

Piper PA-28R Arrow Model Guide

The Piper PA-28R Arrow is a four-seat, single-engine piston airplane with retractable gear, listed here for 1967-1971 model years. The source documents cover PA-28R-180, -200 and -201 variants, so confirm which one you are buying. The PA-28R-201 guide describes a fuel-injected 200 BHP Lycoming IO-360 with a constant-speed McCauley propeller.

KEY TAKEAWAYS

- It has four seats, but you cannot fill them with four adults, full fuel tanks and maximum baggage. Do a weight and balance before each flight.
- Gear speeds (PA-28R-201): retract below 107 kt, extend up to 129 kt. Check for three green lights to confirm the gear is down and locked.
- The fuel selector has Left, Right and Off only, with no Both position. The PA-28R-201 guide says to switch tanks about every 30 minutes.
- Ask for the current licensed empty weight and C.G. in the log book. Any new equipment or modification requires a new calculation.

ENGINE, FUEL AND GEAR (PA-28R-201)

The engine is a 200 BHP, 4-cylinder, air-cooled, fuel-injected Lycoming IO-360, with an engine-driven fuel pump plus an electric pump. There is one tank per wing: 38.5 gal each, 77 gal total, 72 gal usable. The minimum fuel grade is 100. The gear is electric-hydraulic with the power pack behind the baggage compartment. If hydraulic fluid is lost, the gear drops by gravity and spring.

LOADING AND BALANCE

The PA-28R-200 manual lists a 2650 lb gross weight. Fuel is figured at 6 lb per gallon. Too far forward a C.G. makes rotation difficult. Too far aft, the airplane may rotate early or pitch up in the climb, with reduced stability. Retracting the gear adds a moment of +819 in-lbs. Recalculate before adding fuel.

WHAT TO CHECK WHEN BUYING

Look at the log book for current weight and balance entries and for alterations. One example is a minor-alteration Alpha Systems angle-of-attack installation on a PA-28R-200. Use the checklist items: fuel sumps and vents, hydraulic lines and gear struts, tires and brakes, oil, alternator belt, and stall warning. Ask whether the airplane has an automatic gear extender, which only some PA-28R-201 airplanes have.

SPECIFICATIONS

Engine Power Hp	200
Fuel Capacity Total Gal	77
Usable Fuel Gal	72

PERFORMANCE

Cruise 75pct 4000ft Kt	135
Fuel Flow 75pct 4000ft Gph	9.5
Cruise 65pct 4000ft Kt	124
Fuel Flow 65pct 4000ft Gph	8.5
Rotate Speed Kt	60
Max Crosswind Kt	17

V-SPEEDS

Vne Kts	183
Vno Kts	146
Va Kts	118
Vle Kts	129
Vlo Kts	107
Vfe Kts	103
Vs1 Kts	60
Vs0 Kts	55

WEIGHT & BALANCE

Max Gross Weight Lbs	2650
Unusable Fuel Lbs	10
Unusable Fuel Arm Inches	103
Datum Ahead Of Wing Leading Edge Inches	78.4

SAFETY NOTES

- An aft C.G. can lead to inadvertent stalls and spins, and spin recovery becomes harder as the C.G. moves aft of the approved limit.
- The gear has no mechanical up-lock and is held up by hydraulic pressure. Confirm three green lights on every landing.
- Limit starter cranking to 30 seconds, with a 2 minute interval between attempts.