Piper PA-28 Archer II Model Guide

The Piper PA-28 Archer II (PA-28-181) is a four-seat, single-engine piston airplane, listed in the library from 1976. It has a 180 hp Lycoming O-360-A4M and a fixed-pitch two-blade Sensenich propeller. The handbooks give a 2550 lb gross weight, 48 gal usable fuel and a 1137 lb standard useful load.

KEY TAKEAWAYS

- Gross weight is 2550 lb with a 1137 lb standard useful load. The handbook says full seats, full fuel and full baggage cannot all be carried.
- Book figures, sea level and standard day: 870 ft takeoff ground run, 1625 ft over a 50-ft obstacle, 735 fpm climb.
- At 75% power, fuel burn is 10.5 gph best power or 8.8 gph best economy. Usable fuel is 48 gal.
- The listed recommended engine TBO is 2000 hrs. Check actual engine time and the current weight and balance record.

LOADING AND WEIGHT AND BALANCE

Normal category gross weight is 2550 lb, ramp weight is 2558 lb, and the utility category limit is 2130 lb. Standard empty weight is 1413 lb. Baggage capacity is 200 lb. Utility category operation allows no baggage or rear passengers. Any added equipment changes the basic empty weight, so ask for the current record.

PERFORMANCE ON PAPER

The specification sheet lists a 129 kt maximum speed, a 13650 ft service ceiling and 735 fpm climb at sea level. Takeoff is 870 ft ground run and 1625 ft over 50 ft. Landing is 925 ft ground roll and 1390 ft over 50 ft. Cruise range at 75% power and 8,000 ft is 520 nm at best power or 600 nm at best economy, with a 45-minute reserve.

WHAT TO CHECK ON INSPECTION

The club checklist gives: oil normally 5-6 qt (8 max); main gear strut extension 4.25-4.75 in; nose strut 3.0-3.5 in; main tires 24-27 psi; nose tire 18-20 psi. Also check fuel drains and samples, the alternator belt, and the magneto drop at run-up (max 175 rpm drop, 50 rpm difference).

SPECIFICATIONS

Engine Takeoff Power Hp	180
Engine Continuous Power Hp	178
Propeller Diameter In	76
Usable Fuel Gal	48
Unusable Fuel Gal	2
Recommended Engine Tbo Hours	2000

PERFORMANCE

Max Speed Kts	129
Service Ceiling Ft	13650
Rate Of Climb Fpm	735
Takeoff Ground Roll Ft	870
Takeoff Over 50ft Ft	1625
Landing Ground Roll Ft	925
Landing Over 50ft Ft	1390
Fuel Burn 75pct Best Power Gph	10.5

V-SPEEDS

Stall Flaps Down Kts	49
Stall Flaps Up Kts	55

WEIGHT & BALANCE

Max Ramp Weight Lbs	2558
Max Takeoff Weight Lbs	2550
Utility Category Weight Lbs	2130
Standard Empty Weight Lbs	1413
Standard Useful Load Lbs	1137
Baggage Capacity Lbs	200
Usable Fuel Gal	48

SAFETY NOTES

- The pneumatic warning in the handbook says IFR aircraft need a back-up pneumatic source or electric attitude gyro. Replace any inoperative air pump before the next flight.
- Check weight and C.G. before every takeoff. An aft C.G. makes the airplane pitch up in climb, and spin recovery gets harder.
- The checklist caps starter cranking at 30 seconds with a 2-minute rest between periods. Check oil pressure within 30 seconds of start.

AI-aggregated guide for the Piper PA-28 Archer II · sources: Specifications (#10385) · Performance Data for the Piper PA-28 Archer II (#10485) · Weight & Balance for the Piper PA-28 Archer II (#10478) · Pilot's Operating Handbook for Piper PA-28 Archer II (#10365) · Piper Archer II (PA-28-181) (#10472) · Piper Archer II Normal Checklist (Rev. 1.1 24AUG21) (#10469) · generated 2026-10-16 · Reference only, not for flight. Check the original documents before relying on this guide.