

Maule M7-235B N611BY

ENGINE PRE-START

Doors	Closed and Latched
Seat belts and shoulder harnesses	Fastened
Flaps	Retracted
Circuit breakers	Check all ON

ENGINE START

Toe brakes	ON
Fuel selector valve	On fuller tank
Throttle	Open ¼ inch
Propeller control	Full increase RPM
Mixture control	Rich <u>Hot Start:</u> do NOT Prime. Hot engine may flood on start attempt. <u>Clear Flooded Engine:</u> Mixture Full Lean, open throttle, engage starter. At engine start, pull throttle to idle and ease mixture to full rich.
Anti-collision Light	ON
Battery and Alternator switches	ON
Primer	as required
Starter switch	twist full right to engage
Throttle	set 1000 RPM
Oil Pressure	> 25 PSI within 30 sec. If not, <u>shut down engine.</u>
Alternator	Check charging
Radios and other electrical switches	As required

ENGINE RUN-UP CHECK

Toe brakes	ON
Flight Controls	check for freedom and proper travel
Engine instruments	Verify in Green Arcs
Throttle	Increase to 2000 RPM
Magnetos	Switch to Right, Both, Left, Both. Check RPM drop ≤ 175 RPM. Difference between Left and Right of more than 50 RPM is unacceptable.
Propeller control	Set full increase RPM. Retard slowly until maximum 500 RPM drop is noted. Repeat once. Return to full increase RPM.
Carburetor air control (o-540)	Pull Hot. Normal drop with carburetor air Hot is 150 +/- 50 rpm
Carburetor air control (o-540)	Push cold
Vacuum gauge	Check in green
Fuel Boost Pump	ON, note increase in fuel pressure
Fuel Boost Pump	OFF, note drop in fuel pressure
Alternator	Charging: light out above 900 RPM
Throttle	Retard to Idle, 1000 RPM

BEFORE TAKE-OFF

Fuel selector	On fuller tank. Check proper detent location.
Primer	IN, Locked
Flaps	as desired for T.O. (Max 24°, 2nd Notch)
Elevator Trim	set for takeoff
Mixture	full Rich
Propeller control	Set full increase RPM.
Carburetor Air Control (o-540)	push cold
Fuel Boost Pump	ON (until climb-out complete)
Engine Instruments	recheck in normal range
radios	As desired
altimeter	set
attitude indicator	Check erect
directional indicator	set
seatbelts and shoulder harness	recheck fastened
doors	closed and latched
passengers	belts and harness secured; briefed on opening doors
parking brake	off

CRUISE

Fuel Boost Pump	OFF
Fuel selector	On fuller tank. Check proper detent location.
Mixture, Propeller control	Lean as needed.

BEFORE LANDING

Seat belts and shoulder harnesses	Fastened
Fuel selector	On fuller tank. Check proper detent location.
Primer	IN, Locked
Mixture	full Rich
Propeller control	Set full increase RPM.
Flaps	as required
Elevator Trim	set for takeoff
Carburetor Air Control (o-540)	pull Hot as needed
Fuel Boost Pump	ON

Normal flight operations

Note: The airplane meets CAR 3 take off climb requirements at 78 KTS (90 MPH) IAS with the flaps selected in any of the following three positions: (a) fully retracted, Handle full down (-7°), (b) first notch (0°), and (c) second notch (24°).

Normal takeoff - second notch (24°)

Normal climb - first notch (0°)

Best angle of climb - second notch (24°)

Cruise - fully retracted (-7°/no notches or 0°/1st notch)

Landing - normally fourth notch (48°/full flaps) - other positions optional

Caution: Or takeoff or Landing under Gusty cross wind conditions, flap setting of 0° (one notch) is recommended. -7° optional

1. Climbing

Caution: Use climb AirSpeed below 78 KTS (90 MPH) only as necessary and check cylinder head temperature frequently when doing so

<i>Best rate of climb</i>	<i>78 kts (90 MPH) IAS, flaps first notch (0°)</i>
<i>Best angle of climb</i>	<i>65 kts (75 MPH) IAS, flaps second notch (24°)</i>

2. Rudder trim

Note: To assure full effectiveness of right Rudder trim:

Unlock T handle (½ turn left), depress right Rudder as you pull T handle 4 out.

Lock T handle 1/2 turn right before releasing right Rudder pressure.

If too much trim, move handle in until trim is correct and then lock.

3. Stalls:

Stalls are preceded by mild buffet that can be felt through the rudder pedals. The red stall warning light on the instrument panel will illuminate at 4 to 9K (5 to 10 MPH) above the stall speed. Loss of altitude prior to recovery from stall may be as much as 300 feet

Caution: the stall warning light is inoperative when the battery switch is off.

4. Crosswind takeoff and landings:

Maximum demonstrated crosswind component is 12K (14MPH) and flap extension should be limited to 0° (one notch) with such crosswind or higher. 12K (14MPH) is the maximum demonstrated for certification of the airplane and is not considered limiting with flaps at 0°

5. Fuel system management:

fuel is fed to the engine from the main (in board) tanks and is controlled by the selector valve on the left kick panel. Auxiliary (outboard) tanks feed their respective main tanks via transfer pumps that are controlled by switches on the instrument panel. These transfer pumps transfer fuel at a rate of 0.4 gallons per minute or approximately 45 minutes for a full auxiliary tank. Since over filling a main tank from an auxiliary tank with 4 successful overboard it is recommended that the transfer pumps not be activated until their respective main tanks are slightly more than one-quarter full. if the tank being transferred to is feeding the engine, however, transfer can be initiated when the main tank is down to approximately one-half. Confirm fuel transfer by illumination of the transfer pump switch, and increase in their respective main tank fuel gauge indicator, and a decrease in the respective auxiliary tank indicator.