

Piper PA-28 Warrior Model Guide

The Piper PA-28 Warrior is a four-seat, single-engine, fixed-gear, all-metal low-wing piston airplane, listed as in production from 1974. The manuals supplied cover the PA-28-151 (Lycoming O-320-E3D, 150 hp). An accident report covers a PA-28-161. Piper describes it as suited to rental, training and cross-country use.

KEY TAKEAWAYS

- Gross weight is 2325 lbs and standard empty weight is 1331 lbs, leaving 994 lbs maximum useful load for people, fuel and baggage.
- The PA-28-151 manual lists a 1065 ft minimum takeoff ground run, 649 fpm rate of climb and a 12,700 ft service ceiling.
- The manual's planning example uses 107 kts true airspeed at 75% power, burning 8.4 gph at best economy mixture.
- Inspect the main gear torque link bolts closely: one failed during a landing roll on a PA-28-161.

PERFORMANCE (PA-28-151 MANUAL)

Takeoff ground run is 1065 ft minimum, and 1760 ft over a 50-ft obstacle with 25 degree flaps. Landing roll is 595 ft, or 1115 ft over a 50-ft barrier. Service ceiling is 12,700 ft and absolute ceiling is 14,960 ft. Stall speed is 58 mph flaps down and 64.5 mph flaps up. Best rate of climb speed is 87 mph.

LOADING AND AIRFRAME

The cabin seats four. The baggage compartment is 24 cubic ft, reached through a large baggage door. Wings are 35 ft span and the airplane is 23.8 ft long. Flaps have three extended positions: 10, 25 and 40 degrees. The right flap locks when retracted to serve as a cabin step. Always use the airplane's current weight and balance record, not the factory empty weight.

WHAT TO CHECK BEFORE BUYING

Look at the main landing gear torque links and bolts. The accident report found a corroded, worn and over-tightened lower bolt that failed from fatigue. The maintenance schedule calls for inspection every 100 flying hours and lubrication every 50 flying hours. Check the logbook for both. Wheel fairings make the bolts harder to inspect.

SPECIFICATIONS

Rated Horsepower Hp	150
Wing Span Ft	35
Length Ft	23.8
Height Ft	7.3

PERFORMANCE

Takeoff Ground Run Ft	1065
Takeoff Over 50ft Obstacle Ft	1760
Rate Of Climb Fpm	649
Service Ceiling Ft	12700
Absolute Ceiling Ft	14960
Landing Roll Ft	595
Landing Over 50ft Barrier Ft	1115
Planning Cruise Speed Kts	107

WEIGHT & BALANCE

Max Takeoff Weight Lbs	2325
Standard Empty Weight Lbs	1331
Max Useful Load Lbs	994

SAFETY NOTES

- A PA-28-161 right main gear leg broke away on landing roll after the lower torque link bolt failed from fatigue, with corrosion and signs of poor lubrication.
- Piper Service Letter 842 covers the centre torque link bolt. The UK mandate for it, AAD 016-02-80, has been cancelled, so confirm compliance in the logbooks.
- Published performance is unfactored and assumes a properly maintained airplane. Soft or grass runways and winds aloft must be allowed for by the pilot.