

Mooney M20E Chaparral Model Guide

The Mooney M20E Chaparral is a four-seat, single-engine retractable-gear aircraft built 1964-1975. It has a 200 hp fuel-injected Lycoming IO-360-A1A. It is the former Super 21, renamed Chaparral in 1969, and it has the smaller of Mooney's two cabins. Max gross weight is 2,575 lbs, with 52 gallons of fuel.

KEY TAKEAWAYS

- Four seats, 200 hp IO-360-A1A. The 1969 AOPA Pilot data lists 2,575 lb gross, 1,600 lb empty and 975 lb useful load.
- In the AOPA Pilot test: about 175 mph true at 65% power, about 9.5 gph, and about 5.5 hours endurance on 52 gallons.
- The cabin is smaller than the Executive 21's. The reviewer would fly it alone, but would choose the larger cabin for rear-seat passengers.
- The 1969 base price was \$20,755. The reviewer found it gentle and forgiving, and expected above-average reliability and economy.

LOADING

Max certificated gross weight is 2,575 lbs. Baggage is limited to 120 lbs, the hat rack to 10 lbs, and fuel to 52 gallons (312 lbs). The sample load of pilot plus three 170-lb passengers, 220 lbs of fuel and 60 lbs of baggage reaches 2,575 lbs. A full-fuel, four-adult load therefore needs trimming. Use the weight and balance record and the moment envelope.

ENGINE AND SYSTEMS

The IO-360-A1A is fuel injected and runs 100/130 octane, with a 74-inch constant-speed propeller and an eight-quart oil sump. Fuel is carried in two 26-gallon wing-root tanks with a selector valve and sump drains. The Power Boost control bypasses the air filter. Use it only in clean air, and keep it off for takeoff and landing. Gear and flaps are electric, and the Brittain Positive Control (PC) autopilot is fitted. The article says a heated pitot is standard.

WHAT TO CHECK

PC stays on until the wheel cutout button is held down, so test it. The AOPA test airplane had vibrating primary instruments and an EGT system that read backwards, so verify the instruments and EGT. Check Power Boost and alternate air operation, the gear warning light and the emergency gear extension. The 1966-67 manual lists a 50-amp generator and the revised weight and balance record lists a 60 amp alternator. Confirm the charging system for the specific airplane.

SPECIFICATIONS

Engine Power Hp	200
Max Takeoff Weight Lbs	2575
Empty Weight Lbs	1600
Useful Load Lbs	975
Fuel Capacity Gal	52
Wing Span Ft	35
Propeller Diameter Inches	74

PERFORMANCE

Service Ceiling Ft	18800
Cruise Fuel Burn 65 Percent Gph	9.5

WEIGHT & BALANCE

Max Gross Weight Lbs	2575
Max Baggage Lbs	120
Max Hat Rack Lbs	10
Max Fuel Weight Lbs	312
Fuel Arm Inches	48.43
Baggage Arm Inches	93
Hat Rack Arm Inches	114

SAFETY NOTES

- Do not fly in icing conditions. Turn Power Boost off if icing is inadvertently encountered, because snow or ice in the injector can cause power loss.
- Power Boost must be off for takeoff and landing. The boost pump is on for takeoff and landing. Cowl flaps stay open on the ground.
- Gear speed is 120 mph and flap speed is 125 mph. Flaps tolerate more speed than the gear, so watch airspeed when lowering the gear.