

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

			3A23
			Revision 31
			MAULE
Bee Dee M-4	M-5-180C	MXT-7-160	M-4-180V
M-4	M-5-200	MX-7-180A	M-9-235
M-4C	M-5-210C	MXT-7-180A	
M-4S	M-5-210TC	MX-7-180B	
M-4T	M-5-220C	M-7-235B	
M-4-180C	M-5-235C	M-7-235A	
M-4-180S	M-6-180	M-7-235C	
M-4-180T	M-6-235	MX-7-180C	
M-4-210	M-7-235	M-7-260	
M-4-210C	MX-7-235	MT-7-260	
M-4-210S	MX-7-180	M-7-260C	
M-4-210T	MX-7-420	M-7-420AC	
M-4-220	MXT-7-180	MX-7-160C	
M-4-220C	MT-7-235	MX-7-180AC	
M-4-220S	M-8-235	M-7-420A	
M-4-220T	MX-7-160	MT-7-420	
			April 9, 2012

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
Model M-4S, 4 PCLM (Normal Category), Approved March 15, 1966
Model M-4T, 2 PCLM (Normal Category), Approved March 15, 1966

(M-4 same as Bee Dee M-4 except for minor changes)

(M-4C same as Model M-4 except for modified right fuselage truss, larger rear doors to facilitate cargo loading, and other minor changes.)

(M-4S same as Model M-4 except for minor changes.)

(M-4T 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)
Propeller and propeller limits	<p>McCaughey 1A170-DM7460</p> <p>Diameter: Not over 74 in., not under 73 in. No further reduction permitted.</p> <p>Static rpm at maximum permissible throttle setting: Not over 2200, not under 2100 No additional tolerance permitted.</p> <p>McCaughey 1C172-MDM7647 to 7656 (Eligible on s/n 24, 46-94, 1C-11C, 1S-3S, 1T-3T) (Eligible on s/n 3-23, 25-45 when modified per Maule Modification Kit No. 36)</p> <p>Diameter: Not over 76 in., not under 74.5 in. No further reduction permitted.</p> <p>Static rpm at maximum permissible throttle setting: Not over 2250, not under 2100 No additional tolerance permitted.</p>

Airspeed limits (CAS)	<u>Landplane and Skiplane:</u> (See NOTE 11)		
C.G. range	<u>Landplane:</u> (+15.0) to (+23.0) at 2100 lbs. (+11.0) to (+23.0) at 1400 lbs. or less NOTE: With fuel in optional auxiliary tanks, aft C.G. restricted to (+18.0). See Service Bulletin No. 18, Airplane Flight Manual Supplement (AFMS) No. 4 is required.		
	<u>Skiplane:</u> Models M-4, M-4C with 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 with FluiDyne A2000A Skis (+15.0) to (+23.0) at 2100 lbs. (+11.0) to (+23.0) at 1400 lbs. or less Straight line variation between points given.		
Empty weight C.G. range	None		
Maximum weight	<u>Landplane:</u> 2100 lbs. <u>Skiplane:</u> 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), 175 lbs. (+42) (M-4C, M-4S, M-4T) 125 lbs. (+70) (M-4C, M-4S)		
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 qt. (-37), 4 qt. Minimum (See NOTE 1 for data on system oil.)		
Control surface movements	Wing flaps	Down	1st Notch 15° ±3° 2nd Notch 35° ±3°
	Aileron	Up 20° ± 1	Down 20° ±1°
	Elevator	Up 25° ± 2°	Down 21° ±1°
	Elevator tab	Up 14° ± 1°	Down 25° ±1° (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 8° + 2°/-1°	Down 25° ±1° (M-4, s/n 44-94, unless modified by Maule SL#9 dated 11/8/65)
		Up 11° ± 3°	Down 25° ±1° (All M-4C, S, and T and M-4, s/n 3-94 modified by Maule SL#9 dated 11/8/65)
	Rudder	Right 21° ±1°	Left 21° ±1°
	Rudder tab	Right 48° ±4°	Left 48° ±4°
Serial numbers eligible	Model Bee Dee M-4, 3-14 Model M-4, 15-94 Model M-4C, 1C-3C Model M-4S, 1S-3S Model M-4T, 1T-3T		
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 IO-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	<p><u>IO-360-A:</u> 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.</p> <p><u>IO-360-D:</u> F.T. all operations 210 hp - 2800 rpm</p>
Propeller and propeller limits	<p>McCaughey constant speed model D2A3467/76C-2 (used on A engine) or D2A34C67N/S76C-2 (used on A or D engine) Diameter: 74 in., no further reduction permitted. Pitch settings at 30 in. sta.: low 12.5° high 23° Spinner: Cessna 0552016-1 McCaughey D-2771-1 assembly (used on A or D eng.) Governor (hydraulic): Woodward F210452 or B210680</p>
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<p><u>Landplane:</u> 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.</p> <p><u>Skiplane:</u> Models M-4-210, M-4-210C with Fli-Lite 3000 MK IIIA Skis: (+13.0) to (+23.0) at 2100 lbs. (+10.6) to (+23.0) at 1550 lbs. or less Models M-4-210, M-4-210C with 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 with Federal C2200H or C3000H Skis: (+12.6) to (+18.4) at 2100 lbs. (+9.6) to (+18.4) at 1620 lbs. or less</p> <p><u>Floatplane:</u> 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 Straight line variation between points given.</p>
Empty weight C.G. range	None
Maximum weight	<p><u>Landplane:</u> 2300 lbs. or 2100 lbs. (Reference C.G. Range-landplane) <u>Skiplane:</u> 2100 lbs. <u>Floatplane:</u> Fleet 2500, EDO 248A2440 or 248B2440 Floats: 2300 lbs. CAP 62-2000 Floats: 2220 lbs.</p>
Number of seats	4 (2 at +18 to +21, 2 at +53)(M-4-210, M-4-210C)
Maximum baggage	<p>100 lbs. (+72)(M-4-210) 100 lbs. (+20), 175 lbs. (+42)(M-4-210C) 125 lbs. (+70)(M-4-210C)</p>
Fuel capacity	<p>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)</p>

(Fuel in the 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 $15^{\circ} \pm 3^{\circ}$ 2nd Notch $35^{\circ} \pm 3^{\circ}$
	Aileron	Up $20^{\circ} \pm 1^{\circ}$	Down $20^{\circ} \pm 1^{\circ}$
	Elevator	Up $25^{\circ} \pm 2^{\circ}$	Down $21^{\circ} \pm 1^{\circ}$
	Elevator tab	Up $11^{\circ} \pm 3^{\circ}$	Down $25^{\circ} \pm 1^{\circ}$ (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 $8^{\circ} + 2^{\circ} / - 1^{\circ}$	Down $25^{\circ} \pm 1^{\circ}$ (M-4-210, s/n 1001-1050 unless modified per Maule SL#9 dated 11/8/65)
	Rudder	Right $21^{\circ} \pm 1^{\circ}$	Left $21^{\circ} \pm 1^{\circ}$
	Rudder tab	Right $48^{\circ} \pm 4^{\circ}$	Left $48^{\circ} \pm 4^{\circ}$
Serial numbers eligible	Model M-4-210, 1001-1045 Model M-4-210C, 1001C-1117C Model M-4-210S, 1001S and up (none built) Model M-4-210T, 1001T and up (none built)		
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 12.8° high 23.1°		
	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 11.5° high 22°		
	Spinner: McCauley D4101 assembly		
	NOTE: This installation also requires incorporation of Maule Drawings 5030F, rev. D, 5090B, rev. D, and 5043F, rev. G or later revisions.		
	Governor: Woodward 210453 or 210660		
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)		
C.G. range	<u>Landplane:</u>		
	(+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		
	NOTE: With fuel in optional wing auxiliary tanks, aft C.G. restricted to +18.0.		
	<u>Skiplane:</u>		
	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:		

Airspeed limits (CAS)	<u>Landplane:</u>	(See NOTE 11)	
C.G. Range	<u>Landplane:</u>	(+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. NOTE: With fuel in optional wing auxiliary tanks, aft C.G. restricted to (+18.0). See Service Bulletin No. 18, AFMS No. 2 is required.	
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)		
Maximum baggage	100 lbs. (+20), 175 lbs. (+42) (M-4-180C) 125 lbs. (+70) (M-4-180C)		
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 1 for data on system oil.)		
Control surface movements	Wing flaps	Down	1st Notch 15° ±3° 2nd Notch 35° ±3°
	Aileron	Up 20° ±1°	Down 20° ±1°
	Elevator	Up 25° ±2°	Down 21° ±1°
	Elevator tab	Up 11° ±3°	Down 25° ±1°
	Rudder	Right 21° ±1°	Left 21° ±1°
	Rudder tab	Right 48° ±4°	Left 48° ±4°
Serial numbers eligible	Model M-4-180C, 3001C-3006C Model M-4-180S, 3001S and up (None built) Model M-4-180T, 3001T and up (None built)		
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 12.5° high 23° Spinner: McCauley spinner assembly D-2771-1 Governor (hydraulic): Woodward B210680 or F210452
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+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

Floatplane: EDO 248A2440 or 248B2440 Floats:
 (+16.0) to (+18.0) at 2300 lbs.
 (+12.0) to (+18.0) at 1600 lbs. or less
 EDO 248B2400 Floats with modification per Maule Drawing 9173A:
 (+15.6) to (+19.0) at 2500 lbs.
 (+12.0) to (+19.0) 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.	
	Floatplane modified per 9173A:	2500 lbs.	
Number of seats	4 (2 at +20, 2 at +50)		
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 16 if Modification Kit No. 15 is installed. (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 15° ±3° 2nd Notch 35° ±3°
	Modified per Maule SL#46	Down	1st Notch 20° ±3° 2nd Notch 40° ±3°
	Aileron	Up 20° ±1°	Down 20° ±1°
	Elevator	Up 25° ±2°	Down 21° ±1°
	Elevator tab	Up 12° ±4°	Down 29° ±2°
	Rudder	Right 21° ±1°	Left 21° ±1°
	Rudder tab	Right 48° ±4°	Left 48° ±4°
Serial numbers eligible	Model M-5-210C, 6001C-6206C (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	McCaughey constant speed model 2A34C22-N/S84SF-6 or -8

propeller limits	Diameter: Not over 78 in., not under 74.5 in. Pitch settings at 30 in. sta.: low 11.5° high 22° Spinner: McCauley D4180 with C4181 bulkhead assembly, B3243 front support, B3410-16 or -32 shim Governor: Woodward 210453 or 210660		
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)		
C.G. range	<u>Landplane:</u>	(+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	
	<u>Floatplane:</u>	EDO 248A2440 or 248B2440 Floats: (+16.0) to (+18.0) at 2300 lbs. (+12.0) to (+18.0) at 1600 lbs. or less EDO 248B2400 Floats with modification per Maule Drawing 9173A: (+15.6) to (+19.0) at 2500 lbs. (+12.0) to (+19.0) 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.	
	<u>Skiplane:</u>	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.	
	Floatplane modified per 9173A:	2500 lbs.	
Number of seats	4 (2 at 15.1 to +18.1, 2 at 50)		
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 16 if Modification Kit No. 15 is installed. (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 15° ±3° 2nd Notch 35° ±3°
	Modified per Maule SL#48	Down	1st Notch 20° ±3° 2nd Notch 40° ±3°
	Aileron	Up 20° ±1°	Down 20° ±1°
	Elevator	Up 25° ±2°	Down 21° ±1°
	Elevator tab	Up 12° ±4°	Down 29° ±2°
	Rudder	Right 21° ±1°	Left 21° ±1°
	Rudder tab	Right 48° ±4°	Left 48° ±4°
Serial numbers eligible	Model M-5-220C, 5001C-5057C. (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	(See NOTE 14)
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> 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 or -S/n 7001C-7320C, 7322C-7346C, 7348C, 7349Cmodified per 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 <u>Floatplane:</u> 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, Aqua 2400, or EDO 797-2500 amphibious Floats (Floatplanes modified per Maule drawing 9143A (B2440's), 9166A (2400's) or 9057A (amphibs)): (+14.0) to (+19.0) at 2750 lbs. (+10.5) to (+19.0) at 1600 lbs. or less <u>Skiplane:</u> 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 or C3000H Skis (Skiplanes modified per Maule drawing 9158A for C3000M or 9174A, Rev. C or later for C3000H): (+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	<u>Landplane:</u> 2300 lbs. <u>Floatplane:</u> 2530 lbs. (EDO 2440 only), 2500 lbs. (PeeKay 2300) <u>Skiplane:</u> 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 B2440), 9166A(Aqua 2400), or 9057A (EDO amphib):	2750 lbs.						
	Skiplanes modified per Maule drawing 9081A (Fli-Lites), 9158A (C3000M), or 9174A (C3000H):	2500 lbs.						
Number of seats	4 (2 at +20, 2 at +50)							
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 16 if Modification Kit No. 15 is installed. (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	<p>Wing flaps (s/n 7001C-7320C, 7322C-7346C, 7348C-7350C, 7352C-7362C, 7364C-7368C):</p> <table border="0"> <tr> <td>Down</td> <td>1st Notch $15^{\circ} \pm 3^{\circ}$</td> <td>2nd Notch $35^{\circ} \pm 3^{\circ}$</td> </tr> </table> <p>(s/n 7321C, 7347C, 7351C, 7363C, 7369C and up and airplanes modified per Maule SL#44):</p> <table border="0"> <tr> <td>Down</td> <td>1st Notch $20^{\circ} \pm 3^{\circ}$</td> <td>2nd Notch $40^{\circ} \pm 3^{\circ}$</td> </tr> </table> <p>Aileron Up $20^{\circ} \pm 1^{\circ}$ Down $20^{\circ} \pm 1^{\circ}$ Elevator Up $25^{\circ} \pm 2^{\circ}$ Down $21^{\circ} \pm 1^{\circ}$ Elevator tab Up $12^{\circ} \pm 4^{\circ}$ Down $29^{\circ} \pm 2^{\circ}$ Elevator tab w/piano hinge Up $12^{\circ} \pm 2^{\circ}$ Down $38^{\circ} \pm 2^{\circ}$ Rudder Right $21^{\circ} \pm 1^{\circ}$ Left $21^{\circ} \pm 1^{\circ}$ Rudder tab Right $48^{\circ} \pm 4^{\circ}$ Left $48^{\circ} \pm 4^{\circ}$</p>		Down	1st Notch $15^{\circ} \pm 3^{\circ}$	2nd Notch $35^{\circ} \pm 3^{\circ}$	Down	1st Notch $20^{\circ} \pm 3^{\circ}$	2nd Notch $40^{\circ} \pm 3^{\circ}$
Down	1st Notch $15^{\circ} \pm 3^{\circ}$	2nd Notch $35^{\circ} \pm 3^{\circ}$						
Down	1st Notch $20^{\circ} \pm 3^{\circ}$	2nd Notch $40^{\circ} \pm 3^{\circ}$						
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.) 'A' was not used on later serial numbers with this engine.							
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 12° high 27.8° to 29.8° Avoid continuous operation between 2000 and 2250 rpm. Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681 McCaughey C290D3(X)/T29 or DC290D1(X)/T12
Airspeed limits (CAS)	<u>Landplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+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 +50)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 16 if Modification Kit No. 15 is installed. (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 $15^{\circ} \pm 3^{\circ}$ 2nd Notch $35^{\circ} \pm 3^{\circ}$ (s/n 8023C and up and airplanes modified per Maule SL#49): Down 1st Notch $20^{\circ} \pm 3^{\circ}$ 2nd Notch $40^{\circ} \pm 3^{\circ}$ Aileron Up $20^{\circ} \pm 1^{\circ}$ Down $20^{\circ} \pm 1^{\circ}$ Elevator Up $25^{\circ} \pm 2^{\circ}$ Down $21^{\circ} \pm 1^{\circ}$ Elevator tab Up $12^{\circ} \pm 4^{\circ}$ Down $29^{\circ} \pm 2^{\circ}$ w/piano hinge Up $12^{\circ} \pm 2^{\circ}$ Down $38^{\circ} \pm 2^{\circ}$ Rudder Right $21^{\circ} \pm 1^{\circ}$ Left $21^{\circ} \pm 1^{\circ}$ Rudder tab Right $48^{\circ} \pm 4^{\circ}$ Left $48^{\circ} \pm 4^{\circ}$
Serial numbers eligible	Model M-5-180C, 8001C-8014C, 8016C-8019C, 8021C, 8023C-8042C, 8044C-8064C, 8068C-8094C
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. IO-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 $15^{\circ} \pm 0.1^{\circ}$ high 30° to 33° Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward C210681
Airspeed limits (CAS)	<u>Landplane and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.5) at 2300 lbs. (+12.0) to (+20.5) at 1700 lbs. or less <u>Skiplane</u> 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 +50)

Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 16 if Modification Kit No. 15 is installed. (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 $15^{\circ} \pm 3^{\circ}$ 2nd Notch $35^{\circ} \pm 3^{\circ}$ (s/n 9011C and up and airplanes modified per Maule SL#47): Down 1st Notch $20^{\circ} \pm 3^{\circ}$ 2nd Notch $40^{\circ} \pm 3^{\circ}$ Aileron Up $20^{\circ} \pm 1^{\circ}$ Down $20^{\circ} \pm 1^{\circ}$ Elevator Up $25^{\circ} \pm 2^{\circ}$ Down $21^{\circ} \pm 1^{\circ}$ Elevator tab Up $12^{\circ} \pm 4^{\circ}$ Down $29^{\circ} \pm 2^{\circ}$ Rudder Right $21^{\circ} \pm 1^{\circ}$ Left $21^{\circ} \pm 1^{\circ}$ Rudder tab Right $48^{\circ} \pm 4^{\circ}$ Left $48^{\circ} \pm 4^{\circ}$
Serial numbers eligible	Model M-5-210TC, 9001C-9010C	
Production basis	(No longer in production)	

X. Model M-6-235, 4/5*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	Lycomin	O-540-J1A5D, O-540-J3A5, IO-540-W1A5D, IO-540-W1A5 or O-540-B4B5g
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	(See NOTE 14)	
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)	
C.G. range	<u>Landplane:</u>	(+15.0) to (+20.5) at 2500 lbs. (+11.0) to (+20.5) at 1700 lbs. or less
	<u>Floatplane:</u>	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 2750 lbs. (+10.5) to (+19.0) at 1600 lbs. or less Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less Wipline 2350 amphibious Floats*** (+14.1) to (+19.0) at 2500 lbs. (+12.6) to (+19.0) at 2090 lbs. or less
	<u>Skiplane:</u>	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 *Not applicable s/n 7474C and up **Not applicable s/n 7466C, 7468C-7473C ***Not applicable s/n 7249C, 7356C-7465C Straight line variation between points given.
Empty weight	
C.G. range	None
Maximum weight	Landplane: 2500 lbs. Floatplane: 2750 lbs. Skiplane: Fli-Lite 3000/C2200H/C3000H/AH/M: 2500 lbs. FluiDyne A2500A: 2300 lbs.
Number of seats	4 (2 at +20, 2 at +53) S/n 7474C and up: Optional: 5 (2 at +20.0, 2 at +53, 1 at +78)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 lbs. (+70)
Fuel capacity	43 gal. (40 gal. usable; two 21.5 gal. tanks in wings at +24) For S/n 7249C, 7356C-7472C w/ MK#27 and S/n 7473C and up: 47.6 gal. (43 gal. usable; two 23.8 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), or With Modification Kit 33 installed: Optional wing auxiliary tanks 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-6-235, s/n 7249C, 7356C, 7379C-7444C, 7446C-7450C, 7452C-7459C, 7461C-7466C, 7468C, 7469C, 7471C-7475C, 7488C-7514C, 7516C-7522C
Production basis	(No longer in production.)

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 12° high 27.8° to 29.8° Avoid continuous operation between 2000 and 2250 rpm. Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681 McCaughey DC290D1(X)T12 or C290D3(X)T29
Airspeed limits (CAS)	<u>Landplane:</u> (See NOTE 11)

C.G. range	<u>Landplane:</u>	(+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 +53)
Maximum baggage		100 lbs. (+20), 175lbs. (+42), 125 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
Production basis		(No longer in production.)

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 12° high 30° to 33° Do not exceed 24 in. manifold pressure below 2350 rpm. Spinner: Hartzell spinner assembly A2298-2P Governor: Woodward K210681
Airspeed limits (CAS)	<u>Landplane:</u>	(See NOTE 11)
C.G. range	<u>Landplane:</u>	(+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 +53)
Maximum baggage		100 lbs. (+20), 175lbs. (+42), 125 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 16 if Modification Kit No. 15 is installed. (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 $20^{\circ} \pm 3^{\circ}$ 2nd Notch $40^{\circ} \pm 3^{\circ}$
	Aileron	Up $20^{\circ} \pm 1^{\circ}$	Down $20^{\circ} \pm 1^{\circ}$
	Elevator	Up $25^{\circ} \pm 2^{\circ}$	Down $21^{\circ} \pm 1^{\circ}$
	Elevator tab	Up 8° to 16°	Down $29^{\circ} \pm 2^{\circ}$
	Rudder	Right $21^{\circ} \pm 1^{\circ}$	Left $21^{\circ} \pm 1^{\circ}$
Serial numbers eligible	Rudder tab	Right $48^{\circ} \pm 4^{\circ}$	Left $48^{\circ} \pm 4^{\circ}$
	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-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	(See NOTE 14)		
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)		
C.G. range	<u>Landplane:</u>	(+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less	
	<u>Floatplane:</u>	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 (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) at 1600 lbs. or less Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less	
	<u>Skiplane:</u>	Fli-Lite 3000 MK IIIA Skis (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less FluiDyne C3000H and C3000M 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.	
Maximum weight	<u>Landplane:</u>	2500 lbs.	
	<u>Floatplane:</u>	2750 lbs.	
	<u>Skiplane:</u>	2500 lbs.	
Number of seats	5(2 at +20, 2 at +53, 1 at +83)		
Empty weight C.G. range	None		
Maximum baggage	100 lbs. (+20), 175 lbs. (+42), 125 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-4132C; With STC SA2661SO, s/n 12001C and 12002C (also known as Model M-7-420)
Production basis	(No longer in production.)

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-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	(See NOTE 14)
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1700 lbs. or less <u>Floatplane:</u> EDO 797-2500 amphibious or 248B2440: (+14.3) to (+19.0) at 2750 lbs. (+12.3) to (+19.0) at 2100 lbs. or less Wipline 2350 amphibious Floats (+14.1) to (+19.0) at 2500 lbs. (+12.6) to (+19.0) at 2090 lbs. or less Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less <u>Skiplane:</u> FluiDyne C3000H: (+15.0) to (+19.0) at 2500 lbs. (+11.0) to (+19.0) at 1840 lbs. or less FliLite 3000 MK IIIA: (+15.0) to (+19.0) at 2500 lbs. (+11.0) to (+19.0) at 1700 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	Landplane: 2500 lbs. Floatplane: 2750 lbs. Skiplane: 2500 lbs.
Number of seats	4 (2 at +20, 2 at +53) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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

Control surface movements	O-540: 12 qt. (-34), 9 qt. Minimum (See NOTE 1 for data on system oil.) (See NOTE 12)
Serial numbers eligible	Model MX-7-235, s/n 10001C-10122C
Production basis	(No longer in production.)

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 in. sta.: low 12° high 27.8° to 29.8° Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681 McCauley C290D3(X)/T29 or DC290D1(X)/T12
Airspeed limits (IAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+16.7) to (+20.5) at 2500 lbs. (+13.6) to (+20.5) at 1600 lbs. or less <u>Floatplane:</u> Aqua 2200 Floats: (+13.9) to (+20.5) at 2500 lbs. (+10.5) 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 +53) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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-11097C
Production basis	(No longer in production.)

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	Rolls-Royce Corp. (Allison) Gas Turbine 250-B17C
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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 4°C (40°F), 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 or HC-B3TF-7A/T10173-21R Diameter: 80.5 - 78 inches Pitch settings at 30" sta.: Reverse pitch -15° ±5° feather 81.1° ±5° Spinner: Hartzell spinner assembly A3640P
Maximum operating altitude		20,000 feet
Airspeed limits (CAS)		<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u>	(+15.0) to (+20.0) at 2500 lbs. (+12.0) to (+20.0) at 1700 lbs. or less
	<u>Floatplane:</u>	Wipline 2350 Amphibious: (+14.1) to (+18.5) at 2500 lbs. (+12.6) to (+18.5) at 2090 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 +53) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage		100 lbs. (+20), 175lbs. (+42), 125 lbs. (+70)
Fuel capacity		43 gal. (40.6 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-13003C
Production basis		(No longer in production.)

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	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 in. sta.: low 12° high 27.8° to 29.8° Avoid continuous operation between 2000 and 2250 rpm. McCaughey constant speed 3-blade model B3D32C414-C/G-82NDA-8 Diameter: 74 in. Pitch settings at 30" sta: low 10.6° ±0.2° high 27.5° ±0.5° Avoid continuous operation below 10 inches HG between 1900 and 2300 rpm. Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only) McCaughey spinner assembly D-6240 (use with McCaughey propeller only) Governor: Woodward H210681 McCaughey C290D3(X)/T29 or DC290D1(X)/T12
Airspeed limits (IAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.9) to (+20.5) at 2500 lbs. (+12.4) to (+20.5) at 1740 lbs. or less <u>Floatplane:</u> Aqua 2200 Floats: (+13.9) to (+20.5) at 2500 lbs. (+10.5) 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 +53) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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**, 4/5 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 Hartzell constant speed 3-blade model HC-C3YR-1RF/F7693(F)-(2) Diameter: -3R: Not over 81 in.; not under 77 in. -6R: Not over 78 in.; not under 77 in.

	F7693: Not over 78 in.; not under 76 in.
	Pitch settings at 30" sta.: -3R: low $16^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ -6R: low $16.7^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ F7693: low $14.2^{\circ} \pm 1^{\circ}$ high $31^{\circ} \pm 1^{\circ}$
	-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 $15.0^{\circ} \pm 0.2^{\circ}$ high $30.0^{\circ} \pm 0.5^{\circ}$
	-4 (78"): low $15.7^{\circ} \pm 0.2^{\circ}$ high $30.0^{\circ} \pm 0.5^{\circ}$
	-9 (81"): low $14.7^{\circ} \pm 0.2^{\circ}$ high $24.6^{\circ} \pm 0.5^{\circ}$
	Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell 2 blade propeller only)
	Hartzell spinner assembly C-3535-1P (use with Hartzell 3-blade prop 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 C290D3(X)/T30 or DC290D1(X)/T14
Airspeed limits (IAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1800 lbs. or less
	<u>Floatplane:</u> Aqua 2400 Floats (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) at 1600 lbs. or less Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 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) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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, 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	(See NOTE 14)
Airspeed limits (CAS)	<u>Landplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1760 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 +53) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 Lycoming 0-320-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 74DM7S5-0-52 or -54 or -56 (74" Dia.) or Sensenich fixed pitch 74DM7S8-0-52 or -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 (-54 or -56) Not over 2620 rpm, not under 2520 rpm (-52) Spinner: Sensenich spinner assembly S74DM
Airspeed limits (IAS)	<u>Landplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.4) to (+20.5) at 2200 lbs. (+12.5) 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	4 (2 at +20, 2 at +53)

Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 Lycoming 0-320-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 74DM7S5-0-52 or -54 or -56 (74" Dia.) or Sensenich fixed pitch 74DM7S8-0-52 or -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 (-54 or -56) Not over 2620 rpm, not under 2520 rpm (-52) Spinner: Sensenich spinner assembly S74DM
Airspeed limits (IAS)	<u>Landplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.4) to (+20.5) at 2200 lbs. (+12.5) to (+20.5) at 1600 lbs. or less <u>Floatplane:</u> Aqua 2200 Floats: (+14.6) to (+20.5) at 2200 lbs. (+13.5) 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	4 (2 at +20, 2 at +53) Optional: 2 (2 at +20)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 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 0-360-C1F or 0-360-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.) or 76EM8S8-0-56 (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 S76EM
 Airspeed limits (IAS) Landplane: (See NOTE 11)
 C.G. range Landplane: (+15.9) to (+20.5) at 2400 lbs.
 (+12.4) to (+20.5) at 1740 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 +53)
 Maximum baggage 100 lbs. at (+20), 175lbs. (+42), 125 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 0-360-C1F or 0-360-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.) or 76EM8S8-0-56 (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 S76EM
 Airspeed limits (IAS) Landplane and Floatplane: (See NOTE 11)

C.G. range	<u>Landplane:</u> (+15.9) to (+20.5) at 2400 lbs. (+12.4) to (+20.5) at 1740 lbs. or less
	<u>Floatplane:</u> Aqua 2200 Floats: (+15.0) to (+20.5) at 2400 lbs. (+13.5) 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 +53)
Maximum baggage	100 lbs. at (+20), 175lbs. (+42), 125 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-7-180A, 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 Lycoming 0-360-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. no further reduction permitted. Pitch settings at 30 in. 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 C290D3(X)/T29 or DC290D1(X)/T12
Airspeed limits (IAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.9) to (+20.5) at 2500 lbs. (+12.4) to (+20.5) at 1740 lbs. or less Straight line variation between points given.
Empty weight C.G. range	<u>Floatplane:</u> See appropriate AFMS for C.G. range for different float installations. None
Maximum weight	2500 lbs.
Number of seats	4 (2 at +20, 2 at +53) Optional: 5 (2 at +20, 2 at +53, 1 at +78)

Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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 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, Model deleted from TC January 7, 2003

Model MXT-7-420 removed from the type certificate per Maule Aerospace Technology's request. One serial number airplane of this model was built and has now been dismantled.

XXVI. Model M-7-235B, 4/5 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-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	(See NOTE 14)
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less <u>Floatplane:</u> EDO 797-2500 amphibious or 248B2440: (+14.0) to (+19.0) at 2750 lbs. (+12.5) to (+19.0) at 2400 lbs. or less Aqua 2400 Floats (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) at 1600 lbs. or less Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less <u>Skiplane:</u> FliLite 3000 MK IIIA: (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less FluiDyne C3000H: (+15.0) to (+19.5) at 2500 lbs. (+11.5) to (+19.5) at 1700 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	<u>Landplane:</u> 2500 lbs. <u>Floatplane:</u> 2750 lbs. <u>Skiplane:</u> 2500 lbs.

Number of seats	5 (2 at +20, 2 at +53, 1 at +83) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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, 4/5 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	(See NOTE 14)
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less <u>Floatplane:</u> Aqua 2400 Floats (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) at 1600 lbs. or less <u>Skiplane:</u> FluiDyne C3000H: (+15.0) to (+19.5) at 2500 lbs. (+11.5) to (+19.5) at 1700 lbs. or less Straight line variation between points given.
Empty weight C.G. range	None
Maximum weight	Landplane: 2500 lbs. Floatplane: 2750 lbs. Skiplane: 2500 lbs.
Number of seats	5 (2 at +20, 2 at +53, 1 at +83) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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-7-235A, s/n 24001C and up
Production basis	Production Certificate No. 11S0

XXVIII. Model **M-7-235C**, 4/5 PCLM (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, 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	(See NOTE 14)
Airspeed limits (CAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.5) at 2500 lbs. (+12.0) to (+20.5) at 1760 lbs. or less <u>Floatplane:</u> EDO 797-2500 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.5) to (+19.0) at 2400 lbs. or less Aqua 2400 Floats (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) at 1600 lbs. or less Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 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) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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-7-235C, s/n 25001C and up, except s/n 25112C is not eligible (no standard certificate of airworthiness was issued per customer's request before aircraft was exported.)
Production basis	Production Certificate No. 11S0

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 Lycoming 0-360-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. no further reduction permitted. Pitch settings at 30 in. 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 C290D3(X)/T29 or DC290D1(X)/T12
Airspeed limits (IAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.9) to (+20.5) at 2500 lbs. (+12.4) to (+20.5) at 1740 lbs. or less <u>Floatplane:</u> Aqua 2200 Floats (+13.9) to (+20.5) at 2500 lbs. (+10.5) to (+20.5) at 1600 lbs. or less Wipline 2350 amphibious Floats (+15.0) to (+19.0) at 2500 lbs. (+13.5) to (+19.0) at 2090 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 +53) Optional: 5 (2 at +20, 2 at +53, 1 at +78)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 lbs. (+70)
Fuel capacity	47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) or 43 gal. (40 gal. usable; two 21.5 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 MX-7-180C, s/n 28001C and up
Production basis	Production Certificate No. 11S0

XXX. Model M-7-260, 4/5 PCLM (Normal Category) Approved April 17, 1998

(Same as M-7-235B except engine and propeller.)

Engine	Lycoming IO-540-V4A5
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	260 hp at 2700 rpm, full throttle continuous

Propeller and propeller limits	(See NOTE 15)
Airspeed limits (IAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less <u>Floatplane:</u> Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less Aqua 2400 Floats (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) 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) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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	8 qt. (-34), 5 qt. minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-7-260, s/n 26001C and up
Production basis	Production Certificate No. 11S0

XXXI. Model **MT-7-260**, 4/5 PCLM (Normal Category) Approved April 17, 1998

(Same as MT-7-235 except engine and propeller.)

Engine	Lycoming IO-540-V4A5
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	260 hp at 2700 rpm, full throttle continuous
Propeller and propeller limits	(See NOTE 15)
Airspeed limits (IAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less <u>Floatplane:</u> Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less Aqua 2400 Floats (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) 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) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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	8 qt. (-34), 5 qt. minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MT-7-260, s/n 27001C and up
Production basis	Production Certificate No. 11S0

XXXII. Model M-7-260C, 4/5 PCLM (Normal Category) Approved October 19, 1998

(Same as M-7-235C except engine and propeller.)

Engine	Lycoming IO-540-V4A5
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	260 hp at 2700 rpm, full throttle continuous
Propeller and propeller limits	(See NOTE 15)
Airspeed limits (IAS)	<u>Landplane, Floatplane, and Skiplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.0) at 2500 lbs. (+12.5) to (+20.0) at 1700 lbs. or less <u>Floatplane:</u> Wipline 3000 amphibious Floats (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less Aqua 2400 Floats (+15.0) to (+20.0) at 2750 lbs. (+12.5) to (+20.0) 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) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 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	8 qt. (-34), 5 qt. minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-7-260C, s/n 30001C and up
Production basis	Production Certificate No. 11S0

XXXIII. Model **M-7-420AC**, 4/5 PCLM (Normal Category) Approved December 17, 1998

(Same as M-7-235A except for main landing gear, flap ratchet, nacelle, engine, and propeller.)

Engine	Rolls-Royce Corp. (Allison) Gas Turbine 250-B17C
Fuel	<p>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</p> <p>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)</p> <p>Cold Weather: To assure consistent starts below 4°C (40°F), 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.)</p>
Engine limits	369 hp - 90 psi torque, at 2030 rpm continuous
Propeller and propeller limits	<p>Hartzell, constant speed, full-feathering beta, model HC-B3TF-7A/T10173F-21R</p> <p>Diameter: 80.5 - 78 inches</p> <p>Pitch settings at 30" sta.:</p> <p>Reverse pitch $-15^{\circ} \pm 5^{\circ}$ feather $81.1^{\circ} \pm 5^{\circ}$</p> <p>Spinner: Hartzell spinner assembly A3640P</p>
Maximum operating altitude	20,000 feet
Airspeed limits (CAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<p><u>Landplane:</u> (+15.0) to (+20.5) at 2500 lbs. (+13.1) to (+20.5) at 2090 lbs. or less</p> <p><u>Floatplane:</u> Wipline 3000 Amphibious: (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 lbs. or less Straight line variation between points given.</p>
Empty weight C.G. range	None
Maximum weight	<p>Landplane: 2500 lbs.</p> <p>Floatplane: 2750 lbs.</p>
Number of seats	5 (2 at +20, 2 at +53, 1 at +83) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 lbs. (+72)
Fuel capacity	47.6 gal. (43 gal. usable, two 23.8 gal. tanks in wings at +24 - considered one tank) Optional wing auxiliary tanks, 42 gal. (42 usable; two 21 gal. tanks in wings at + 24). (See NOTE 1 for data on fuel system.)

Oil capacity	10 qt. (-22.5), 9 qts. Minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-7-420AC, s/n 29001C and up
Production basis	Production Certificate No. 11S0

XXXIV. Model MX-7-160C, 4 PCLM (Normal Category), Approved March 12, 1999

(Same as MX-7-160, except for spring aluminum main landing gear.)

Engine	Lycoming Lycoming 0-320-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 74DM7S5-0-52 or -54 or -56 (74" Dia.) or Sensenich fixed pitch 74DM7S8-0-52 or -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 (-54 or -56) Not over 2620 rpm, not under 2520 rpm (-52) Spinner: Sensenich spinner assembly S74DM
Airspeed limits (IAS)	<u>Landplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.4) to (+20.5) at 2200 lbs. (+12.5) to (+20.5) at 1600 lbs. or less <u>Floatplane:</u> Aqua 2200 Floats (+14.6) to (+20.5) at 2200 lbs. (+13.5) 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	4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 lbs. (+70)
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	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-160C, s/n 34001C and up
Production basis	Production Certificate No. 11S0

XXXV. Model MX-7-180AC, 4/5 PCLM (Normal Category), Approved May 4, 2000

(Same as MX-7-180A, except for aluminum spring main landing gear.)

Engine	Lycoming 0-360-C1F or 0-360-C4F
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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.) or 76EM8S8-0-56 (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 S76EM
Airspeed limits (IAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.9) to (+20.5) at 2400 lbs. (+12.4) to (+20.5) at 1740 lbs. or less <u>Floatplane:</u> Aqua 2200 Floats (+15.0) to (+20.5) at 2400 lbs. (+13.5) 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 +53) Optional: 5(2 at +20, 2 at +53, 1 at +78)
Maximum baggage	100 lbs. at (+20), 175lbs. (+42), 125 lbs. (+70)
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 wing 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	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MX-7-180AC, s/n 33001C and up
Production basis	Production Certificate No. 11S0

XXXVI. Model M-7-420A, 4/5 PCLM (Normal Category) Approved November 20, 2000

(Same as M-7-420AC except conventional oleo main landing gear.)

Engine	Rolls-Royce Corp. (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 4°C (40°F), 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 Or HC-B3TF-7A/T10173-21R

	Diameter: 80.5 - 78 inches Pitch settings at 30" sta.: Reverse pitch $-15^{\circ} \pm 5^{\circ}$ feather $81.1^{\circ} \pm 5^{\circ}$ Spinner: Hartzell spinner assembly A3640P
Maximum operating altitude	20,000 feet
Airspeed limits (CAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+15.0) to (+20.5) at 2500 lbs. (+13.1) to (+20.5) at 2090 lbs. or less <u>Floatplane:</u> Wipline 3000 Amphibious: (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 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) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 lbs. (+72)
Fuel capacity	47.6 gal. (43 gal. usable, two 23.8 gal. tanks in wings at +24 - considered one tank) Optional wing auxiliary tanks, 42 gal. (42 usable; two 21 gal. tanks in wings at + 24). (See NOTE 1 for data on fuel system.)
Oil capacity	10 qt. (-22.5), 9 qts. Minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model M-7-420A, s/n 35001C and up
Production basis	Production Certificate No. 11S0
XXXVII. Model MT-7-420, 4/5 PCLM (Normal Category) Approved January 6, 2003, Application date September 16, 2002 (Same as MT-7-260 except for nacelle, engine, propeller.)	
Engine	Rolls-Royce Corp. (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 4°C (40°F), 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 or HC-B3TF-7A/T10173-21R Diameter: 80.5 - 78 inches

	Pitch settings at 30" sta.: Reverse pitch $-15^{\circ} \pm 5^{\circ}$ feather $81.1^{\circ} \pm 5^{\circ}$ Spinner: Hartzell spinner assembly A3640P
Maximum operating altitude	20,000 feet
Airspeed limits (CAS)	<u>Landplane and Floatplane:</u> (See NOTE 11)
C.G. range	<u>Landplane:</u> (+16.0) to (+20.5) at 2500 lbs. (+13.0) to (+20.5) at 1700 lbs. or less <u>Floatplane:</u> Wipline 3000 Amphibious: (+14.0) to (+19.0) at 2750 lbs. (+12.0) to (+19.0) at 2100 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) Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 175lbs. (+42), 125 lbs. (+72)
Fuel capacity	47.6 gal. (43 gal. usable, two 23.8 gal. tanks in wings at +24 - considered one tank) Optional wing auxiliary tanks, 42 gal. (42 usable; two 21 gal. tanks in wings at + 24). (See NOTE 1 for data on fuel system.)
Oil capacity	10 qt. (-22.5), 9 qts. Minimum (See NOTE 1 for data on oil system.)
Control surface movements	(See NOTE 12)
Serial numbers eligible	Model MT-7-420, s/n 51001C and up
Production basis	Production Certificate No. 11S0
XXXVIII. Model M-4-180V, 2 PCLM (Normal Category) Approved September 6, 2005, Application date July 8, 2004	
(Same as MX-7-180 except for M-4 tail, M-4 maximum weight, seat capacity (2) and door quantity (2))	
Engine	Lycoming 0-360-C1F or 0-360-C4F
Fuel	100/100LL minimum grade aviation gasoline
Engine limits	180 hp at 2700 rpm, full throttle continuous
Propeller and propeller limits	Hartzell constant speed model HC-C2YR-1BF/F7666A (eligible on O-360-C1F only) Diameter: Not over 76 in., not under 72 in. Pitch settings at 30 in. sta.: low 12° high 27.8° to 29.8° Avoid continuous operation between 2000 rpm and 2250 rpm Spinner: Hartzell spinner assembly A2298-2 Governor: Woodward H210681 McCauley C290D3(X)/T29 or DC290D1(X)/T12 Sensenich fixed pitch 76EM8S5-0-56 or 76EM8S8-0-56 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. For O-360-C1F (modified) avoid continuous operation between 2150 rpm and 2350 rpm. Spinner: Sensenich spinner assembly S76EM
Airspeed limits (IAS)	<u>Landplane:</u> (See NOTE 11)

C.G. range	<u>Landplane:</u>	(+15.6) to (+19.0) at 2300 lbs. (+11.0) to (+19.0) at 1500 lbs. or less Straight line variation between points given.	
Empty weight			
C.G. range	None		
Maximum weight	2300 lbs.		
Number of seats	2 at +20		
Maximum baggage	100 lbs. at (+20), 200 lbs. (+54)		
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 wing at +24) (See NOTE 1 for data on fuel system.)		
Oil capacity	8 qt. (-36.5), 2 qt. minimum (See NOTE 1 for data on oil system.)		
Control surface movements	Wing flaps	Handle full down	-7° ±1°
		First Notch	0° ±1°
		Second Notch	20° ±3°
		Third Notch	35° ±3°
	Aileron	Up 20° ±1°	Down 20° ±1°
	Elevator	Up 25° ±2°	Down 21° ±1°
	Elevator tab	Up 11° ±3°	Down 25° ±1°
	Rudder	Right 21° ±1°	Left 21° ±1°
	Rudder tab	Right 48° ±4°	Left 48° ±4°
Serial numbers eligible	Model M-4-180V, s/n 47001C and up		
Production basis	Production Certificate No. 11S0		

XXVIII. Model M-9-235, 4/5 PCLM (Normal Category) Approved April 9, 2012, Final application date August 8, 2011

(Same as M-7-235C except for structural reinforcements and minor changes to the fuselage, wings and main landing gear.)

Engine	Lycoming	IO-540-W1A5	
Fuel	100/100LL minimum grade aviation gasoline		
Engine limits	235 hp at 2400 rpm, all operations		
Propeller and propeller limits	McCauley constant speed 3-blade model B3D32C414-[]-[]-82NDA-2 Diameter: -2: not over 80 in.; not under 76 in. Pitch settings at 30 in. sta.: low 11.3° ± 0.2° high 30.0° ± 0.5° Spinner: McCauley spinner assembly D-6240 Governor: McCauley DC290D1(X)/T14		
Airspeed limits (CAS)	<u>Landplane:</u>	Never exceed	180 mph (156 knots)
		Max. structural cruising	145 mph (126 knots)
		Maneuvering	125 mph (109 knots)
		Flaps extended	94 mph (82 knots)
C.G. range	<u>Landplane:</u>	(+16.2) to (+20.5) at 2800 lbs. (+12.5) to (+20.5) at 1700 lbs. or less Straight line variation between points given.	
Empty weight			
C.G. range	None		
Maximum weight	Landplane:	2800 lbs.	
Number of seats	5(2 at +20, 2 at +53, 1 at +83)		

	Optional: 4 (2 at +20, 2 at +53)
Maximum baggage	100 lbs. (+20), 200 lbs. (+42), 125 lbs. (+72)
Fuel capacity	47.6 gal. (43 gal. usable; two 23.8 gal. tanks in wings at +24) Wing auxiliary tanks 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 M-9-235, s/n 36001C and up
Production basis	Production Certificate No. 11S0

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 14 CFR Part 36 amended thru 36-4* and part 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, M-7-235B, M-7-235C, MX-7-180C, M-7-260, MT-7-260, M-7-260C, MX-7-160C, MX-7-180AC, M-4-180V and M-9-235.

* Part 36 amendment shown is for the model M-5-235C which was approved in 1976. For models approved between 1976 and 2002, per §36.2 (prior to Amendment 36-24) the Part 36 amendment in effect on the approval date of each model was used. After 2002, per §36.2 the Part 36 amendment in effect on the date of application was used. The applicable dates are located in the first line in each model's section above. Note: Some of these derivative models were able to show no acoustical change from a previously approved model.

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

Part	Amendment
21.101(b)	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:

14 CFR part 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, M-7-420AC, M-7-420A and MT-7-420:

Part 3, Civil Air Regulations, effective May 15, 1956, as amended through 3-7; and 14 CFR Part 36 as amended through 36-14, SFAR 27 as amended through 27-2, and the following Part 23 requirements for turbine engine installations:

23.45 (-21)	23.939 (-18)	23.1143 (-17)
23.49 (-21)	23.943 (-18)	23.1145 (-18)
23.65 (-21)	23.951 (-15)	23.1155 (-7)

23.75 (-21)	23.955 (-7)	23.1165 (-17)
23.77 (-21)	23.977 (-17)	23.1183
23.173 (-14)	23.991 (-26)	23.1303 (-17)
23.175 (-17)	23.997 (-15)	23.1305 (-26)
23.251 (-0)	23.1013 (-15)	23.1323 (-20)
23.253 (-7)	23.1015 (-15)	23.1337 (-18)
23.335 (-16)	23.1019 (-15)	23.1353 (-20)
23.361 (-26)	23.1027 (-14)	23.1505 (-7) & 3.187 or 23.333
23.371 (-7)	23.1041 (-7)	23.1521 (-21)
23.629 (-31)	23.1043 (-21)	23.1527 (-7)
(to include whirl mode)	23.1045 (-7)	23.1529 (-26)
23.863 (-23)	23.1091 (-7)	23.1545 (-23)
23.901 (-18)	23.1093 (-18)	23.1549 (-12)
23.903 (-26)	23.1103 (-7)	23.1557 (-23)
23.905 (-26)	23.1105 (0)	23.1583 (-23)
23.929 (-14)	23.1111 (-17)	23.1587 (-23)
23.933 (-17)	23.1121 (-18)	
23.937 (-7)	23.1141 (-18)	

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 (Original AFM issued when model was first approved or any later FAA approved revision is acceptable):
 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/C, (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-4-180C, 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. C dated 3/3/95 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. E dated 10/26/98
19. Model MXT-7-180, AFM dated 11/9/90, rev. D dated 3/7/02
20. Model MT-7-235, AFM dated 3/20/92, rev. D dated 3/7/02
21. Model M-8-235, AFM dated 8/10/92, rev. F dated 10/20/08
22. Model MX-7-160, AFM dated 11/13/92, rev. G dated 5/24/02
23. Model MXT-7-160, AFM dated 11/13/92, rev. C dated 3/7/02
24. Model MX-7-180A, AFM dated 6/3/93, rev. E dated 1/26/07
25. Model MXT-7-180A, AFM dated 6/3/93, rev. E dated 3/7/02
26. Model MX-7-180B, AFM dated 7/12/93, rev. D dated 3/7/02
27. Model MXT-7-420 removed from TC January 7, 2003
28. Model M-7-235B, AFM dated 10/14/93, rev. E dated 5/24/02
29. Model M-7-235A, AFM dated 3/10/94, rev. C dated 3/7/02
30. Model M-7-235C, AFM dated 10/10/95, rev C dated 5/20/02
31. Model MX-7-180C, AFM dated 8/26/96, rev. D dated 5/24/02
32. Model M-7-260, AFM dated 4/17/98, rev. F dated 5/24/02
33. Model MT-7-260, AFM dated 4/17/98, rev. E dated 3/7/02
34. Model M-7-260C, AFM dated 10/15/98, rev. E dated 5/24/02
35. Model M-7-420AC, AFM dated 12/17/98, rev. D dated 10/24/06

36. Model MX-7-160C, AFM dated 3/12/99, rev. E dated 3/7/02
37. Model MX-7-180AC, AFM dated 5/4/2000, rev. A dated 3/7/02
38. Model M-7-420A, AFM dated 11/20/2000, rev. C dated 3/7/02
39. Model MT-7-420, AFM dated 1/7/2003, rev.A dated 3/5/04
40. Model M-4-180V, AFM dated 9/6/2005, rev.A dated 7/18/06
41. Model M-9-235, AFM dated 4/9/2012

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 18 lbs. (+24) (20 gal. main)	M-4 series (except M-4-180V), 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-6-235, 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, M-7-235C, MX-7-180C
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Fuel 27.6 lbs. (+24) (21.5 gal. main)	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, M-7-235C, MX-7-180C, M-7-260, MT-7-260, M-7-260C, MX-7-160C, M-6-235, MX-7-180AC, M-5-210C*, M-5-220C*, M-5-235C*, M-5-180C*, M-5-210TC*, M-5-200*, M-4-180V, M-9-235 *with Modification Kit No. 15 installed.
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Fuel 16.2 lbs. (+24) (40.6 gal. main)*	MX-7-420 (tank configuration A)
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Fuel 31 lbs. (+24) (43 gal. main)*	MX-7-420 (tank configuration C), M-7-420AC, M-7-420A, MT-7-420
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* Two main tanks considered one tank

Oil 8 lbs. (-37)	M-4 series
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Oil 6 lbs. (-37)	M-4-220 series, M-4-180 series, M-4-210 series, M-5-220C, M-5-210C
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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, MX-7-180C, MX-7-160C, MX-7-180AC, M-4-180V
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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, M-7-235C, M-7-260, MT-7-260, M-7-260C, M-9-235
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Oil 20 lbs. (-22.5)	MX-7-420, M-7-420AC, M-7-420A, MT-7-420
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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 (except M-4-180V):
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-4-180V and M-5 and subsequent models:

For M-4-180V:
 With Hartzell HC-C2YR-1BF/F7666A:
 AVOID CONTINUOUS OPERATION 2000-2250 RPM

With Sensenich fixed pitch propeller and O-360-C1F (modified):
 AVOID CONTINUOUS OPERATION 2150-2350 RPM

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

For M-4-180V:
 DEMONSTRATED CROSSWIND 12K (14 MPH)
 and
 TAKEOFF WITH 20° FLAPS

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 SELECTOR TO POSITION DESIRED THEN OPERATE PUMP UNTIL MAXIMUM PRESSURE IS DEVELOPED.

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

12. 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:

At the top of the instrument panel, to the right of the radio group: 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	PUSH FOR
AUX. QUANT.	AUX. QUANT.
LEFT	RIGHT

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

* 20 gal. except M-7/MX-7/MXT-7/MT-7/M-8 series may have either 20 gal. or 21.5 gal.;
 M-4-180V and M-9-235 have 21.5 gal.

** For M-4 (except M-4-180V) and 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, M-4-180V: 15.0 gal.
 For M-7/MXT-7/MT-7/M-8 series
 and MX-7 series except those listed below: 15.0 or 21.0 gal.
 For MX-7-420/MX-7-180/MX-7-235: 15.0 gal.
 For M-9-235 21.0 gal.

(B) Located on the flap handle:

1. For M-4 series (all except M-4-180V) 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/ 15° TAKEOFF/ 35° 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/ 20° TAKEOFF/ 40° LANDING

2. For M-6-180/-235, M-7-235/-235A/-235B*/-235C/-260/-260C, MX-7-180/-180A*/-180B*/-180C/-180AC/-235/-160*/-160C, M-8-235*, M-9-235:
FLAPS/PULL ON/ 2ND NOTCH/ TAKEOFF/ 4TH NOTCH/ LANDING
* 4TH NOTCH" is replaced by "3RD NOTCH" for M-7-235B S/N's 23001C thru 23003C, 23005C thru 23010C, and 23012C, MX-7-180A S/N's 20001C thru 20026C, 20028C, 20029C, and 20031C thru 20035C, MX-7-180B S/N's 22003C, 22006C, and 22007C, MX-7-160 S/N's 19001C thru 19034C and 19041C M-8-235 S/N's 15001C thru 15005C unless Mod Kit #11 is complied with.
3. For MX-7-420, MXT-7-180/-180A/-160/-420, MT-7-235/-260/-420, M-8-235, M-7-420AC, M-7-420A, M-4-180V:
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:

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

2. 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

3. For M-4-220C, (s/n 2125C, 2127C, 2128C, 2137C, 2138C, 2140C and up), M-5-220C, M-5-200, M-5-210TC, M-5-235C/-180C, M-6-235/-180, 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 later M-6-235, MX-7-160/-180/-180A/B/C/-235, M-4-180V, M-7-235/A/B/C, MXT-7-160/-180/A, MT-7-235, M-8-235.

For MX-7-160C/-180AC, M-7-260/C, MT-7-260, M-9-235:

FUEL SELECTOR VALVE
LEFT: 21.5 GAL.
OFF BOTH
RIGHT: 21.5 GAL.

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

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

LEFT LEFT
20 GAL. 20 GAL.
RIGHT or BOTH (Use with 10049E-7 Valve)
20 GAL. RIGHT

(Use with SP-2263-B3 or 10049E-6 Valve) 20 GAL.

5. For -420 series:
FUEL SELECTOR VALVE
BOTH ON
OFF

(D) In rear cabin area:

1. For M-4 (except M-4-180V) and M-5 series:
BAGGAGE 125 LBS. MAXIMUM.
FOR LOADING INSTRUCTIONS SEE
WEIGHT AND BALANCE INFORMATION.
2. For M-5 and subsequent models (except M-4-180V):
CARGO OR BAGGAGE LIMITATIONS
MAX. LOAD AREA "A" 100 LBS.
MAX. LOAD AREA "B" 175 LBS.*
MAX. LOAD AREA "C" 125 LBS.
* MAX. LOAD AREA "B" 200 LBS. for M-9-235 or aircraft with Cargo Straps installed per 1244F.
3. For models with optional 5th seat installed and M-7/MT-7/M-9 series with 5th seat:
CHECK WEIGHT AND BALANCE CAREFULLY WHEN
USING 5TH SEAT OR LOADING
REAR/CARGO/BAGGAGE.

MAXIMUM REAR SEAT LOADING 170 LBS.
4. 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.
5. For M-4-180V:
CHECK WEIGHT AND BALANCE CAREFULLY
WHEN LOADING REAR/CARGO/BAGGAGE.

CARGO OR BAGGAGE LIMITATION
MAX. LOAD AREA "A" 100 LBS.
MAX. LOAD AREA "B" 200 LBS.
6. When Tow Release Assembly is installed (M-9-235):
GROSS WEIGHT LIMITED TO 2500 LBS. WHEN TOWING

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, unless optional Modification Kit No. 36 is installed.

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

<u>Models</u>	<u>Serial numbers</u>
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:

<u>Models</u>	<u>Serial numbers</u>
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	(Spare parts)
M-7-235	(Spare parts) (with STC SA2661SO known as M-7-420) (Spare parts)
M-6-180	(Spare parts)
MX-7-235	(Spare parts)
MX-7-180	(Spare parts)
MX-7-420	(Spare parts)
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
M-7-260	26001C and up
MT-7-260	27001C and up
M-7-260C	30001C and up
M-7-420AC	29001C and up
MX-7-160C	34001C and up
MX-7-180AC	33001C and up
M-7-420A	35001C and up
MT-7-420	51001C and up
M-4-180V	47001T and up
M-9-235	36001C 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 -

(A) For models M-4/C/S/T, M-4-180C/-180S/-180T, M-4-210/-210C/-210S/-210T, M-4-220/-220C/-220S/-220T:

<u>Landplane:</u>	Never exceed	180 mph (156 knots)
	Max. structural cruising	145 mph (126 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	90 mph (78 knots)

(B) For models M-5-180C/-210C/-220C/-235C/-210TC/-200, M-6-235/-180, M-7-235/A, M-8-235, MX-7-235:

<u>Landplane:</u>	Never exceed	180 mph (156 knots)
	Max. structural cruising	145 mph (126 knots)

Maneuvering	125 mph (109 knots)
Flaps extended	94 mph (82 knots)

(C) For models MX-7-160/-160C, MXT-7-160:

<u>Landplane:</u>	Never exceed	180 mph (156 knots)
	Max. structural cruising	147 mph (128 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	95 mph (82 knots)

(D) For models M-7-235B/-235C, M-7-260/-260C, MXT-7-180, MT-7-235/-260, and M-4-180V:

<u>Landplane:</u>	Never exceed	182 mph (158 knots)
	Max. structural cruising	147 mph (128 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	95 mph (83 knots)

(E) For models MX-7-180A/-180B/-180C/-180AC and MXT-7-180A:

<u>Landplane:</u>	Never exceed	185 mph (161 knots)
	Max. structural cruising	149 mph (129 knots)
	Maneuvering	125 mph (109 knots)
	Flaps extended	98 mph (85 knots)

(F) For models MX-7-180:

<u>Landplane:</u>	Never exceed	185 mph (161 knots)
	Max. structural cruising	149 mph (129 knots)
	Maneuvering	129 mph (112 knots)
	Flaps extended	98 mph (85 knots)

(G) For all -420 models:

<u>Landplane,</u>	Never exceed	151 mph (131 knots)
<u>Floatplane,</u>	Max. structural cruising	151 mph (131 knots)
<u>and</u>	Maneuvering	121 mph (105 knots)
<u>Skiplane:</u>	Flaps extended	94 mph (82 knots)

(H) All reciprocating engine models (except M-4-210/-210C with Federal A2000A Skis never exceed speed is unchanged from Landplane):

<u>Skiplane:</u>	Never exceed	160 mph (139 knots)
<u>Floatplane:</u>	Never exceed	164 mph (142 knots)

Airplane Flight Manual Supplements required for Floatplanes and Skiplanes.

Airspeed limits for Models M-4 series, M-5 series, M-6 series, M-7-235/-235A, M-8-235, MX-7-235 and MX-7-420 are Calibrated Airspeeds (CAS). All other models are Indicated Airspeeds (IAS).

Note 12 Control surface movements for M-6 and subsequent models (except M-4-180V):

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 14° ±2°	Down	28° ±2°
Elevator tab w/piano hinge	Up 12° ±2°	Down	38° ±2°
Rudder	Right 21° ±1°	Left	21° ±1°
Rudder tab	Right 48° ±4°	Left	48° ±4°

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

*Fourth Notch applicable to those models listed in Note 2 (B) 2.

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/-235C/-260/-260C, MX-7-235/-180A/-180B/-180C, and MT-7-235/-260 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.

Note 14 Propeller and propeller limits - For models M-5-235C, M-6-235, M-7-235, MX-7-235, M-8-235, M-7-235A, M-7-235B, and M-7-235C:

Hartzell constant speed model HC-C2YR-1BF/F8468A-6R or -3R

(-3R use with 7:00 tires or larger/26 psi minimum air pressure.)

Hartzell constant speed 2 blade model HC-C2YR-1BF/F8477D-6

(Use with O-540-J3A5 or O-540-B4B5 engine only)

Hartzell constant speed 3 blade model HC-C3YR-1RF/F7693(F)-()

(Use with O-540-J3A5, O-540-B4B5, IO-540-W1A5D or IO-540-W1A5 engines only)

Diameter: -3R: Not over 81 in.; not under 77 in.

-6R: Not over 78 in.; not under 77 in.

F8477D-6 or F7693(F)-(): Not over 78 in.; not under 76 in.

Pitch settings at 30" sta.:

-3R: low $16^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ (O-540-J1A5D, O-540-J3A5, IO-540-W1A5D or IO-540-W1A5 engines)

low $13.8^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ (O-540-B4B5 engine)

-6R: low $16.7^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ (O-540-J1A5D, O-540-J3A5, IO-540-W1A5D or IO-540-W1A5 engines)

F8477D-6: low $14.3^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ (O-540-B4B5 engine)

low $16.7^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ (O-540-J3A5 engine)

F7693(F)-(): low $14.3^{\circ} \pm 1^{\circ}$ high $30^{\circ} \pm 1^{\circ}$ (O-540-B4B5 engine)

low $14.2^{\circ} \pm 1^{\circ}$ high $31^{\circ} \pm 1^{\circ}$ (O-540-J3A5, IO-540-W1A5 or IO-540-W1A5D engines)

low $12.5^{\circ} \pm 1^{\circ}$ high $31^{\circ} \pm 1^{\circ}$ (O-540-B4B5 engine)

-6R: Do not exceed 23 in. M.P. below 2050 rpm.

McCaughey constant speed 3-blade model B3D32C414-C/G-82NDA-2 or -4

(-2 use with 7:00 tires or larger)

McCaughey constant speed 2-blade model B2D37C224-B/G-90RA-9*

(-9 use with 7:00 tires or larger/26 psi minimum air pressure.)

Diameter: -2: not over 80 in.; not under 76 in.

-4: not over 78 in.; not under 76 in.

-9: not over 81 in.; not under 78 in.

Pitch settings at 30" sta.:

-2 (80"): low $15.0^{\circ} \pm 0.2^{\circ}$ high $30.0^{\circ} \pm 0.5^{\circ}$ (O-540-J1A5D, O-540-J3A5, IO-540-W1A5D or IO-540-W1A5 engines)

low $13.3^{\circ} \pm 0.2^{\circ}$ high $30.0^{\circ} \pm 0.5^{\circ}$ (O-540-B4B5 engine)

-4 (78"): low $15.7^{\circ} \pm 0.2^{\circ}$ high $30.0^{\circ} \pm 0.5^{\circ}$ (O-540-J1A5D, O-540-J3A5, IO-540-W1A5D or IO-540-W1A5 engines)

low $14.0^{\circ} \pm 0.2^{\circ}$ high $30.0^{\circ} \pm 0.5^{\circ}$ (O-540-B4B5 engine)

-9 (81"): low $14.7^{\circ} \pm 0.2^{\circ}$ high $24.6^{\circ} \pm 0.5^{\circ}$ (O-540-J1A5D, O-540-J3A5, IO-540-W1A5D or IO-540-W1A5 engines)

low $13.3^{\circ} \pm 0.2^{\circ}$ high $24.6^{\circ} \pm 0.5^{\circ}$ (O-540-B4B5 engine)

Spinner: Hartzell spinner assembly A2298-2 (use with Hartzell propeller only)

Hartzell spinner assembly C-3535-1P (use with Hartzell 3-blade prop only)

McCaughey spinner assembly D-6240 (use with McCaughey 3-blade propeller only)

McCaughey spinner assembly D-6195 (use with McCaughey 2-blade propeller only)

Governor: Woodward F210681** or B210761 (O-540-J1A5D, O-540-J3A5, IO-540-W1A5D or IO-540-W1A5 only); E210761 (O-540-B4B5 only)

McCaughey C290D3(X)/T30 or DC290D1(X)/T14 (O-540-J1A5D, O-540-J3A5, IO-540-W1A5D or IO-540-W1A5 only);

C290D3(X)/T31 or DC290D1(X)/T15 (O-540-B4B5 only)

* McCaughey B2D37C224-B/G-90RA-9 not approved for installation on M-6-235, M-7-235, MX-7-235 with O-540-B4B5 engines.

** For Woodward Governor F210681 on M-5-235C refer to AD#81-25-01 for eligible serial numbers.

Note 15 Propeller and propeller limits - For models M-7-260, M-7-260C and MT-7-260:

MT-Propeller 4 Blade Model MTV-14-B/190-17

Diameter: not over 75in.; not under 69 in.

Pitch settings at 26.18 in. sta.: low $12.0^\circ \pm 0.2^\circ$; high $32.0^\circ \pm 1^\circ$

Hartzell - constant speed 2-blade model HC-C2YR-1BF/F8477D-6

Hartzell - constant speed 3-blade model HC-C3YR-1RF/F7693(F) and (F)-2

Diameter: not over 78 in.; not under 76 in.

Pitch settings at 30 in. sta.:

F8477D-6: low $13.5^\circ \pm 0.1^\circ$ high $30^\circ \pm 1^\circ$

F7693: low $12.0^\circ \pm 0.2^\circ$ high $31^\circ \pm 1^\circ$

McCauley - constant speed 2-blade model B2D37C224/90RA-12 and -10.5

McCauley - constant speed 3-blade model B3D32C414/82NDA-2 and -4

Diameter: -12: not over 78 in.; not under 77 in.

-10.5: not over 79.5 in.; not under 78 in.

-2: not over 80 in.; not under 76 in.

-4: not over 78 in.; not under 76 in.

Pitch settings at 30 in. sta.:

-12: low $13.4^\circ \pm 0.2^\circ$ high $29.5^\circ \pm 0.5^\circ$

-10.5: low $13.1^\circ \pm 0.2^\circ$ high $29.5^\circ \pm 0.5^\circ$

-4: low $12.0^\circ \pm 0.2^\circ$ high $30.0^\circ \pm 0.5^\circ$

-2: low $11.3^\circ \pm 0.2^\circ$ high $30.0^\circ \pm 0.5^\circ$

Spinner: MT-Propeller spinner assembly P-238-A-1 (use with MT-Propeller only)

Hartzell spinner assembly A2298-2 (use with Hartzell 2-blade prop only)

Hartzell spinner assembly C-3535-1P (use with Hartzell 3-blade prop only)

McCauley spinner assembly D-6195 (use with McCauley 2-blade prop only)

McCauley spinner assembly D-6240 (use with McCauley 3-blade prop only)

Governor: McCauley DC290D1(X)/T33

Note 16 For M-5 series models with optional wing assemblies 2110X-30 installed per Modification Kit No. 15:

Fuel Capacity 47.6 gal (43 gal. usable; two 23.8 gal. tanks in wings at +24.0)

Note 17 For notification from Maule Aerospace of revisions to Maule airplane manuals or new/revised Service Letters or Bulletins, send your email address to OwnerAlert@mauleairinc.com. Include Airplane Model No. and Serial No. Owners will be emailed alerts when new documents are available for download on www.mauleairinc.com.

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