

Mooney M20L PFM Model Guide

The Mooney M20L PFM is a four-seat, single-engine piston airplane built 1988-1989. It has a 217 hp Porsche PFM 3200 engine. AOPA Pilot's 1989 flight report says it is valued for easy power management, low noise and efficiency rather than speed. It cruised at about 155 KTAS. Payload with full fuel is limited.

KEY TAKEAWAYS

- Single power control replaces throttle, prop and mixture levers; no manual leaning is needed.
- Tested cruise was about 155 KTAS at 2,300 prop rpm, burning 9.5 to 10.5 gph.
- Useful load is 948 lb (759 lb as tested); four adults plus bags leaves very little fuel.
- Base price was \$149,900 and 41 were built by 1989, so parts and engine support need checking.

ENGINE AND SYSTEMS

The Porsche PFM 3200 makes 217 hp at 2,343 prop rpm through a reduction gearbox. It has microprocessor-controlled ignition, Bosch fuel injection that sets the mixture automatically, and fan cooling. Recommended TBO is 2,000 hr. There are two 24-volt batteries, two 70-amp alternators and two electrical buses.

PERFORMANCE AND LOADING

Manufacturer figures: takeoff ground roll 1,250 ft, rate of climb 1,050 fpm, max level speed 168 kt, max operating altitude 19,300 ft. Max takeoff weight is 2,900 lb. Fuel is 66.5 gal (60.5 usable) and baggage is 120 lb. The cabin is about 10.5 ft long and 3.6 ft wide.

WHAT TO CHECK WHEN BUYING

Check the electrical system and the crossover breaker procedure, which the reviewer called the greatest challenge. Check engine support: Porsche changed its US aviation arrangements and its future production was uncertain. Porsche's cost-assurance program required 100-hour engine inspections. Confirm the useful load of the individual airplane.

SPECIFICATIONS

Engine Power Hp	217
Propeller Diameter In	74
Length Ft	26.92
Height Ft	8.33
Wingspan Ft	36.08
Cabin Length Ft	10.5
Fuel Capacity Gal	66.5
Usable Fuel Gal	60.5

PERFORMANCE

Cruise Speed Kt	160
Max Level Speed Kt	168
Rate Of Climb Fpm	1050
Max Operating Altitude Ft	19300
Takeoff Ground Roll Ft	1250
Takeoff Over 50ft Ft	2510
Landing Over 50ft Ft	1900
Landing Ground Roll Ft	900

V-SPEEDS

Vx Kias	75
Vy Kias	96
Va Kias	117
Vfe Kias	110
Vle Kias	129
Vno Kias	174
Vne Kias	195
Vso Kias	57

WEIGHT & BALANCE

Max Takeoff Weight Lbs	2900
Max Landing Weight Lbs	2900
Empty Weight Lbs	1952
Useful Load Lbs	948
Payload Full Fuel Lbs	585
Baggage Capacity Lbs	120

SAFETY NOTES

- The electrical system is complex. After a bus failure, redundancy is lost and only battery power remains for the electronic ignition and electric fuel pumps.
- Full fuel limits payload; the review says four adults plus 50 lb of bags leaves fuel only for taxi and an ignition check. Do the weight and balance calculation every flight.
- Shutting off the two fuel pumps stops the engine and propeller almost instantly. Know the shutdown and emergency procedures.