

Piper PA-31P Pressurized Navajo Model Guide

The Piper PA-31P Pressurized Navajo is a pressurized piston twin built from 1970 to 1981 per the library record, with 6 to 8 seats. It uses a swept Navajo Chieftain fuselage and two geared, turbocharged Lycoming TIGO-541 engines. The Pipers article calls it the heaviest, most powerful piston Piper ever built. It is a capable but costly airplane to run.

KEY TAKEAWAYS

- Gross weight is 7800 lb, with a cabin 50 inches wide and 50 inches tall, and 6 to 8 seats.
- Each Lycoming TIGO-541-E1A is rated 425 hp, but TBO is only 1200 hours, so engine condition drives the price.
- Fuel burn is about 90 gph at full power and 58 gph at high cruise; capacity is up to 242 gallons.
- Check logbooks for Piper Service Bulletin 991A (alternator-out light fuse), which the FAA has asked owners about.

ENGINES: THE MAIN COST RISK

The Pipers article calls the engines the Achilles heel. TBO is 1200 hours, described as the shortest of any semi-modern engine, and no other production aircraft used the TIGO-541. The article's owner said the only shop other than Lycoming that he knew was authorized to overhaul them was Victor Aviation. Ask for overhaul records.

SIZE, FUEL AND HANGAR NEEDS

The airplane carries up to 242 gallons of fuel. Oil capacity is 18 quarts per side. Wingspan is nearly 41 feet and the tail is more than 13 feet high, so it normally needs a community hangar or a very large individual one. The article's owner says it is very expensive to maintain and operate.

FAMILY CONTEXT (NOT THIS VARIANT)

The registry family record for the PA-31 (variants PA-31, PA-31-300, PA-31-325, PA-31-350) shows figures of up to 880 nm range, 183 kt cruise, 24000 ft service ceiling and 8 passengers. These are family maximums, not PA-31P figures. Confirm the PA-31P's numbers in its own flight manual.

SPECIFICATIONS

Engine Power Hp	425
Manifold Pressure Inches	45
Fuel Capacity Gal	242
Cabin Width Inches	50
Cabin Height Inches	50

PERFORMANCE

Fuel Flow Full Power Gph	90
Fuel Flow High Cruise Gph	58

WEIGHT & BALANCE

Max Takeoff Weight Lbs	7800
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SAFETY NOTES

- Lycoming warns the engines have a dynamic counterweight system: avoid high rpm with low manifold pressure and move the throttle smoothly, not rapidly.
- SB 991A: a failed alternator-out light solid state switch can release smoke. Fix is fuse P/N 461-643; PA-31P serials 31P-3 to 31P-80 and 31P-7300110 to 7730012 are affected.
- The FAA's October 2021 Airworthiness Concern Sheet asks owners whether SB 991A was done; it noted a related smoke event in another Piper model. Verify the logbook entry.