franklin 6A-350-C1
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	Takeoff (5 min.) 2800 rpm, F.T. (220 hp). For all other operations, 2800 rpm at 26.5 in. hg. (194 hp) (See NOTE 8)

Propeller and propeller limits	McCauley constant speed model 2A31C21/84S-8 or -6 Diameter: Not over 78 in.; not under 74 in. Pitch settings at 30 in. sta.: low 12.8º high 23.1º Spinner: Cessna 0552016-1 McCauley constant speed model 2A34C22-N/S84SF-6 or -8 Diameter: Not over 78 in.; not under 74.5 in. Pitch settings at 30 in. sta.: low 11.5º high 22º Spinner: McCauley D4101 assembly		
NOTE:	This installation also requires incorporation of Maule Drawings 5030F, rev. D, 5090B, rev. D, 5043F, rev. G. Governor: Woodward 210453 or 210660		
Airspeed limits (CAS)	Landplane:	Never exceed	180 mph (156 knots)
		Max. structural cruising	145 mph (126 knots)
		Maneuvering	125 mph (109 knots)
		Flaps extended	90 mph (78 knots)
	Skiplane:	Never exceed	160 mph (139 knots)
		Max. structural cruising	145 mph (126 knots)
		Maneuvering	125 mph (109 knots)
		Flaps extended	90 mph (78 knots)
	Floatplane:	Never exceed	164 mph (143 knots)
		Max. structural cruising	145 mph (126 knots)
		Maneuvering	125 mph (109 knots)
		Flaps extended	90 mph (78 knots)
C.G. range	Landplane:	(+15.6) to (+19.0) at 2300 lbs. (+14.5) to (+20.5) at 2100 lbs. (+11.1) to (+20.5) at 1500 lbs. or less Model M-4-220S, s/n 2001S only: (+15.0) to (+20.5) at 2100 lbs. (+11.0) to (+20.5) at 1400 lbs. or less Straight line variation between points given. Note: With fuel in optional wing auxiliary tanks, aft C.G. restricted to +18.0.	
	Skiplane:	Federal C2200H Skis (+12.6) to (+18.4) at 2100 lbs. (+9.6) to (+18.4) at 1620 lbs. or less Model M-4-220C only: Federal A2000A Skis (+14.5) to (+20.5) at 2100 lbs. (+11.1) to (+20.5) at 1500 lbs. or less Fli-Lite 3000 MK IIIA Skis (+14.5) to (+20.5) at 2300 lbs. (+11.1) to (+20.5) at 1500 lbs. or less	
	Floatplane:	EDO 248A2440, 248B2440 or Fleet 2500 Floats (+15.5) to (+20.5) at 2300 lbs. (+11.0) to (+20.5) at 1600 lbs. or less	
Empty weight C.G. range	None		
Maximum weight	Landplane:	2300 lbs. (M-4-220, M-4-220C, M-4-220S (s/n 2002S and up), M-4-220T) 2100 lbs. (s/n 2001S only)	
	Skiplane:	2100 lbs.	
	Floatplane:	2300 lbs.	

Number of seats	4 (2 at +18 to +21, 2 at +53)(M-4-220, M-4-220C, M-4-220S) 2 (+18 to +21)(M-4-220T)		
Maximum baggage	100 lbs. (+70)(M-4-220) 100 lbs. (+20), 350 lbs. (+42)(M-4-220C, M-4-220S, M-4-220T) 250 lbs. (+70)(M-4-220C, M-4-220S)		
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) Optional wing auxiliary tanks 23 gal. (23 gal. usable; two 11.5 gal. tanks in wings at +22.2) (Optional auxiliary tanks not approved in combination with skis or floats)(See NOTE 1 for data on system fuel.)		
Oil capacity	8.8 qt.(-37), 5.8 qt. minimum See NOTE 1 for data on system oil.)		
Control surface movements	Wing flaps	Down	1st Notch 15º ±3º 2nd Notch 35º ±3º
	Aileron	Up 20º ±1º	Down 20º ±1º
	Elevator	Up 25º ±2º	Down 21º ±1º
	Elevator tab	Up 11º ±3º	Down 25º ±1º
	Rudder	Right 21º ±1º	Left 21º ±1º
	Rudder tab	Right 48º ±4	Left 48º ±4º
Serial numbers eligible	Model M-4-220, 2001 and up Model M-4-220C, 2001C and up Model M-4-220S, 2001S and up Model M-4-220T, 2001T and up		
Production basis	(No longer in production)		

IV. Model **M-4-180C**, 4 PCLM (Normal Category), Approved October 20, 1970
Model **M-4-180S**, 4 PCLM (Normal Category), Approved October 20, 1970
Model **M-4-180T**, 2 PCLM (Normal Category), Approved October 20, 1970

(Same as M-4C, M-4S and M-4T except for the installation of Franklin 6A-335-B1A engine.)

Engine	Franklin 6A-335-B1A	
Fuel	80/87 minimum grade aviation gasoline	
Engine limits	For all operations, 2800 rpm (180 hp)	
Propeller and propeller limits	McCauley constant speed model 2A34C22-N/S84SF-6 Diameter: Not over 78 in.; not under 76.5 in. Pitch settings at 30 in. sta.: low 11.5º high 22º Spinner:	McCauley D4180 with C4181 bulkhead assembly, B3243 front support, B3410-16 or -32 shim.
	Governor:	Woodward 210453 or 210660
Airspeed limits (CAS)	Never exceed	180 mph (156 knots)
	Max. structural cruising	145 mph (126 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	90 mph (78 knots)
C.G. Range	(+15.6) to (+19.0) at 2300 lbs. (+14.5) to (+20.5) at 2100 lbs. (+11.1) to (+20.5) at 1500 lbs. or less Straight line variation between points given.	
Empty weight C.C. Range	None	

Maximum weight	2300 lbs.		
Number of seats	4 (2 at +18 to +21, 2 at +53) (M-4-180C, M-4-180S) 2 (+18 to +21) (M-4-180T)		
Maximum baggage	100 lbs. (+20), 350 lbs. (+42) (M-4-180C, M-4-180S, M-4-180T) 250 lbs. (+70) (M-4-180C, M-4-180S)		
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)		
Oil capacity	8.8 qt. (-37), 5.8 qt. minimum (See NOTE for data on system oil.)		
Control surface movements	Wing flaps	Down	1st Notch 15º ±3º 2nd Notch 35º ±3º
	Aileron	Up 20º ±1º	Down 20º ±1º
	Elevator	Up 25º ±2º	Down 21º ±1º
	Elevator tab	Up 11º ±3º	Down 25º ±1º
	Rudder	Right 21º ±1º	Left 21º ±1º
	Rudder tab	Right 48º ±4º	Left 48º ±4º
Serial numbers eligible	Model M-4-180C, 3001C and up Model M-4-180S, 3001S and up Model M-4-180T, 3001T and up		
Production basis	(No longer in production)		

V. Model **M-5-210C**, 4 PCLM (Normal Category), Approved December 28, 1973

(Same as M-4-210C except modified empennage, increased span flaps, smaller ailerons, modified C.G. range and other minor changes.)

Engine	Continental IO-360-D	
Fuel	100/100LL minimum grade aviation gasoline	
Engine limits	210 hp at 2800 rpm all operations	
Propeller and propeller limits	McCauley constant speed model D2A34C67N/S76C-2 Diameter: 74 in., no further reduction permitted. Pitch settings at 30 in. sta.: low 12.5º high 23º Spinner: McCauley spinner assembly D-2771-1 Governor (hydraulic): Woodward B210680 or F210452	
Airspeed limits (CAS)	Landplane:	(See NOTE 11)
	Floatplane:	(See NOTE 11)
	Skiplane: (See NOTE 11)	
C.G. range	Landplane:	(+16.0) to (+20.5) at 2300 lbs. (+15.0) to (+20.5) at 2100 lbs. (+12.0) to (+20.5) at 1600 lbs. or less All s/n modified per Maule SL#45 and SL#46: (+17.0) to (+20.5) at 2500 lbs. (+15.0) to (+20.5) at 2100 lbs. (+12.0) to (+20.5) at 1600 lbs. or less

C.G. Range (cont'd)	Floatplane:	EDO 248A2440 or 248B2440 Floats (+16.0) to (+18.0) at 2300 lbs. (+12.0) to (+18.0) at 1600 lbs. or less Pee Kay 2300 Floats (+15.5) to (+20.0) at 2300 lbs. (+14.0) to (+20.0) at 1800 lbs. or less Note: M-5-210C s/n 6001C-6014C, 6039C, 6043C-6045C requires compliance to Maule SL#28 when equipped with EDO 248A2440/B2440 floats.
	Skiplane:	Fluidyne C2200H Skis (+12.5) to (+20.0) at 2300 lbs. (+9.5) to (+20.0) at 1600 lbs. or less Fli-Lite 3000 MK IIIA Skis (+16.0) to (+20.0) at 2300 lbs. (+12.0) to (+20.0) at 1600 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None	
Maximum weight	Landplane, Skiplane and Floatplane: 2300 lbs. Landplane modified per SL#45 and SL#46: 2500 lbs.	
Number of seats	4 (2 at +20, 2 at +48.8)	
Maximum baggage	100 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)	
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +23.3) Optional wing auxiliary tanks 23 gal. (23 gal. usable; two 11.5 gal. tanks in wings at +22.2) (See NOTE 1 for data on system fuel.)	
Oil capacity	10 qt. (-37) 7 qt. minimum (See NOTE 1 for data on system oil.)	
Control surface movements	Wing flaps	Down 1st Notch 15º ±3º 2nd Notch 35º ±3º
	Modified per Maule SL#46	Down 1st Notch 20º ±3º 2nd Notch 40º ±3º
	Aileron	Up 20º ±1º Down 20º ±1º
	Elevator	Up 25º ±2º Down 21º ±1º
	Elevator tab	Up 12º ±4º Down 29º ±2º
	Rudder	Right 21º ±1º Left 21º ±1º
	Rudder tab	Right 48º ±4º Left 48º ±4º
Serial numbers eligible	Model M-5-210C, 6001C and up (See NOTE 13 for float installation requirements.)	
Production basis	(No longer in production)	

VI. Model **M-5-220C**, 4 PCLM (Normal Category), Approved December 28, 1973

(Same as M-4-220C except modified empennage, increased span flaps, smaller ailerons, and other minor changes.)

Engine	Franklin 6A-350-C1
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	220 hp at 2800 rpm, all operations

Propeller and propeller limits	McCauley constant speed model 2A34C22-N/S84SF-6 or -8 Diameter: Not over 78 in., not under 74.5 in. Pitch settings at 30 in. sta.: low 11.5º high 22º Spinner: McCauley D4180 with C4181 bulkhead assembly, B3243 front support, B3410-16 or -32 shim Governor: Woodward 210453 or 210660	
Airspeed limits (CAS)	Landplane: (See NOTE 11) Floatplane: (See NOTE 11) Skiplane: (See NOTE 11)	
C.G. range	Landplane:	(+16.0) to (+20.5) at 2300 lbs. (+15.0) to (+20.5) at 2100 lbs. (+12.0) to (+20.5) at 1600 lbs. or less All s/n modified per Maule SL#48 and SL#51: (+17.0) to (+20.5) at 2500 lbs. (+15.0) to (+20.5) at 2100 lbs. (+12.0) to (+20.5) at 1600 lbs. or less
	Floatplane:	EDO 248A2440 or 248B2440 Floats (+16.0) to (+18.0) at 2300 lbs. (+12.0) to (+18.0) at 1600 lbs. or less Pee Kay 2300 Floats (+15.5) to (+20.0) at 2300 lbs. (+14.0) to (+20.0) at 1800 lbs. or less NOTE: M-5-220C, s/n 5002C, 5019C, 5020C, 5022C-5024C requires compliance to Maule SL#28 when equipped with EDO 248A2440/B2440 floats.
	Skiplane:	FluiDyne C2200H Skis (+12.5) to (+20.0) at 2300 lbs. (+9.5) to (+20.0) at 1600 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None	
Maximum weight	Landplane, Skiplane and Floatplane: 2300 lbs. Landplane modified per SL#48 and SL#51: 2500 lbs.	
Number of seats	4 (2 at 15.1 to +18.1, 2 at 48.8)	
Maximum baggage	100 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)	
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +23.3) Optional wing auxiliary tanks 23 gal. (23 gal. usable; two 11.5 gal. tanks in wings at +22.2) (See NOTE 1 for data on system fuel.)	
Oil capacity	8.8 qt. (-37) 5.8 qt. minimum (See NOTE 1 for data on system oil.)	
Control surface movements	Wing flaps	Down 1st Notch 15º ±3º 2nd Notch 35º ±3º
	Modified per Maule SL#48	Down 1st Notch 20º ±3º 2nd Notch 40º ±3º
	Aileron	Up 20º ±1º Down 20º ±1º
	Elevator	Up 25º ±2º Down 21º ±1º
	Elevator tab	Up 12º ±4º Down 29º ±2º
	Rudder	Right 21º ±1º Left 21º ±1º
	Rudder tab	Right 48º ±4º Left 48º ±4º
Serial numbers eligible	Model M-5-220C, 5001C and up. (See NOTE 13 for float installation requirement.)	
Production basis	(No longer in production)	

VII. Model **M-5-235C**, 4 PCLM (Normal Category), Approved April 6, 1976

(Same as M-5-220C except for nacelle, engine, propeller and electrical system.)

Engine	Lycoming	O-540-J1A5D, O-540-J3A5, IO-540-W1A5D, IO-540-W1A5, or O-540-B4B5
Fuel	100/100LL minimum grade aviation gasoline	
Engine limits	235 hp at 2400 rpm, all operations (O-540-J/IO-540-W) 235 hp at 2575 rpm, all operations (O-540-B)	
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F8468A-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum air pressure.) Diameter:-3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Pitch settings at 30" sta.: low 16º ±1º high 30º ±1º With O-540-B4B5 engine: low 14.2º ±0.1º high 30º ±1º Floatplanes: -3R (EDO 2440's @ 2750 lbs. GW or EDO amphibs) -6R: Do not exceed 23 in. M.P. below 2050 rpm. Use with O-540-J or IO-540-W only: McCauley constant speed 3-blade model B3D32C414-C/G-82NDA-2 (Use with 7:00 tires or larger) McCauley constant speed 2-blade model B2D37C224-B/G-90RA-9 (Use with 7:00 tires or larger/26 psi minimum air pressure.) Pitch settings at 30" sta.: -2 (80"): low 15.0º ±0.2º high 30.0º ±0.5º -9 (81"): low 15.8º ±0.2º high 24.6º ±0.5º Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCauley spinner assembly D-6240 (use with McCauley 3-blade propeller only) McCauley spinner assembly D-6195 (use with McCauley 2-blade propeller only) Governor: Woodward F210681* or B210761 (O-540-J/IO-540-W only); E210761 (O-540-B only)(*Refer to AD#81-25-01 for eligible serial numbers) McCauley C290D3X/T30 (O-540-J/IO-540-W only) C290D3X/T31 (O-540-B only)	
Airspeed limits (CAS)	Landplane:	(See NOTE 11)
	Floatplane:	(See NOTE 11)
	Skiplane:	(See NOTE 11)
C.G. range	Landplane	S/n 7001C-7026C, 7028C, 7030C-7032C, 7037C (+16.0) to (+20.5) at 2300 lbs. (+12.0) to (+20.5) at 1600 lbs. or less
	or -	S/n 7001C-7026C, 7028C, 7030C-7032C, 7037C with expanded C.G. limits per Maule SL#36 (+12.5) to (+20.5) at 2300 lbs. (+10.5) to (+20.5) at 1700 lbs. or less
	or -	S/n 7001C-7320C, 7322C-7346C, 7348C, 7349C modified per Maule SL#43 (+13.2) to (+20.5) at 2500 lbs. (+10.5) to (+20.5) at 1700 lbs. or less

C.G. range — Landplane (cont'd)

or - S/n 7001C-7320C, 7322C-7346C, 7348C, 7349C
modified per with Maule SL#44
(+12.5) to (+20.5) at 2300 lbs.
(+11.7) to (+20.5) at 1700 lbs. or less

or - S/n 7001C-7320C, 7322C-7346C, 7348C, 7349C
modified per Maule SL#43 and SL#44 and s/n
7321C, 7347C, 7351C, 7363C, 7369C and up
(+13.2) to (+20.5) at 2500 lbs.
(+11.7) to (+20.5) at 1700 lbs. or less
Straight line variation between points given.

Floatplane: EDO 248A2440, 248B2440 or Aqua 2400 Floats
(+14.3) to (+20.0) at 2530 lbs.
(+13.3) to (+20.0) at 2100 lbs. or less
Pee Kay 2300 Floats
(+14.3) to (+20.0) at 2500 lbs.
(+13.3) to (+20.0) at 2100 lbs. or less
EDO 248B2440 or 797-2500 amphibious Floats
(Floatplanes modified per Maule drawing 9143A
(2440's) or 9057A (amphibs))
(+14.0) to (+19.0) at 2750 lbs.
(+10.5) to (+19.0) at 1600 lbs. or less

Skiplane: FluiDyne C2200H, C3000H, C3000M or
Fli-Lite 3000 MK IIIA Skis
(+12.5) to (+20.0) at 2300 lbs.
(+9.5) to (+20.0) at 1600 lbs. or less
FluiDyne A2500A Skis
(+12.9) to (+20.5) at 2300 lbs.
(+11.7) to (+20.5) at 1700 lbs. or less
Fli-Lite MK IIIA Skis
(Skiplanes modified per Maule drawing 9081A)
(+13.2) to (+20.0) at 2500 lbs.
(+11.7) to (+20.0) at 1700 lbs. or less
FluiDyne C3000M Skis
(Skiplanes modified per Maule drawing 9158A)
(+13.2) to (+20.0) at 2500 lbs.
(+10.7) to (+20.0) at 1700 lbs. or less
Straight line variation between points given.

Empty weight C.G. range: None

Maximum weight:
Landplane: 2300 lbs.
Floatplane: 2530 lbs. (EDO 2440 only)
Skiplane: 2300 lbs.
Landplanes modified per Maule SL#43 and s/n 7321C, 7347C, 7350C and up: 2500 lbs.
Floatplanes modified per Maule drawing 9143A (EDO 2440) or 9057A (EDO amphibs): 2750 lbs.
Skiplanes modified per Maule drawing 9081A (Fli-Lites) or 9158A (C3000M): 2500 lbs.

Number of seats: 4 (2 at +20, 2 at +48.8)

Maximum baggage: 170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)

Fuel capacity: 43 gal. (40. gal. usable; two 21.5 gal. tanks in wings at +24)

Optional wing auxiliary tanks 23 gal. (23 gal. usable; two 11.5 gal. tanks in wings at +24)
(See NOTE 1 for data on system fuel.)

Oil capacity	IO-540: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum (See NOTE 1 for data on system oil.)		
Control surface movements	Wing flaps	(s/n 7001C-7320C, 7322C-7346C, 7348C-7350C, 7352C-7362C, 7364C-7368C):	
		Down	1st Notch 15º ±3º 2nd Notch 35º ±3º
		(s/n 7321C, 7347C, 7351C, 7363C, 7369C and up and airplanes modified per Maule SL#44):	
		Down	1st Notch 20º ±3º 2nd Notch 40º ±3º
	Aileron	Up 20º ±1º	Down 20º ±1º
	Elevator	Up 25º ±2º	Down 21º ±1º
	Elevator tab	Up 12º ±4º	Down 29º ±2º
	Elevator tab w/piano hinge	Up 12º ±2º	Down 38º ±2º
	Rudder	Right 21º ±1º	Left 21º ±1º
	Rudder tab	Right 48º ±4º	Left 48º ±4º
Serial number eligible	Model M-5-235C, 7001C and up (Note: Letter 'A' preceding serial number denotes installation of Lycoming IO-540-W1A5D fuel-injected engine and applies only to the following s/n A7354C, A7355C, A7358C, A7360C, A7361C, A7366C and A7367C.)		
Production basis	(No longer in production)		

VIII. Model **M-5-180C**, 4 PCLM (Normal Category), Approved April 19, 1979

(Same as M-5-235C except for nacelle, engine and propeller.)

Engine	Lycoming O-360-C1F	
Fuel	100/100LL minimum grade aviation gasoline	
Engine limits	180 hp at 2700 rpm, all operations	
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F7666A Diameter:Not over 76 in; not under 72 in. Pitch settings at 30 in. sta.: low 12º high 27.8º to 29.8º Avoid continuous operation between 2000 and 2250 rpm. Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681 McCauley C290D3X/T29	
Airspeed limits (CAS)	Landplane:	(See NOTE 11)
C.G. range	Landplane:	(+16.7) to (+20.5) at 2300 lbs. (+12.6) to (+20.5) at 1600 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None	
Maximum weight	Landplane:	2300 lbs.
Number of seats	4 (2 at +20, 2 at +48.8)	
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)	

Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) Optional wing auxiliary tanks 23 gal. (23 gal. usable; two 11.5 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)

Control surface movements

Wing flaps (s/n 8001C-8022C):
Down 1st Notch 15º ±3º
2nd Notch 35º ±3º

(s/n 8023C and up and airplanes modified per Maule SL#49):
Down 1st Notch 20º ±3º
2nd Notch 40º ±3º

Aileron	Up 20º ±1º	Down 20º ±1º
Elevator	Up 25º ±2º	Down 21º ±1º
Elevator tab	Up 12º ±4º	Down 29º ±2º
w/piano hinge	Up 12º ±2º	Down 38º ±2º
Rudder	Right 21º ±1º	Left 21º ±1º
Rudder tab	Right 48º ±4º	Left 48º ±4º

Serial number eligible	Model M-5-180C, 8001C-8014C, 8016C-8019C, 8021C, 8023C -8042C, 8044C-8064C, 8068C-8094C and up
Production basis	(No longer in production)

IX. Model **M-5-210TC**, 4 PCLM (Normal Category), Approved February 4, 1980

(Same as M-5-180C except for nacelle, engine and propeller.)

Engine	Lycoming TO-360-F1A6D, Carburetor parts listing No. I0-5258
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	210 hp at 2575 rpm at 42.0 in. hg. MP, all operations
Propeller and propeller limits	Hartzell constant speed model HC-E2YR-1BF/F8467-7R Diameter: Not over 77 in.; not under 76.5 in. Pitch settings at 30 in. sta.: low 15º ±0.1º high 30º to 33º Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward C210681
Airspeed limits (CAS)	Landplane: (See NOTE 11) Skiplane: (See NOTE 11)
C.G. range	Landplane: (+15.0) to (+20.5) at 2300 lbs. (+12.0) to (+20.5) at 1700 lbs. or less Skiplane: Fli-Lite 3000 MK IIIA Skis (+12.5) to (+20.0) at 2300 lbs. (+9.5) to (+20.0) at 1600 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	Landplane and Skiplane: 2300 lbs.
Number of seats	4 (2 at +20, 2 at +48.8)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)

Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) Optional wing auxiliary tanks 23 gal. (23 gal. usable; two 11.5 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)
Maximum operating` altitude	20,000 feet

Control surface movements

Wing flaps	(s/n 9001C-9010C):	
	Down	1st Notch 15º ±3º
		2nd Notch 35º ±3º
	(s/n 9011C and up and airplanes modified per Maule SL#47):	
	Down	1st Notch 20º ±3º
		2nd Notch 40º ±3º
Aileron	Up 20º ±1º	Down 20º ±1º
Elevator	Up 25º ±2º	Down 21º ±1º
Elevator tab	Up 12º ±4º	Down 29º ±2º
Rudder	Right 21º ±1º	Left 21º ±1º
Rudder tab	Right 48º ±4º	Left 48º ±4º

Serial numbers eligible	Model M-5-210TC, 9001C and up
Production basis	(No longer in production)

X. Model **M-6-235**, 4*PCLM (Normal Category), Approved June 25, 1981

(Same as M-5-235C except for wings, flaps, ailerons and flap control mechanism.)(*Optional 5th seat s/n's 7474C and up.)

Engine	Lycoming O-540-J1A5D, O-540-J3A5, IO-540-W1A5D, IO-540-W1A5 or O-540-B4B5
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	235 hp at 2400 rpm, all operations (O-540-J/O-540-W) 235 hp at 2575 rpm, all operations (O-540-B)
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F8468A-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum air pressure.) Diameter:-3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Pitch settings at 30 in. sta.: low 16º ±1º high 30º ±1º With O-540-B4B5 engine: low 14.2º ±0.1º high 30º ±1º Airplane with O-540-B4B5 engine and Floatplane: -3R -6R: Do not exceed 23 in. M.P. below 2050 rpm. Use with O-540-J or IO-540-W only: McCauley constant speed 3-blade model B3D32C414-C/G-82NDA-2 or -4 (-2 use with 7:00 tires or larger) McCauley constant speed 2-blade model B2D37C224-B/G-90RA-9 (Use with 7:00 tires or larger/26 psi minimum air pressure.) Pitch settings at 30" sta.: -2 (80"): low 15.0º ±0.2º high 30.0º ±0.5º -4 (78"): low 15.7º ±0.2º high 30.0º ±0.2º -9 (81"): low 15.8º ±0.2º high 24.6º ±0.5º Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCauley spinner assembly D-6240 (use with McCauley 3-blade propeller only) McCauley spinner assembly D-6195 (use with McCauley 2-blade propeller only)

	Governor:	Woodward F210681 or B210761 (O-540-J/IO-540-W only); E210761 (O-540-B only) McCauley C290D3X/T30 (O-540-J/IO-540-W only) C290D3X/T31 (O-540-B only)
Airspeed limits (CAS)	Landplane:	(See NOTE 11)
	Floatplane:	(See NOTE 11)
	Skiplane:	(See NOTE 11)
C.G. range	Landplane:	(+15.0) to (+20.5) at 2500 lbs. (+11.0) to (+20.5) at 1700 lbs. or less
	Floatplane:	EDO 797-2500 amphibious* or 248B2440 Floats (+14.0) to (+19.0) at 2750 lbs. (+10.5) to (+19.0) at 1600 lbs. or less Aqua 2400 Floats (+14.8) to (+19.0) at 2530 lbs. (+10.5) to (+19.0) at 1600 lbs. or less
	Skiplane:	FluiDyne A2500A Skis* (+14.3) to (+20.5) at 2300 lbs. (+11.0) to (+20.5) at 1700 lbs. or less Fli-Lite 3000 MK IIIA Skis* (+15.0) to (+20.5) at 2500 lbs. (+11.0) to (+20.5) at 1700 lbs. or less FluiDyne C2200H, C3000H/AH/M wheel Skis** (+15.0) to (+20.0) at 2500 lbs. (+10.0) to (+20.0) at 1700 lbs. or less Straight line variation between points given. *Not applicable s/n 7474C and up **Not applicable s/n 7466C, 7468C-7473C
Empty weight C.G. range	None	
Maximum weight	Landplane:	2500 lbs.
	Floatplane:	EDO 248B2440 or 797-2500: 2750 lbs. Aqua 2400: 2530 lbs.
	Skiplane:	Fli-Lite 3000/C2200H/C3000H/AH/M: 2500 lbs. FluiDyne A2500A: 2300 lbs.
Number of seats	4 (2 at +20, 2 at +56) S/n 7474C and up: Optional: 5 (2 at +20.0, 2 at +53, 1 at +78)	
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)	
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) Optional wing auxiliary tanks 26 gal. (26 gal. usable; two 13 gal. tanks in wings at +24) S/n 7473C and up: Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)	

Oil capacity	IO-540-: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers	Model M-6-235, s/n 7249C, 7356C, 7379C-7444C, 7446C-7450C, 7452C-7459C, 7461C-7466C, 7468C, 7469C, 7471C-7475C, 7488C-7514C, 7516C-7519C and up
Production basis	Production Certificate No. 11S0

XI. Model **M-6-180**, 4 PCLM (Normal Category), Approved September 15, 1982

(Same as M-6-235, s/n 7249C-7472C, except for nacelle, engine and propeller.)

Engine	Lycoming O-360-C1F
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	180 hp at 2700 rpm, all operations
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F7666A Diameter:Not over 76 in; not under 72 in. Pitch settings at 30 in. sta.: low 12º high 27.8º to 29.8º Avoid continuous operation between 2000 and 2250 rpm. Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681
Airspeed limits (CAS)	Landplane: (See NOTE 11)
C.G. range	Landplane: (+16.7) to (+20.5) at 2400 lbs. (+13.6) to (+20.5) at 1600 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	Landplane: 2400 lbs.
Number of seats	4 (2 at +20, 2 at +56)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) Optional wing auxiliary tanks 26 gal. (26 gal. usable; two 13 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-6-180, s/n 8020C, 8065C-8067C and up
Production basis	Production Certificate No. 11S0

XII. Model **M-5-200**, 4 PCLM (Normal Category), Approved October 29, 1982

(Same as M-5-235C except for nacelle, engine and propeller.)

Engine	Lycoming IO-360-J1A6D
Fuel	100/100LL minimum grade aviation gasoline

Engine limits	200 hp at 2700 rpm, all operations		
Propeller and propeller limits	Hartzell constant speed model HC-E2YR-1BF/F8467-7R Diameter:Not over 77 in.; not under 76.5 in. Pitch settings at 30 in. sta.: low 12º high 30º to 33º Do not exceed 24 in. manifold pressure below 2350 rpm. Spinner: Hartzell spinner assembly A2298-2P Governor: Woodward K210681		
Airspeed limits (CAS)	Landplane:	(See Note 11)	
C.G. range	Landplane:	(+16.7) to (+20.5) at 2500 lbs. (+13.2) to (+20.5) at 1700 lbs. or less Straight line variation between points given.	
Empty weight C.G. range	None		
Maximum weight	2500 lbs.		
Number of seats	4 (2 at +20, 2 at +56)		
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)		
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) Optional wing auxiliary tanks 23 gal. (23 gal. usable; two 11.5 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)		
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)		
Control surface movements	Wing flaps	Down	1st Notch 20º ±3º 2nd Notch 40º ±3º
	Aileron	Up 20º ±1º	Down 20º ±1º
	Elevator	Up 25º ±2º	Down 21º ±1º
	Elevator tab	Up 8º to 16º	Down 29º ±2º
	Rudder	Right 21º ±1º	Left 21º ±1º
	Rudder tab	Right 48º ±4º	Left 48º ±4º
Serial numbers eligible	Model M-5-200, s/n 8015C, 8022C		
Production basis	(No longer in production.)		

XIII. Model **M-7-235**, 5 PCLM (Normal Category) Approved November 9, 1983

(Same as M-6-235 except for fuselage, wings, flaps, ailerons, and rudder.)

Engine	Lycoming	O-540-J1A5D, O-540-J3A5, IO-540-W1A5A, IO-540-W1A5 or O-540-B4B5
Fuel	100/100LL minimum grade aviation gasoline	
Engine limits	235 hp at 2400 rpm, all operations (O-540-J/IO-540-W) 235 hp at 2575 rpm, all operations (O-540-B)	

Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F8468A-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum air pressure.) Diameter:-3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Pitch settings at 30" sta.: low 16º ±1º high 30º ±1º With O-540-B4B5 engine: low 14.2º ±0.1º high 30º ±1º Floatplane: -3R -6R: Do not exceed 23 in. M.P. below 2050 rpm. Use with O-540-J or IO-540-W only: McCauley constant speed 3-blade model B3D32C414-C/G-82NDA-2 or -4 (-2 use with 7:00 tires or larger) McCauley constant speed 2-blade model B2D37C224-B/G-90RA-9 (Use with 7:00 tires or larger/26 psi minimum air pressure.) Pitch settings at 30" sta.: -2 (80"): low 15.0º ±0.2º high 30.0º ±0.5º -4 (78"): low 15.7º ±0.2º high 30.0º ±0.2º -9 (81"): low 15.8º ±0.2º high 24.6º ±0.5º Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCauley spinner assembly D-6240 (use with McCauley 3-blade propeller only) McCauley spinner assembly D-6195 (use with McCauley 2-blade propeller only) Governor: Woodward F210681 or B210761 (O-540-J/IO-540-W only); E210761 (O-540-B only) McCauley C290D3X/T30 (O-540-J/IO-540-W only), C290D3X/T31 (O-540-B only)
Airspeed limits (CAS)	Landplane: (See Note 11) Floatplane: (See Note 11)
C.G. range	Landplane: (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less Floatplane: EDO 797-2500 amphibious or 248B2440: (+14.0) to (+19.0) at 2750 lbs. (+10.5) to (+19.0) at 1600 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+72)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable;two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	IO-540: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-7-235, s/n 4001C and up
Production basis	Production Certificate No. 11S0

XIV. Model **MX-7-235**, 4/5 PCLM (Normal Category), Approved October 18, 1984

(Same as M-6-235 except for wings, flaps, aileron and wing tip.)

Engine	Lycoming O-540-J1A5D, O-540-J35D, IO-540-W1A5D, IO-540-W1A5 or O-540-B4B5
Fuel	00/100LL minimum grade aviation gasoline
Engine limits	235 hp at 2400 rpm, all operations (O-540-J/IO-540-W) 235 hp at 2575 rpm, all operations (O-540-B)
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F8468A-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum air pressure.) Diameter:-3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Pitch settings at 30" sta.: low 16º ±1º high 30º ±1º With O-540-B4B5 engine: low 14.2º ±0.1º high 30º ±1º Airplane with O-540-B4B5 engine and Floatplane: -3R -6R: Do not exceed 23 in. M.P. below 2050 rpm. Use with O-540-J or IO-540-W only: McCauley constant speed 3-blade model B3D32C414-C/G-82NDA-2 or -4 (-2 use with 7:00 tires or larger) McCauley constant speed 2-blade model B2D37C224-B/G-90RA-9 (Use with 7:00 tires or larger/26 psi minimum air pressure.) Pitch settings at 30" sta.: -2 (80"): low 15.0º ±0.2º high 30.0º ±0.5º -4 (78"): low 15.7º ±0.2º high 30.0º ±0.2º -9 (81"): low 15.8º ±0.2º high 24.6º ±0.5º Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCauley spinner assembly D-6240 (use with McCauley 3-blade propeller only) McCauley spinner assembly D-6195 (use with McCauley 2-blade propeller only) Governor: Woodward F210681 or B210761 (O-540-J/IO-540-W only); E210761 (O-540-B only) McCauley C290D3X/T30 (O-540-J/IO-540-W only), C290D3X/T31 (O-540-B only)
Airspeed limits (CAS)	Landplane: (See NOTE 11) Floatplane: (See NOTE 11) Skiplane: FluiDyne C-3000H (See NOTE 11)
C.G. range	Landplane: (+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1700 lbs. or less Floatplane: EDO 797-2500 amphibious or 248B2440: (+14.3) to (+19.0) at 2750 lbs. (+12.3) to (+19.0) at 2100 lbs. or less Straight line variation between points given. Skiplane: FluiDyne C3000H: (+15.0) to (+19.0) at 2500 lbs. (+11.0) to (+19.0) at 1840 lbs. or less
Empty weight C.G. range	None
Maximum weight	Landplane: 2500 lbs. Floatplane: 2750 lbs.
Number of seats	4 (2 at +20, 2 at +56) Optional: 5 (2 at +20, 2 at +53, 1 at +78)

Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	IO-540: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-235, s/n 10001C and up
Production basis	Production Certificate No. 11S0

XV. Model **MX-7-180**, 4/5 PCLM (Normal Category), Approved December 18, 1984

(Same as MX-7-235 except for nacelle, engine and propeller.)

Engine	Lycoming O-360-C1F		
Fuel	100/100LL minimum grade aviation gasoline		
Engine limits	180 hp at 2700 rpm, all operations		
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F7666A Diameter: Not over 76 in., not under 72 in. Pitch settings at 30" sta.: low 12º high 27.8º to 29.8º Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681 McCauley C290D3X/T29		
Airspeed limits (IAS)	Landplane:	Never exceed Max. structural cruising Maneuvering Flaps extended	185 mph (161 knots) 149 mph (129 knots) 129 mph (112 knots) 98 mph (85 knots)
G.C. range	Landplane:	(+16.7) to (+20.5) at 2500 lbs. (+13.6) to (+20.5) at 1600 lbs. or less Straight line variation between points given.	
Empty weight C.G. range	None		
Maximum weight	2500 lbs.		
Number of seats	4 (2 at +20, 2 at +56) Optional: 5 (2 at +20, 2 at +53, 1 at +78)		
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)		

Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-180, s/n 11001C and up
Production basis	Production Certificate No. 11S0

XVI. Model **MX-7-420**, 4/5 PCLM (Normal Category) Approved June 1, 1989

(Same as MX-7-235 except for nacelle, engine, propeller and rudder.)

Engine		Allison Gas Turbine 250-B17C
Fuel	Primary:	Mil-T-5624L, grade JP-4 and JP-5, Mil-T-83133A, grade JP-8, ASTM-D-1655, Jet A, A1 or B, JP-1 Fuel conforming to ASTM-D-1655, Jet A, Artic Diesel Fuel DF-A (VV0F800B) conforming to ASTM-D-1655, Jet A or A1 Diesel #1 fuel conforming to ASTM-D-1655, Jet A
	Emergency:	Mil-G-5572, all grades (aircraft boost pump on; maximum of 6 hours operation per overhaul period of turbine through an engine operating range of idle to 90% maximum SHP)
	Cold Weather:	To assure consistent starts below 4ºC (40ºF), the following fuels may be necessary: MIL-T-5624, grade JP-4 ASTM-D-1655, Jet B AVGAS/Jet A, Jet A1 or Jet JP-5 mixture. (Refer to Cold Weather Fuels, para 2-48, for mixing/use of cold weather fuel in Allison Manual 11W2.)
Engine limits		369 hp - 90 psi torque, at 2030 rpm continuous
Propeller and propeller limits		Hartzell, constant speed, full-feathering beta, model HC-B3TF-7A/T10173F-21R Diameter:80.5 - 78 inches Pitch settings at 30" sta.: Reverse pitch -15º ±5º feather 81.1º ±5º Spinner: Hartzell spinner assembly A3640P
Maximum operating altitude		20,000 feet
Airspeed limits (CAS)	Maximum operating	151 mph (131 knots)
	Maximum structural cruising	145 mph (126 knots)
	Manuevering	121 mph (105 knots)
	Flaps extended	94 mph (82 knots)
C.G. range		(+15.0) to (+20.0) at 2500 lbs. (+12.0) to (+20.0) at 1700 lbs. or less Straight line variation between points given.
Empty weight C.G. range		None
Maximum weight		2500 lbs.
Number of seats		4 (2 at +20, 2 at +56) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage		170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)

Fuel capacity	43 gal. (40 usable; two 21.5 gal. tanks in wings at +24-considered one tank) or 47.6 gal. (43 gal. usable, two 23.8 gal. tanks in wings at +24 - considered one tank) Optional wing auxiliary tanks, 30 gal. (30 usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 usable; two 21 gal. tanks in wings at + 24). (See NOTE 1 for data on system fuel.)
Oil capacity	10 qt. (-22.5), 9 qts. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-420, s/n 13001C and up
Production basis	Production Certificate No. 11S0

XVII. Model **MXT-7-180**, 4/5 PCLM (Normal Category), Approved November 9, 1990

(Same as M-6-235, s/n 7474C and up, except for nacelle, engine, propeller, ailerons, flaps and landing gear (aluminum spring mains with nosewheel in lieu of tailwheel).)

Engine	Lycoming O-360-C1F		
Fuel	100/100LL minimum grade aviation gasoline		
Engine limits	180 hp at 2700 rpm, all operations		
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/7666A Diameter: Not over 76 in., not under 72 in. Pitch settings at 30" sta.: low 12º high 27.8º to 29.8º Avoid continuous operation between 2000 and 2250 rpm. McCauley constant speed 3-blade model B3D32C414-C/G-82NDA-8 Diameter: 74 in. Pitch settings at 30" sta: low 10.6º ±0.2º high 27.5º ±0.5º Avoid continuous operation below 10 inches HG between 1900 and 2300 rpm. Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCauley spinner assembly D-6240 (use with McCauley propeller only) Governor: Woodward H210681 McCauley C290D3X/T29		
Airspeed limits (IAS)	Landplane:	Never exceed	182 mph (158 knots)
		Maximum structural cruising	147 mph (128 knots)
		Maneuvering	129 mph (112 knots)
		Flaps extended	95 mph (83 knots)
C.G. range	Landplane:	(+16.7) to (+20.5) at 2500 lbs. (+13.6) to (+20.5) at 1600 lbs. or less Straight line variation between points given.	
Empty weight C.G. range	None		
Maximum weight	Landplane: 2500 lbs.		

Number of seats	4 (2 at +20, 2 at +56) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MXT-7-180, s/n 14000C and up
Production basis	Production Certificate No. 11S0

XVIII.Model **MT-7-235**, 5 PCLM (Normal Category), Approved March 20, 1992

(Same as MXT-7-180 except for nacelle, engine, propeller and M-7 fuselage.)

Engine	Lycoming IO-540-W1A5D, IO-540-W1A5		
Fuel	100/100LL minimum grade aviation gasoline		
Engine limits	235 hp at 2400 rpm, full throttle continuous		
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/8468A-6R or -3R Diameter:-3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Pitch settings at 30" sta.: low 16º ±1º high 29º to 31º -6R: Do not exceed 23 in. M.P. below 2050 rpm. McCauley constant speed model B3D32C414-C/G-82NDA-4 or -2 McCauley constant speed model B2D37C-224-B/G-90RA-9 Pitch settings at 30" sta: -2 (80"): low 15.0º ±0.2º high 30.0º ±0.5º -4 (78"): low 15.7º ±0.2º high 30.0º ±0.2º -9 (81"): low 15.8º ±0.2º high 24.6º ±0.5º Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell 2 blade propeller only) McCauley spinner assembly D-6240 (use with McCauley 3 blade propeller only) McCauley spinner assembly D-6195 (use with McCauley 2 blade propeller only) Governor: Woodward F210681 or B210761 McCauley C290D3X/T30		
Airspeed limits (IAS)	Landplane:	Never exceed	182 mph (158 knots)
		Maximum structural cruising	147 mph (128 knots)
		Maneuvering	129 mph (112 knots)
		Flaps extended	95 mph (83 knots)

C.G. range	Landplane:	(+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1800 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None	
Maximum weight	Landplane: 2500 lbs.	
Number of seats	5 (2 at +20, 2 at +53, 1 at +83)	
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+72)	
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)	
Oil capacity	8 qt. (-34), 5 qt. minimum (See NOTE 1 for data on system oil.)	
Control surface movements	(See NOTE 12)	
Serial numbers eligible	Model MT-7-235, s/n 18001C and up	
Production basis	Production Certificate No. 11S0	

XIX. Model **M-8-235**, 4/5 PCLM (Normal Category), Approved August 10, 1992

(Same as M-6-235, s/n 7474C & up, except for flaps, ailerons and landing gear (aluminum spring mains.)

Engine	Lycoming O-540-J1A5D, O-540-J3A5, IO-540-W1A5D, O-540-W1A5 or O-540-B4B5
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	235 hp at 2400 rpm, all operations (O-540-J/IO-540-W) 235 hp at 2575 rpm, all operations (O-540-B)
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F8468-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum air pressure.)

Diameter:-3R: Not over 81 in.; not under 77 in.
-6R: Not over 78 in.; not under 77 in.
Pitch settings at 30" sta.: low 16º ±1º high 30º ±1º
With O-540-B4B5 engine: low 14.2º ±0.1º high 30º ±1º
Airplane with O-540-B4B5 engine: -3R
-6R: Do not exceed 23 in. M.P. below 2050 rpm.
Use with O-540-J or IO-540-W only:
McCauley constant speed 3-blade model B3D32C414-C/G-82NDA-2
or -4 (-2 use with 7:00 tires or larger)
McCauley constant speed 2-blade model B2D37C224-B/G-90RA-9
(Use with 7:00 tires or larger/26 psi minimum air pressure.)
Pitch settings at 30" sta.:

-2 (80"):	low 15.0 +0.2	high 30.0 +0.5
-4 (78"):	low 15.7 +0.2	high 30.0 +0.2
-9 (81"):	low 15.8 +0.2	high 24.6 +0.5

Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only)
McCauley spinner assembly D-6240 (use with
McCauley 3-blade propeller only)
McCauley spinner assembly D-6195 (use with
McCauley 2-blade propeller only)

	Governor: Woodward F210681 or B210761 (O-540-J/IO-540-W only); E210761 (O-540-B only) McCauley C290D3X/T30 (O-540-J/IO-540-W only) C290D3X/T31 (O-540-B only)
Airspeed limits (CAS)	Landplane: (See NOTE 11)
C.G. range	Landplane: (+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1700 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	Landplane: 2500 lbs.
Number of seats	4 (2 at +20, 2 at +56) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	IO-540: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-8-235, s/n 15001C and up
Production basis	Production Certificate No. 11S0

XX. Model **MX-7-160**, 4 PCLM (Normal Category), Approved November 13, 1992

(Same as MXT-7-180, except for engine, propeller, and has conventional tailwheel landing gear.)

Engine	Lycoming O-320-B2D
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	160 hp at 2700 rpm, full throttle continuous
Propeller and propeller limits	Sensenich fixed pitch 74DM7S5-0-54 or 56 (74" Dia.) Diameter: Not over 74 in., not under 72 in., no further reduction permitted. Static rpm at full throttle: Not over 2500 rpm, not under 2400 rpm. Spinner: Sensenich spinner assembly C2346
Airspeed limits (IAS)	Landplane: Never exceed 180 mph (156 knots) Max. structural cruising 147 mph (128 knots) Maneuvering 125 mph (109 knots) Flaps extended 95 mph (82 knots)
C.G. range	Landplane: (+16.2) to (+20.5) at 2200 lbs. (+14.0) to (+20.5) at 1550 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None

Maximum weight	2200 lbs.
Number of seats	4 (2 at +20, 2 at +56)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-160, s/n 19001C and up
Production basis	Production Certificate No. 11S0

XXI. Model **MXT-7-160**, 2/4 PCLM (Normal Category), Approved November 13, 1992

(Same as MXT-7-180, except for engine and propeller.)

Engine	Lycoming O-320-B2D		
Fuel	100/100LL minimum grade aviation gasoline		
Engine limits	160 hp at 2700 rpm, full throttle continuous		
Propeller and propeller limits	Sensenich fixed pitch 74DM7S5-0-54 or 56 (74" Dia.) Diameter: Not over 74 in., not under 72 in., no further reduction permitted. Static rpm at full throttle: Not over 2500 rpm, not under 2400 rpm. Spinner: Sensenich spinner assembly C-2346		
Airspeed limits (IAS)	Landplane:	Never exceed	180 mph (156 knots)
		Max. structural cruising	147 mph (128 knots)
		Maneuvering	125 mph (109 knots)
		Flaps extended	95 mph (82 knots)
C.G. range	Landplane:	(+15.4) to (+20.5) at 2200 lbs. (+13.2) to (+20.5) at 1600 lbs. or less Straight line variation between points given.	
Empty weight C.G. range	None		
Maximum weight	2200 lbs.		

Number of seats	2 (2 at +20) Optional: 4 (2 at +20, 2 at +56)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wing at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MXT-7-160, s/n 17001C and up
Production basis	Production Certificate No. 11S0

XXII. Model **MX-7-180A**, 4 PCLM (Normal Category), Approved June 3, 1993

(Same as MXT-7-180, except for engine, propeller, and has conventional tailwheel landing gear.)

Engine	Lycoming O-360-C1F or O-360-C4F		
Fuel	100/100LL minimum grade aviation gasoline		
Engine limits	180 hp at 2700 rpm, full throttle continuous		
Propeller and propeller limits	Sensenich fixed pitch 76EM8S5-0-56 (76" Dia.) Diameter:Not over 76 in., not under 76 in., no further reduction permitted. Static rpm at full throttle: Not over 2500 rpm, not under 2400 rpm. Spinner: Sensenich spinner assembly C2346		
Airspeed limits (IAS)	Landplane:	Never exceed Max. structural cruising Maneuvering Flaps extended	185 mph (161 knots) 149 mph (129 knots) 125 mph (109 knots) 98 mph (85 knots)
C.G. range	Landplane:	(+15.9) to (+20.5) at 2400 lbs. (+12.6) to (+20.5) at 1550 lbs. or less Straight line variation between points given.	
Empty weight C.G. range	None		
Maximum weight	2400 lbs.		
Number of seats	4 (2 at +20, 2 at +56)		
Maximum baggage	170 lbs. at (+20), 350 lbs. (+42), 250 lbs. (+70)		
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wing at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)		
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)		

Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-180A, s/n 20001C and up
Production basis	Production Certificate No. 11S0

XXIII. Model **MXT-7-180A**, 4 PCLM (Normal Category), Approved June 3, 1993

(Same as MXT-7-180, except for engine and propeller.)

Engine	Lycoming O-360-C1F or O-360-C4F		
Fuel	100/100LL minimum grade aviation gasoline		
Engine limits	180 hp at 2700 rpm, full throttle continuous		
Propeller and propeller limits	Sensenich fixed pitch 76EM8S5-0-56 (76" Dia.) Diameter: Not over 76 in., not under 76 in., no further reduction permitted. Static rpm at full throttle: Not over 2500 rpm, not under 2400 rpm. Spinner: Sensenich spinner assembly C-2346		
Airspeed limits (IAS)	Landplane:	Never exceed Max. structural cruising Maneuvering Flaps extended	185 mph (161 knots) 149 mph (129 knots) 125 mph (109 knots) 98 mph (85 knots)
C.G. range	Landplane:	(+16.1) to (+20.5) at 2400 lbs. (+13.4) to (+20.5) at 1600 lbs. or less Straight line variation between points given.	
Empty weight C.G. range	None		
Maximum weight	2400 lbs.		
Number of seats	4 (2 at +20, 2 at +56)		
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)		
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)		
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 12 for data on system oil.)		
Control surface movements	(See NOTE 12)		
Serial numbers eligible	Model MXT-7-180A, s/n 21001C and up		
Production basis	Production Certificate No. 11S0		

XXIV. Model **MX-7-180B**, 4/5 PCLM (Normal Category), Approved July 12, 1993

(Same as MXT-7-180 except for conventional tailwheel landing gear.)

Engine	Lycoming O-360-C1F
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	180 hp at 2700 rpm, full throttle continuous
Propeller and propeller limits	Hartzell constant speed HC-C2YR-1BF/F7666A (76" Dia.) Diameter:Not over 76 in., not under 72 in., no further reduction permitted. Pitch settings at 30" sta.: low 12º high 27.8º to 29.8º Avoid continuous operation between 2000 and 2250 rpm. Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681 McCauley C290D3X/T29
Airspeed limits (IAS)	Landplane: Never exceed 185 mph (161 knots) Max. structural cruising 149 mph (129 knots) Maneuvering 125 mph (109 knots) Flaps extended 98 mph (85 knots)
C.G. range	Landplane: (+15.9) to (+20.5) at 2500 lbs. (+12.6) to (+20.5) at 1550 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	2500 lbs.
Number of seats	4 (2 at +20, 2 at +56) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-180B, s/n 22001C and up
Production basis	Production Certificate No. 11S0

XXV. Model **MXT-7-420**, 4/5 PCLM (Normal Category), Approved July 12, 1993

(Same as MXT-7-180 except for nacelle, engine, propeller.)

Engine		Allison Gas Turbine 250-B17C
Fuel	Primary:	Mil-T-5624L, grade JP-4 and JP-5, Mil-T-83133A, grade JP-8 ASTM-D-1655, Jet A, A1 or B, JP-1 Fuel conforming to ASTM-D-1655, Jet A, Artic Diesel Fuel DF-A (VV0F800B) conforming to ASTM-D-1655, Jet A or A1 Diesel #1 fuel conforming to ASTM-D-1655, Jet A

Emergency:	Mil-G-5572, all grades (aircraft boost pump on; maximum of 6 hours operation per overhaul period of turbine through an engine operating range of idle to 90% maximum SHP)
Cold Weather:	To assure consistent starts below 4ºC (40ºF), the following fuels may be necessary: MIL-T-5624, grade JP-4 ASTM-D-1655, Jet B AVGAS/Jet A, Jet A1 or Jet JP-5 mixture. (Refer to Cold Weather Fuels, para 2-48, for mixing/use of cold weather fuel in Allison Manual 11W2.)
Engine limits	369 hp - 90 psi torque, at 2030 rpm continuous
Propeller and propeller limits	Hartzell, constant speed, full-feathering beta, model HC-B3TF-7A/T10173F-21R Diameter: 80.5 - 78 inches Pitch settings at 30" sta.: Reverse pitch -15º ±5º feather 81.1º ±5º Spinner: Hartzell spinner assembly A3640P Maximum operating altitude 20,000 feet
Airspeed limits (IAS)	Maximum operating 151 mph (131 knots) Maximum structural cruising 145 mph (126 knots) Maneuvering 121 mph (105 knots) Flaps extended 94 mph (82 knots)
C.G. range	(+16.0) to (+20.5) at 2500 lbs. (+13.0) to (+20.5) at 1700 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	2500 lbs.
Number of seats	4 (2 at +20, 2 at +56) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+70)
Fuel capacity	43 gal. (40 usable; two 21.5 gal. tanks in wings at +24 - considered one tank) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks, 30 gal. (30 usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	10 qts. (-22.5), 9 qts. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MXT-7-420, s/n 16001C and up
Production basis	None. Prior to original certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials, and conformity to the approved technical data and a check of the flight characteristics.

XXVI. Model **M-7-235B**, 5 PCLM (Normal Category), Approved October 14, 1993

(Same as MT-7-235 except has conventional tailwheel landing gear.)

Engine	Lycoming	O-540-J1A5D, O-540-J3A5, IO-540-W1A5A, IO-540-W1A5 or O-540-B4B5
Fuel	100/100LL minimum grade aviation gasoline	
Engine limits	235 hp at 2400 rpm, all operations (O-540-J/IO-540-W) 235 hp at 2575 rpm, all operations (O-540-B)	
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F8468A-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum air pressure.) Diameter: -3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Pitch settings at 30" sta.: low 16º ±1º high 29º to 31º Airplane with O-540-B4B5 engine: -3R -6R: Do not exceed 23 in. M.P. below 2050 rpm. Use with O-540-J or IO-540-W only: McCauley constant speed 3-blade model B3D32C414-C/G-82NDA-2 or -4 (-2 use with 7:00 tires or larger) McCauley constant speed 2-blade model B2D37C224-B/G-90RA-9 (Use with 7:00 tires or larger/26 psi minimum air pressure.) Pitch settings at 30" sta.: -2 (80"): low 15.0º ±0.2º high 30.0º ±0.5º -4 (78"): low 15.7º ±0.2º high 30.0º ±0.2º -9 (81"): low 15.8º ±0.2º high 24.6º ±0.5º Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCauley spinner assembly D-6240 (use with McCauley 3-blade propeller only) McCauley spinner assembly D-6195 (use with McCauley 2-blade propeller only) Governor: Woodward F210681 or B210761 (O-540-J/IO-540-W only); E210761 (O-540-B only) McCauley C290D3X/T30 (O-540-J/IO-540-W only) C290D3X/T31 (O-540-B only)	
Airspeed limits (IAS)	Landplane:	Never exceed 182 mph (158 knots) Max. structural cruising 147 mph (128 knots) Maneuvering 125 mph (109 knots) Flaps extended 95 mph (83 knots)
C.G. range	Landplane:	(+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less
Empty weight C.G. range	None	
Maximum weight	Landplane:	2500 lbs.
Number of seats	5 (2 at +20, 2 at +53, 1 at +83)	
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+72)	

Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system fuel.)
Oil capacity	IO-540: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum (See NOTE 1 for data on system oil.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-7-235B, s/n 23001C and up
Production basis	Production Certificate No. 11S0

XXVII. Model **M-7-235A**, 5 PCLM (Normal Category) Approved March 10, 1994

(Same as M-7-235 except for flaps and ailerons.)

Engine	Lycoming	O-540-J1A5D, O-540-J3A5, IO-540-W1A5D, IO-540-W1A5, or O-540-B4B5
Fuel	100/100LL minimum grade aviation gasoline	
Engine limits	235 hp at 2400 rpm, all operations (O-540-J/IO-540-W) 235 hp at 2575 rpm, all operations (O-540-B)	
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F8468-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum air pressure.) Diameter: -3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Airplane with O-540-B4B5 engine and Floatplane: -3R Pitch settings at 30" sta.: low 16º ±1º high 29º to 31º -6R: Do not exceed 23 in. M.P. below 2050 rpm. Use with O-540-J or IO-540-W only: McCauley constant speed 3-blade Model B3D32C414-C/G-82NDA-2 or -4 (-2 use with 7:00 tires or larger) McCauley constant speed 2-blade model B2D37C224-B/G-90RA-9 (Use with 7:00 tires or larger/26 psi minimum air pressure.) Pitch settings at 30" sta.: -2 (80"): low 15.0º ±0.2ºhigh 30.0º ±0.5º -4 (78"): low 15.7º ±0.2ºhigh 30.0º ±0.2º -9 (81"): low 15.8º ±0.2ºhigh 24.6º ±0.5º Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCauley spinner assembly D-6240 (use with McCauley 3-blade propeller only) McCauley spinner assembly D-6195 (use with McCauley 2-blade propeller only) Governor: Woodward F210681 or B210761 (O-540-J/IO-540-W only); E210761 (O-540-B only) McCauley C290D3X/T30 (O-540-J/IO-540-W only) C290D3X/T31 (O-540-B only)	

Airspeed limits (IAS)	Landplane:	Never exceed	182 mph (158 knots)
		Max. structural cruising	147 mph (128 knots)
		Maneuvering	125 mph (109 knots)
		Flaps extended	95 mph (83 knots)
	Floatplane:	Never exceed	164 mph (143 knots)
C.G. range	Landplane:	(+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less	
	Floatplane:	EDO 797-2500 amphibious or 248B2440: (+14.0) to (+19.0) at 2750 lbs. (+10.5) to (+19.0) at 1600 lbs. or less Straight line variation between points given.	
Empty weight C.G. range	None		
Maximum weight	Landplane:	2500 lbs.	
	Floatplane:	2750 lbs.	
Number of seats	5 (2 at +20, 2 at +53, 1 at +83)		
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+72)		
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) or 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks 30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24) (See NOTE 1 for data on system oil.)		
Oil capacity	IO-540: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum (See NOTE 1 for data on system oil.)		
Control surface movement	(See NOTE 12)		
Serial numbers eligible	Model M-7-235A, s/n 24001C and up		
Production basis	Production Certificate No. 11S0		

XXVIII. Model M-7-235C, 5PCLM (Normal Category), Approved October 10, 1995

(Same as M-7-235B except spring aluminum main landing gear.)

Engine	Lycoming: O-540-J1A5D, O-540-J3A5, IO-540-W1A5D, O-540-W1A5 or O-540-B4B5
Fuel	100/100LL minimum grade aviation gasoline
Engine Limits	235 hp at 2400 rpm, all operataions (O-540-J/IO-540-W/ O-540-W) 235 hp at 2575 rpm, all operations (O-540-B)

Propeller and Propeller Limits	Hartzell constant speed Model HC-C2YR-1BF/F8468A-6R or -3R (-3R applicable only to aircraft equipped with 7:00 tires or larger/26 psi minimum) Diameter: -3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in. Pitch settings at 30" sta.: Low 16° ± 1°, high 30° ± 1° With O-540-B4B5 engine: Low 13.8° ± 1°, high 30° ± 1° -6R: Do not exceed 23 in. M.P. below 2050 rpm. McCauley constant speed 3-blade Model B3D32C414-C/G-82NDA-2 or -4 (-J/-W engine only) (-2 use with 7:00 tires or larger) McCauley constant speed 2-blade Model B2D37C224-B/G-90RA-9) (Use with 7:00 or larger/26 psi minimum) Pitch settings at 30" sta.: -2 (80"): low 15.0° ± 0.2°, high 30.3° ± 0.5° (-J/-W engine) -4 (78"): low 15.7° ± 0.2°, high 30.0° ± 0.2° (-J/-W engine) -9 (81"): low 14.7° ± 0.2°, high 24.6° ± 0.5° (-J/-W engine) -9 (81"): low 13.3° ± 0.2°, high 24.6° ± 0.5° (-B engine) Spinner: Hartzell spinner assembly A2298-2 (Use with Hartzell propeller only) McCauley spinner assembly D-6240 (Use with McCauley 3-blade propeller only) McCauley spinner assembly D-6195 (Use with McCauley 2-blade propeller only) Governor: Woodward F210681 or B210761 (-J/-W only), E210761 (-B only) McCauley C290D3X/T30 or DC290D1X/T14 (-J/-W only) C290D3X/T31 or DC290D1X/T15 (-B only)
Airspeed limits (IAS)	Landplane: Never Exceed 182 mph (158 knots) Max. structural cruising 147 mph (128 knots) Maneuvering 125 mph (109 knots) Flaps extended 95 mph (83 knots)
C.G. range	Landplane: (+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1760 lbs. or less
Empty weight C.G. range	None
Maximum weight	Landplane: 2500 lbs.
Number of seats	5 (2 at +20, 2 at +53, 1 at +83)
Maximum baggage	170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+72)
Fuel capacity	47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Optional wing auxiliary tanks - 30 gal. (30 gal. usable:two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable: two 21 gal. tanks in wings at +24) (See NOTE 1 for data on fuel system.)
Oil capacity	IO-540: 8 qt. (-34), 5 qt. minimum O-540: 12 qt. (-34), 9 qt. minimum

(See NOTE 1 for data on oil system.)

Control surface movement (See NOTE 12)

Serial numbers eligible Model M-7-235C, s/n 25001C and up.

Production basis Production Certificate No. 11SO

XXIX. Model MX-7-180C, 4/5 PCLM (Normal Category), Approved August 27, 1996

(Same as MX-7-180B except for landing gear (aluminum spring mains)

Engine Lycoming O-360-C1F

Fuel 100/100LL minimum grade aviation gasoline

Engine limits 180 hp at 2700 rpm, Full Throttle continuous

Propeller and Propeller limits Hartzell constant speed HC-C2YR-1BF/F7666A (76")
Diameter: Not over 76 in., not under 72 in., no further reduction permitted
Pitch settings at 30" sta.: low 12°, high 27.8° to 29.8°
Avoid continuous operation between 2000 and 2250 rpm.

Spinner: Hartzell spinner assembly A2298-2

Governor: Woodward H210681
McCauley C290D3X/T29

Airspeed limits (IAS)

Landplane:	Never Exceed	185 mph (161 knots)
	Max. structural cruising	149 mph (129 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	98 mph (85 knots)

C.G. range Landplane: (+15.9) to (+20.5) at 2500 lbs.
(+12.6) to (+20.5) at 1550 lbs. or less
Straightline variation between points given.

Empty weight C.G. range None

Maximum weight 2500 lbs.

Number of seats 4 (2 at +20, 2 at +53)
Optional: 5 (2 at +20, 2 at +50, 1 at +78)

Maximum baggage 170 lbs. (+20), 350 lbs. (+42), 250 lbs. (+72)

Fuel capacity 47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24)
Optional wing auxiliary tanks:
30 gal. (30 gal. usable; two 15 gal. tanks in wings at +24) or 42 gal. (42 gal. usable; two 21 gal. tanks in wings at +24)

Oil capacity 8 qt. (-36.5), 2 qt. minimum

Control surface movement	Wing flaps	Handle full down	-7° ± 1°
		First notch	0° ± 1°
		Second notch	24° ± 3°
		Third notch	40° ± 3°
		Fourth notch	48° ± 2°
	Aileron	Up 20° ± 1°	Down 20° ± 1°
	Elevator	Up 30° ± 1°	Down 20° ± 1°
	Elevator tab	Up 12° ± 2°	Down 38° ± 2°
	Rudder	Right 21° ± 1°	Left 21° ± 1°
	Rudder tab	Right 48° ± 4°	Left 48° ± 4°

Serial numbers eligible: MX-7-180C, s/n 28001C and up

Production basis: Production certificate No. 11SO

DATA PERTINENT TO ALL MODELS:

Datum: Wing leading edge

Leveling means: Leveling lug and mark on bottom side of right wing root.

Certification basis: Part 3, Civil Air Regulations, effective May 15, 1956 as amended by 3-1 thru 3-5 and 3.705 as amended by 3-7; and FAR 36 amended thru 36-4 and FAR 23.955 in lieu of CAR 3.435 for the models M-5-235C, M-5-180C, M-5-210TC, M-6-235, M-5-200, M-6-180, M-7-235, MX-7-235, MX-7-180, MXT-7-180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235A, and M-7-235B, M-7-235C, MX-7-180C.

Special Certification rules for the Model M-5-210TC:

FAR	21.101(b)	Amendment	21-42
	23.141		23-7
	23.909		23-7
	23.1041		23-7
	23.1043		23-7
	23.1047		23-7
	23.1093		23-17
	23.1143		23-17
	23.1183		23-15
	23.1305(p)		23-15
	23.1527		23-7
	23.1583(k)		23-7

Special Certification Rule for the Model MX-7-180:
FAR 23.1545 Amendment 23-23, October 30, 1978 in lieu of CAR 3.757 (Amendment 3-5, September 1, 1959)

Special Certification Rules for the Model MX-7-420 and MXT-7-420:
Part 3, Civil Air Regulations, affective May 15, 1956, as amended through 3-7; and FAR 36 as amended through 36-14, SFAR 27 as amended through 27-2, and the following FAR Part 23 requirements for turbine engine installations:

23.45 (-21)	23.1027 (-14)
23.49 (-21)	23.1041 (-7)
23.65 (-21)	23.1043 (-21)
23.75 (-21)	23.1045 (-7)
23.77 (-21)	23.1091 (-7)
23.173 (-14)	23.1093 (-18)
23.175 (-17)	23.1103 (-7)
23.251 (-0)	23.1105 (0)
23.253 (-7)	23.1111 (-17)
23.335 (-16)	23.1121 (-18)
23.361 (-26)	23.1141 (-18)

23.371 (-7)	23.1143 (-17)
23.629 (-31)23.1145 (-18) (to include whirl mode)	
23.863 (-23)	23.1155 (-7)
23.901 (-18)	23.1165 (-17)
23.903 (-26)	23.1183
23.905 (-26)	23.1303 (-17)
23.929 (-14)	3.1305 (-26)
23.933 (-17)	23.1323 (-20)
23.937 (-7)	23.1337 (-18)
23.939 (-18)	23.1353 (-20)
23.943 (-18)	23.1505 (-7) & 3.187 or 23.333
23.951 (-15)	23.1521 (-21)
23.955 (-7)	23.1527 (-7)
23.977 (-17)	23.1529 (-26)
23.991 (-26)	23.1545 (-23)
23.997 (-15)	23.1549 (-12)
23.1013 (-15)	23.1557 (-23)
23.1015 (-15)	23.1583 (-23)
23.1019 (-15)	23.1587 (-23)

Type Certificate No. 3A23 issued August 10, 1961

Application for Type Certificate dated November 1, 1957

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see certification basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required:

(A) Stall Warning Indicator, Maule drawing 6016F

(B) The following FAA Approved Airplane Flight Manuals are required:

1. Model **M-4**: AFM dated 3/15/66 with rev. 2 dated 5/1/84 is in effect for all M-4, M-4C, M-4S and M-4T

2. Model **M-4-210**, s/n 1001-1005 modified per Maule SL#6, 1001-1035 modified per Maule SL#7 (AD#65-28-04) and s/n 1036-1045, AFM dated 9/24/64 with rev. 1 dated 11/18/64 or AFM dated 3/15/66 with rev. 2 dated 3/15/66. When s/n 1001-1045 modified per Maule SL#15 for 2300# GW, AFM dated 3/15/66 with rev. 3 dated 10/15/68 must be incorporated.

3. Model **M-4-210C,** s/n 1001C-1074C, 1079C, 1080C, AFM dated 3/15/66 with rev. 2 dated 3/15/66; s/n 1001C-1074C, 1079C 1080C modified per Maule SL#15 for 2300# GW and s/n 1075C-1078C, 1081C-1085C, AFM dated 3/15/66 with rev. 3 dated 10/15/68; s/n 1086C-1117C, AFM dated 3/15/66 with rev. 4 dated 6/20/73 Note: Models M-4-210S and T were never produced.

4 . Model **M-4-220 series**,(includes M-4-220, M-4-220C), AFM dated 9/28/66 with rev. 5 dated 5/1/84 Note: Model M-4-220T was never produced.

5. Model **M-4-220S**, s/n 2001S, AFM dated 9/28/66 (2100# GW) Note: Rev. 1 to this AFM does not apply to this s/n.

6. Model **M-4-180 series**, AFM dated 10/20/70 with rev. A dated 5/1/84 Note: Models M-4-180S and T were never produced.

7. Model **M-5-220C**, AFM dated 12/28/73 with rev. A dated 5/1/84

8. Model **M-5-210C**, AFM dated 12/28/73 with rev. B dated 5/1/84

9. Model **M-5-235C**, s/n 7001C-7026C, 7028C, 7030C-7032C, 7037C, AFM dated 4/6/76,

with expanded C.G. limits per Maule SL#36, rev. B dated 11/6/80; s/n 7027C, 7029C, 7033C-7036C, 7038C-7248C, 7250C-7320C, 7322C-7346C, 7348C, 7349C, AFM dated 4/6/76 with rev. B dated 11/6/80; s/n 7350C, 7352C-7355C, 7357C-7362C, 7364C-7367C, AFM dated 4/6/76 with rev. C dated 4/22/81; s/n 7321C, 7347C, 7351C, 7363C, 7369C-7373C, 7375C, 7445C, 7451C, 7460C, 7467C, AFM dated 8/12/81 with rev. A dated 5/1/84. NOTE: AFMs dated 4/6/76 must have AFM Supplement #13 attached. AFM dated 1/13/86 for s/n 7470C, 7478C-7480C, 7484C-7487C, 7515C

10. Model **M-5-180C**, AFM dated 4/19/79 for s/n 8001C-8014C, 8016C-8019C, 8021C, 8023C-8042C, 8044C-8064C, 8068C, 8069C with rev. D dated 4/12/84; AFM dated 6/12/85 for s/n 8070C-8094C

11. Model **M-5-200**, AFM dated 10/29/82, rev. B dated 6/10/94

12. Model **M-5-210TC**, AFM dated 2/4/80, rev. B dated 5/1/84

13. Model **M-6-235**, AFM dated 6/25/81, rev. I dated 6/10/94 for s/n 7249C, 7356C, 7379C-7465C; AFM dated 5/23/85, rev. B dated 6/10/94 for s/n 7466C, 7468C-7473C; AFM dated 2/19/87, rev. B dated 12/18/92 for s/n 7474C and up

14. Model **M-6-180**, AFM dated 9/15/82, rev. C dated 6/10/94

15. Model **M-7-235**, AFM dated 11/9/83, rev. F dated 10/17/94

16. Model **MX-7-235**, AFM dated 10/18/84, rev. F dated 10/28/94

17. Model **MX-7-180**, AFM dated 12/18/84, rev. E dated 10/28/94

18. Model **MX-7-420**, AFM dated 6/1/89, rev. D dated 10/28/94

19. Model **MXT-7-180**, AFM dated 11/9/90, rev. B dated 10/28/94

20. Model **MT-7-235**, AFM dated 3/20/92, rev. C dated 10/28/94

21. Model **M-8-235**, AFM dated 8/10/92, rev. D dated 1/26/96

22. Model **MX-7-160**, AFM dated 11/13/92, rev. C dated 5/11/95

23. Model **MXT-7-160**, AFM dated 11/13/92, rev. A dated 10/28/94 (S/N 17001C thru 17003C only); rev. B dated 11/13/92 (S/N 17004C and up)

24. Model **MX-7-180A**, AFM dated 6/3/93, rev. B dated 5/11/95

25. Model **MXT-7-180A**, AFM dated 6/3/93, rev. B dated 1/10/97

26. Model **MX-7-180B**, AFM dated 7/12/93, rev. B dated 5/11/95

27. Model **MXT-7-420**, AFM dated 7/12/93, rev. A dated 10/28/94

28. Model **M-7-235B**, AFM dated 10/14/93, rev. C dated 1/26/96
29. Model **M-7-235A**, AFM dated 3/10/94, rev. B dated 1/26/96

30. Model **M-7-235C** AFM dated 10/10/95

31. Model **MX-7-180C** AFM dated 8/26/96; rev. A dated 4/7/97

Note 1 Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification.

The certificated empty weight and corresponding center of gravity location must include unusable fuel and undrainable oil as follows:

Fuel 6 lb.s (+24)	M-4 series
Oil 8 lbs. (-37)	M-4 series
Fuel 18 lbs. (+24) (20 gal. main)	M-4-210 series, M-4-220 series, M-4-180 series, M-5-210C, M-5-220C, M-5-210TC, M-5-235C, M-5-200, M-6-236, M-6-180, M-7-235, MX-7-235, MX-7-180, MXT-7-180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235B, M-7-235A
Fuel 27.6 lbs. (+24)	M-7-235, MX-7-235, MX-7-180, MXT-7-180, (21.5 gal. main), MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180C
Oil 6 lbs. (-37)	M-4-220 series, M-4-180 series, M-4-210 series, M-5-220C, M-5-210C
Oil 6 lbs. (-36.5)	M-5-180, M-5-210TC, M-5-200, M-6-180, MX-7-180, MXT-7-180, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B/-180C
Oil 6 lbs. (-34)	M-5-235C, M-6-235, M-7-235, MX-7-235, MT-7-235, M-7-235B, M-7-235A/-235C
Fuel 16.2 lbs. (+24) (40.6 gal. main)*	MX-7-420, MXT-7-420
Fuel 31 lbs. (+24) (43 gal. main)*	MXT-7-420

* Two main tanks considered one tank

Oil 20 lbs. (-22.5)	MX-7-420, MXT-7-420

Note 2 The following placards shall be displayed:

(A) In front of and in clear view of the pilot:

1. For all M-4 models:
"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS."

For M-5 and subsequent models:
"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATION LIMITATIONS STATED IN THE AIRPLANE FLIGHT MANUAL AND IN THE FORM OF PLACARDS AND MARKINGS."

2. "NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED." or "AEROBATIC MANEUVERS, INCLUDING SPINS, ARE NOT APPROVED."

3. For all models except MX-7-420, MX-7-180, MXT-7-180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180C:

"ROUGH AIR OR MANEUVERING SPEED 125 MPH."

For MX-7-180:

"ROUGH AIR OR MANEUVERING SPEED: 129 MPH (112K)"

For MX-7-420 and MXT-7-420:

"ROUGH AIR OR MANEUVERING SPEED IS 121 MPH (105K)"

For MXT-7-180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235B, M-7-235A, M-7-235C, MX-7-180C:

"MANEUVERING SPEED: 125 MPH IAS (109K)."

4. One of the following placards must be installed in the M-4 and M-4-210:

   a. "THIS AIRCRAFT APPROVED FOR DAY VFR FLIGHT ONLY."

   b. "THIS AIRCRAFT APPROVED FOR DAY OR NIGHT VFR FLIGHT." (If equipment and instruments conforming to FAR 91.33(c) are installed.)

   c. "THIS AIRCRAFT APPROVED FOR DAY OR NIGHT VFR OR IFR FLIGHT." (If equipment and instruments conforming to FAR 91.33(d) and FAR 91.170 are installed.)

   The following placard must be installed on all models except the M-4 and M-4-210:

   "THIS AIRCRAFT APPROVED FOR DAY OR NIGHT IFR NON-ICING FLIGHT WHEN EQUIPPED IN ACCORDANCE WITH FAR 91 OR FAR 135."

5. "SEE LOADING INSTRUCTIONS IN WEIGHT AND BALANCE SECTION OF AIRPLANE FLIGHT MANUAL."

6. "FUEL REMAINING IN TANK WHEN INDICATOR READS ZERO CANNOT BE USED SAFELY IN FLIGHT."

7. For M-5 and subsequent models except -420 series:

   "DO NOT TURN OFF ALTERNATOR IN FLIGHT EXCEPT IN CASE OF EMERGENCY."

8. For -420 series:
   "COMPASS UNRELIABLE WHEN HEATED INLET IS ON."

9. For -235 series (when using -6R propeller):
   "DO NOT EXCEED 23 INCHES M.P. BELOW 2050 RPM."

   For M-5-200:
   "FOR CONTINUOUS OPERATION DO NOT EXCEED 24 INCHES OF MANIFOLD PRESSURE BELOW 2350 RPM."

For M-5-210TC:
"NOT MORE THAN 34" OF MANIFOLD PRESSURE AT PROPELLER SPEEDS LESS THAN 2350 RPM."
and "NOT LESS THAN 20" OF MANIFOLD PRESSURE AT PROPELLER SPEEDS BETWEEN 2250 AND 2450 RPM."

10. For MXT-7-180A:
"DEMONSTRATED CROSSWIND 15 MPH."

11. In addition to the above placards, the following is required when Fli-Lite 3000 MK IIIA skis are installed:

For M-4 series:
"SKIPLANE LIMITATIONS: MAXIMUM GROSS WEIGHT 1850 LBS.
DO NOT EXCEED 160 MPH. SKI OPERATION PROCEDURES: SET SELECTOR TO POSITION DESIRED THEN OPERATE PUMP UNTIL MAXIMUM PRESSURE IS DEVELOPED."

For M-4-210C series:
"SKIPLANE LIMITATIONS: MAXIMUM GROSS WEIGHT 2100 LBS. DO NOT EXCEED 160 MPH. SKI OPERATION PROCEDURES: SET SELECTER TO POSITION DESIRED THEN OPERATE PUMP UNTIL MAXIMUM PRESSURE IS DELVELOPED."

Additional placards listed in the applicable AFM Supplement for skiplane operation must be installed.

12. At the top of the instrument panel, to the right of the radio group:

For M-4, s/n 3-91, M-4-210, s/n 1001-1043, M-4-210C, s/n 1001C-1010C, or if no ashtray installed per Maule drawing 6007B:
"NO SMOKING"

13. On the instrument panel or wing root panel at the auxiliary fuel tank transfer switches, (if installed):

FUEL TRANSFER PUMPS

PUSH FOR AUX. QUANT. LEFT	PUSH FOR AUX. QUANT. RIGHT

FUEL CAPACITY: MAIN TANKS (*) GAL. USABLE EACH,
AUX. TANKS (**) GAL. USABLE EACH TANK.

*20 gal. except M-7/MXT-7/MT-7/M-8 series may have either 20 gal. or 23 gal.

**For M-4/M-5 series:	11.5 gal.
For M-6-180:	13.0 gal.
For M-6-235, s/n 7249C-7473C:	13.0 gal.
For M-6-235, s/n 7474C and up:	15.0 gal.
For M-7/MXT-7/MT-7/M-8/ MX-7-180C series:	15.0 or 21.0 gal.
For MX-7-420/MX-7-180/MX-7-235:	15.0 gal.

(B) Located on the flap handle:

1. For M-4 series (all) and M-5-235C, s/n 7001C-7248C, 7250C- 7320C, 7322C-7346C, 7348C-7350C, 7352C-7362C, 7364C-7368C, M-5-180, s/n 8001C-8022C, M-5-210C (all), M-5-220C (all), M-5-210TC (all):

FLAPS - PULL ON/ 15º TAKEOFF/ 35º LANDING

or for M-5-235C, s/n 7321C, 7347C, 7351C, 7363C, 7369C and up, M-5-200, s/n 8015C and up, M-5-180C, s/n 8023C and up, and for M-5-235C, s/n 7001C-7248C, 7250C-7320C, 7322C-7346C, 7348C-7350C, 7352C-7362C, 7364C-7368C with Maule SL#44 c/w, M-5-180C, s/n 8001C-8022C with Maule SL#49 c/w, all M-5-210C with Maule SL#46 c/w, all M-5-220C with Maule SL#48 c/w, all M-5-210TC with Maule SL#47 c/w:

FLAPS - PULL ON/ 20º TAKEOFF/ 40º LANDING

For M-6-180/-235, M-7-235/-235A, MX-7-180/-235, M-7-235B (S/N 23004C, 23011C, 23013C and up), M-7-235C. MX-7-180C:

FLAPS/PULL ON/ 2ND NOTCH/ TAKEOFF/ 4TH NOTCH/ LANDING

For MX-7-420/-180A/-180B/-160, MXT-7-180/-180A/-160, MT-7-235, M-8-235, M-7-235B (S/N 23001C thru 23003C, 23005C thru 23010C, 23012C unless MK #11 C/W):

FLAPS/PULL ON/2ND NOTCH/TAKEOFF/3RD NOTCH/LANDING

(C) Located at the main fuel tank selector valve on left kick panel:

1. For M-4, s/n 23, 25-45:

TAKEOFF + LANDING
LEFT ONLY
21 GAL.
RIGHT 21 GAL.
OFF

For M-4, s/n 24, 46-94, 1C-11C, 1S-3S, 1T-3T:

TAKEOFF + LANDING
BOTH TANKS
LEFT 21 GAL. RIGHT 21 GAL.
OFF

For M-4-220C, (s/n 2125C, 2127C, 2128C, 2137C, 2138C, 2140C and up), M-5-220C, M-5-200, M-5-235C/-180C, M-6-235C/-180C, MX-7-235/-180, M-7-235/-235A/-235B, MXT-7-180, MT-7-235, M-8-235, MX-7-160, MXT-7-160, MX-7-180A, MXT-7-180A, MX-7-180B, M-7-235C, MX-7-180C:

FUEL SELECTOR VALVE
LEFT: 20* GAL.
OFF BOTH
RIGHT: 20* GAL.

*or 21.5 gal. for M-7/MXT-7/MT-7/M-8 series and MX-7-160/-180/-180A/-180B/-180C

or for M-4-220C and early M-5-235C with SP2321-B3 Fuel Selector Valve: (Not applicable to M-5-235C s/n 7321C, 7347C, 7351C, 7363C, 7369C and up.):

LEFT
20 GAL.
RIGHT
20 GAL.
OFF

For M-4-210(C,S) and (M-5-210C:

LEFT
20 GAL.
RIGHT
20 GAL.

(Use with SP-2263-B3 or 10049E-6 Valve)

or

LEFT
20 GAL.
BOTH
RIGHT
20 GAL.

(Use with 10049E-7 Valve)

For -420 series:

FUEL SELECTOR VALVE
BOTH ON
OFF

(D) In rear cabin area:

1. For M-4 and M-5 series:
"BAGGAGE 250 LBS. MAXIMUM. FOR LOADING INSTRUCTIONS SEE WEIGHT AND BALANCE INFORMATION."

For M-5 and subsequent models:
"CARGO OR BAGGAGE LIMITATIONS
MAX. LOAD AREA "A" 170 LBS.
MAX. LOAD AREA "B" 350 LBS.
MAX. LOAD AREA "C" 250 LBS."

For models with optional 5th seat installed and M-7/MT-7 series:
"CHECK WEIGHT AND BALANCE CAREFULLY WHEN USING 5TH SEAT OR LOADING REAR CARGO/BAGGAGE."

"MAXIMUM REAR SEAT LOADING 170 LBS."

For M-7-235, s/n 4001C-4061C: (Unless Maule SK#15 is c/w)

"BALLAST IN AFT FUSELAGE SHOULD BE REMOVED FOR LARGE AFT CABIN LOADS. THIS BALLAST SHOULD BE IN PLACE IN THE AFT FUSELAGE STORAGE FOR LIGHT/FORWARD LOADING."

Note 3 The models Bee Dee M-4 and M-4, s/n 3-23, 25-45 fuel systems do not comply with CAR 3.433 and 3.434 for horsepower greater than 125 at the best angle of climb speed which is the most critical flight attitude.

Note 4 The following aircraft were manufactured at Jackson, Michigan:

Models	Serial numbers
M-4	3-94
M-4C	1C-11C
M-4S	1S-3S
M-4T	1T-3T
M-4-210	1001-1045
M-4-210C	1001C-1074C, 1079C, 1080C
M-4-220C	2001C-2018C
M-4-220S	2001S

Note 5 Optional wing tips (ref. Maule drawing 9041F) have been approved for all M-4 series models except Bee Dee M-4 s/n 3-14.

Note 6 Equipment approved for all models is listed on the Required and Optional Equipment Lists.

Note 7 The following aircraft are eligible for manufacture under Production Certificate No. 11S0:

Models	Serial numbers
M-4 Series	(Spare parts)
M-5-220C	(Spare parts)
M-5-210C	(Spare parts)
M-5-235C	(Spare parts)
M-5-180C	(Spare parts)
M-5-200	(Spare parts)
M-5-210TC	(Spare parts)
M-6-235	7249C, 7356C, 7379C and up
M-7-235	4001C and up
M-6-180	8020C, 8065C-8067C and up
MX-7-235	10001C and up
MX-7-180	11001C and up
MX-7-420	13001C and up
MXT-7-180	14000C and up
MT-7-235	18001C and up
M-8-235	15001C and up
MX-7-180A	20001C and up
MXT-7-180A	21001C and up
MX-7-160	19001C and up
MXT-7-160	17001C and up
MX-7-180B	22001C and up
M-7-235B	23001C and up
M-7-235A	24001C and up
M -7-235C	25001C and up
MX-7-180C	28001C and up

Note 8 For M-4-220C, s/n 2178C and up, and all other M-4-220 airplanes which have complied with Maule SL#27, the maximum continuous throttle operation restriction may be removed and replaced by 220 hp - 2800 rpm all operations. Airplane Flight Manual Supplement No. 3 must be attached to the FAA approved Airplane Flight Manual for those airplanes incorporating Maule SL#27.

Note 9 All Maule float installations require installation of wing tip mounted anti-collision light system conforming to Maule drawing 7045F for night flight.

Note 10 For all aircraft except model Bee Dee M-4, s/n 3-14 and M-4 s/n 15-44, all placards required in the applicable approved Airplane Flight Manual and skiplane and floatplane AFM Supplements must be installed in the appropriate location.

Note 11 Airspeed limits (CAS) for models M-5-210C/-220C/-235C/-210TC/-200, M-6-235/-180C, M-7/M-8/MX-7-235:

Landplane:	Never exceed	180 mph (156 knots)
	Max. structural cruising	145 mph (126 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	94 mph (82 knots)

Also, for models M-5-210C/-220C/-235C/-180C, M-6-235:

Floatplane:	Never exceed	164 mph (143 knots)
	Max. structural cruising	145 mph (126 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	94 mph (82 knots)

Also, for models M-5-210C/-220C/-235C, M-6/M-7-235:

Skiplane:	Never exceed	160 mph (139 knots)
	Max. structural cruising	145 mph (126 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	94 mph (82 knots)

Note 12 Control surface movements for M-6 and subsequent models:

Wing flaps	Handle full down		-7º ±1º
	First Notch		0º ±1º
	Second Notch		24º ±3º
	Third Notch		40º ±3º
	The following flap position for M-6-180/-235, MX-7-180/-235/-180C and M-7-235/-235A/-235B (S/N 23004C, 23011C, 23013C and up)/-235C only:		
	Fourth Notch		48º ±2º
Aileron	Up 20º ±1º	Down	20º ±1º
Elevator	Up 30º ±1º	Down	20º ±1º
Elevator tab	Up 14º ±2º	Down	28º ±2º
Elevator tab w/piano hinge	Up 12º ±2º	Down	38º ±2º
Rudder	Right 21º ±1º	Left	21º ±1º
Rudder tab	Right 48º ±4º	Left	48º ±4º

(Note: Rudder tab not installed on M-7-235 s/n 4001C- 4022C - M-7 Rudder w/tab may be installed per MK#4)

Note 13 Aircraft models M-4-210, M-4-210C, M-4-220S, M-4-220C, M-5-210C, M-5-220C, M-5-235C, M-6-235, M-7-235/-235A/-235B, MX-7-235 are eligible for float installation when structural modifications have been incorporated per Maule drawings 9001F, Sheet 1, also required are structural modifications per 9001F, Sheet 2 for the following models: M-4-210C, M-4-220C, M-5-210C, M-5-220C, M-5-235C s/n 7001C-7460C, M-6-235 s/n 7249C, 7356C, 7379C-7465C, and MX-7-235 s/n 10001C-10005C.

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