

Piper J-3 Cub Model Guide

The Piper J-3 Cub is a two-seat, single-engine piston light airplane built from 1938 to 1947. It has a strut-braced, cloth-covered wing and a welded steel tube fuselage covered in fabric. Sample owner checklists show a 1220 lb gross weight, 12 gal of fuel and a 73 mph cruise. That suits slow, short-field flying rather than heavy loads or fast travel.

KEY TAKEAWAYS

- Two seats, 12 gal fuel, 1220 lb gross. One sample J3 shows 698 lb empty, 522 lb useful load and only 20 lb baggage.
- Modest performance in the sample checklists: 73 mph cruise, 38-39 mph stall, 450 fpm climb at gross and a 370 ft takeoff run.
- Details vary by aircraft: oil is 3-4 qts on one checklist and 5 qts on a J3-65 checklist. Check the exact airplane you are buying.
- Check fabric, strut and gear bolts, bungees, flying wires, tailwheel springs and hydraulic brake lines. The manual lists 20-hour and 100-hour inspections.

CONSTRUCTION AND WHAT TO LOOK AT

The service manual describes a 2-place monoplane with a strut-braced, two-spar, cloth-covered wing and a welded steel tube, cloth-covered fuselage. The main gear is a split-axle type with rubber cord shock absorbers. Hydraulic brakes and a steerable tail wheel were available. Checklists stress fabric condition, lift and jury struts, aileron cables, bungee covers and flying wires.

VARIANTS AND NUMBERS IN THE INPUTS

A J3 checklist (N78407) gives 698 lb empty, 522 lb useful load, 4.4 gph fuel burn and a 38 mph stall. A J3C-85 checklist gives 795 lb empty, 425 lb useful load, 4.5 gph, a 39 mph stall, 83 mph top speed, 122 mph Vne, a 290 ft landing roll and a 14000 ft absolute ceiling. Both show 1220 lb gross, 12 gal fuel and 370 ft takeoff run.

OPERATING HABITS TO EXPECT

Checklists call for a 1700 rpm run-up with a magneto drop of no more than 75 rpm. Climb at 55 mph, cruise at 2150 rpm and approach at 50-60 mph. The J3-65 checklist gives oil pressure 30-60 psi and a 225 degree F oil temperature limit, with carb heat warmed before power reduction.

SPECIFICATIONS

Seats	2
Production Start Year	1938
Production End Year	1947
Fuel Capacity Gal	12

PERFORMANCE

Climb Rate Fpm	450
Takeoff Run Ft	370
Landing Roll Ft	290
Absolute Ceiling Ft	14000
Fuel Burn Gph	4.4

WEIGHT & BALANCE

Empty Weight Lbs	698
Max Gross Weight Lbs	1220
Useful Load Lbs	522
Baggage Capacity Lbs	20

SAFETY NOTES

- Hand-propping: never stand in the propeller plane and always treat the prop as live (J3C-85 checklist).
- Do not roll the aircraft backwards on the tail wheel because it will not castor. Lift the tail and pull it back instead.
- Use carb heat as the checklists direct: warm it 15 seconds before reducing power on landing, and check the drop in rpm at run-up.