

Piper PA-28 Cherokee 235 Model Guide

The Piper PA-28 Cherokee 235 is a four-seat, low-wing, all-metal single built from 1964 to 1973. It has a 235 hp Lycoming O-540-B4B5 with a float carburetor. The 1973 Pathfinder manual lists 3,000 lbs gross weight, 84 gallons of fuel (82 usable) and a 200 lb baggage limit. Earlier handbook figures differ, so match the manual to the airplane.

KEY TAKEAWAYS

- Four seats and four fuel tanks: 84 gal total, 82 usable. The 1973 manual lists 1,435 lbs useful load; check the airplane's own weight and balance report.
- 1973 manual, gross weight, sea level: 850 ft takeoff ground run, 800 fpm climb, 13,550 ft service ceiling, 161 mph max speed with wheel fairings.
- Gross weight is 2,900 lbs in the earlier 'B' handbook and 3,000 lbs in the 1973 Pathfinder manual. Use figures that match the airplane's records.
- Serials 28-10001 to 28-11378 should have AFM Supplement No. 1 (expanded CG range, Report VB-274). Look for it and the logbook entry.

ENGINE, PROPELLER AND FUEL

The engine is rated 235 hp at 2575 rpm with 7.2:1 compression and needs 80/87 minimum octane fuel. The 1973 manual shows a Hartzell constant-speed propeller, 80 inches in diameter. The earlier 'B' handbook offers a fixed-pitch McCauley or the Hartzell. It lists 166 mph top speed (fixed pitch) and 164 mph (constant speed), with 14.0 gph at 75% power.

FUEL SYSTEM AND GROUND CHECKS

Fuel sits in two 25-gal main tanks and two 17-gal fiberglass tip tanks. Each tank has a quick drain, and the fuselage strainer should be drained regularly to clear water and sediment. The electric fuel pump should be ON for all takeoffs and landings. The preflight calls for a minimum of 8 quarts of oil, against a 12 quart capacity.

SERIAL-NUMBER DIFFERENCES

Airplanes with serials 28-10763 and up have an overvoltage relay that guards electrical equipment against surges and regulator failure. A mixture-control lock is fitted from serial 7510001 up. The main gear uses Cleveland 6.00 x 6 wheels. The nose gear steers through 30 degrees each side. Confirm which features your serial number should have.

SPECIFICATIONS

Engine Power Hp	235
Total Fuel Capacity Gal	84
Usable Fuel Gal	82
Max Baggage Lbs	200
Wing Span Ft	32

PERFORMANCE

Takeoff Ground Run Flaps Up Ft	850
Takeoff Distance Over Obstacle Flaps Up Ft	1410
Rate Of Climb Fpm	800
Service Ceiling Ft	13550
Absolute Ceiling Ft	15500
Landing Roll Ft	1040
Landing Distance Over Obstacle Ft	1740

WEIGHT & BALANCE

Max Gross Weight Lbs	3000
Standard Empty Weight Lbs	1565
Max Useful Load Lbs	1435
Max Baggage Lbs	200

SAFETY NOTES

- The rudder pedals hang from a torque tube across the fuselage. Learn the foot positioning so you do not interfere with it when using the rudder or toe brakes.
- Prolonged ground operation with carburetor heat ON should be avoided, especially on unimproved fields, because the air is not filtered.
- The Pilot's Operating Manual is incomplete without the FAA-approved Airplane Flight Manual and a current weight and balance report; the Flight Manual is the authority.