

Piper PA-30 Twin Comanche Model Guide

The Piper PA-30 Twin Comanche is a twin-engine piston airplane built from 1963 to 1972. It seats 4 to 6. The Piper handbook lists two 160 hp fuel-injected Lycoming IO-320-B engines, a 3600 lb gross weight, 90 US gal of fuel and a top speed of 205 mph. The Piper PA-30 Twin Comanche handbook is described as incomplete by modern standards, so a buyer should plan on getting an upgraded manual.

KEY TAKEAWAYS

- The Piper PA-30 Twin Comanche has two Lycoming IO-320-B engines of 160 hp each at 2700 rpm, with Hartzell constant-speed, full-feathering propellers.
- Gross weight is 3600 lbs and standard empty weight is about 2160 lbs, giving about 1440 lbs of useful load. Fuel capacity is 90 gal and maximum baggage is 200 lbs.
- Single-engine performance is limited: 260 fpm climb, a 5,800 ft single-engine service ceiling, and Vmc of 90 mph. Pilot training matters.
- Piper stopped production in 1972 and the original Owner's Handbook is incomplete by modern standards. The International Comanche Society offers an upgraded, FAA-approved GAMA-format manual.
- Accident reports in the inputs show landing-distance and low-speed approach problems. Check the landing distance in the flight manual against the runway length.

WHAT IT CARRIES AND HOW IT PERFORMS

The Owner's Handbook lists a 3600 lb gross weight, about 2160 lbs standard empty weight and about 1440 lbs standard useful load. It carries 90 US gal of fuel, 6 gal of it unusable (inboard tanks only), and fuel is 91/96 minimum octane. The baggage area holds up to 200 lbs, about 20 cubic ft, through a 20 x 20 in. door. Book speeds are a 205 mph top speed, 194 mph optimum cruise (75% power at 8,000 ft), 186 mph at 65% power at 12,000 ft and 181 mph at sea level at 75% power. Fuel burn for both engines is 17.2 gph at 75% power and 15.2 gph at 65%. Best rate of climb is 1460 fpm at 112 mph and service ceiling is 18,600 ft. Takeoff run is 1250 ft, or 2160 ft over a 50 ft barrier. Landing roll is 700 ft, or 2100 ft over a 50 ft barrier.

SINGLE-ENGINE AND SPEED REFERENCES

Vmc is 90 mph as determined by the FAA. Single-engine rate of climb is 260 fpm at the best single-engine climb speed of 105 mph, and the single-engine service ceiling is 5,800 ft. The checklists say to keep airspeed above 97 mph in single-engine flight and use 120 mph as the single-engine approach speed. They advise against a single-engine go-around where possible and say not to extend the gear or flaps until landing is assured. Other book speeds: stall 76 mph clean and 69 mph with gear and flaps down at gross weight, Vx 90 mph, Vy 112 mph, Vlo 150 mph and Vfe 125 mph.

VARIANTS, MANUALS AND PARTS SUPPORT

The International Comanche Society handout lists the PA30 at 3600 lb gross (1963-68 and 1969 serials), the turbocharged PA30T at 3725 lb, and the PA39 and PA39T (1970-72) at 3600 lb and 3725 lb. Confirm which manual matches the airplane's serial number. The upgraded POH and AFM is sold to ICS members at \$75.00 each plus shipping. Webco Aircraft's list shows PA30 support items including fuel cell gaskets, fuel caps, strut seal kits, gear bungee arms, oil cooler hose kits, a door latch kit and control cables. Their presence suggests these are the wear and repair areas to inspect.

WHAT TO CHECK BEFORE BUYING

The preflight checklists point to areas to inspect: fuel cells, caps and vents; landing gear struts, tires, microswitches and doors; cowl flaps; the cabin and baggage door seals and locks; and the stall warning system. Check that the gear shows all green and that the manual extension system works. The checklists also cover the electrical system: each engine has a generator and the emergency procedures include generator failure. Review the engines and propellers for

SPECIFICATIONS

First Year	1963
Last Year	1972
Seats Min	4
Seats Max	6
Rated Horsepower Hp	160
Engine Count	2
Wing Span Ft	36
Length Ft	25.2
Height Ft	8.2
Fuel Capacity Gal	90
Unusable Fuel Gal	6
Max Baggage Lbs	200

PERFORMANCE

Best Rate Of Climb Fpm	1460
Single Engine Rate Of Climb Fpm	260
Service Ceiling Ft	18600
Absolute Ceiling Ft	20000
Single Engine Service Ceiling Ft	5800
Single Engine Absolute Ceiling Ft	7100
Takeoff Run Ft	1250
Takeoff Distance Over 50ft Ft	2160
Landing Roll Ft	700
Landing Distance Over 50ft Ft	2100
Fuel Consumption 75 Percent Gph	17.2
Fuel Consumption 65 Percent Gph	15.2

WEIGHT & BALANCE

Max Gross Weight Lbs	3600
Empty Weight Lbs	2160
Useful Load Lbs	1440
Max Baggage Lbs	200
Fuel Capacity Gal	90
Unusable Fuel Gal	6

SAFETY NOTES

- The Owner's Handbook says it is not a substitute for competent flight instruction and not a transition guide from single-engine to multi-engine flying. The FAA-approved Airplane Flight Manual governs where the two disagree.
- Do not extend the gear or flaps on a single-engine approach until landing is assured, and avoid a single-engine go-around where possible.
- In a 2011 AAIB case, a hard landing bent the wing spars and the main and rear spars of the left wing were distorted. The flight manual's landing distance with grass correction was 972 m against a 700 m runway. Low airspeed on short final may have been a factor.
- If airborne before Vmc of 90 mph on a short or soft field takeoff, the checklist says to fly low to reach Vmc and be ready to reduce power promptly.

leaks and for correct feathering and unfeathering. Review the aircraft's inspection and squawk records.