

Piper PA-31 Navajo Chieftain Model Guide

The Piper PA-31 Navajo Chieftain is a twin-engine piston aircraft built from 1973 to 1984, with 6 to 10 seats. The PA-31-350 figures in the supplied checklist show 350 hp per engine and a 7000 lb maximum takeoff weight. Buyers should focus on wing spar life, exhaust, heater and baffle condition, and cowlings security. No cruise or range data was supplied.

KEY TAKEAWAYS

- Built 1973-1984, seats 6 to 10. The PA-31-350 is rated 350 hp per engine with a 7000 lb maximum takeoff weight.
- Wing spar splice plate: the Australian AD requires replacement at 13,000 hours time in service, or 2000 hours after an approved inspection.
- Fuel: 192 gal total, 182 gal usable, 100/130 avgas. Baggage limit is 200 lb forward and 200 lb aft.
- Recurring checks: exhaust every 100 hours, heater pressure test every 100 heater hours, baffle seals every 55 hours (unless reinforced).

AIRFRAME AND WING STRUCTURE

CASA AD/PA-31/124 covers all PA31-350 Chieftains and requires the main wing spar splice plate to be replaced and inspected for fretting, corrosion or cracks. STC 83-7 adds a wing spar strap and inspection program, but the airframe life limit still applies. A CASA bulletin warns some aircraft lack correct wing leading edge stall strips, which may have been lost when de-ice boots were removed or the wings repainted.

ENGINES, EXHAUST AND HEATER

AD 82-16-05 calls for exhaust coupling and tailpipe removal and V-band crack inspection every 100 hours. A later AD adds a turbocharger flange check for warping. Hartzell ASB 071 requires a heater pressure decay test within ten hours, then every 100 heater hours, or the heater must be disabled. CASA AD/PA-31/96 requires baffle seal inspection every 55 hours, because of overheating from blown-back seals.

TRAINING AND PREFLIGHT POINTS

SIMCOM offers a 4-day initial Navajo course (16.0 ground, 8.0 simulator hours) and a 2-day recurrent. Entry requires a private certificate with multi-engine land and an instrument rating. The checklist asks for a minimum of 8 qts of oil and checks of the four nose bowl screws and the cowl side fasteners.

SPECIFICATIONS

Power Per Engine Hp	350
Total Fuel Gal	192
Usable Fuel Gal	182

PERFORMANCE

Max Crosswind Kts	25
Engine Out Climb Speed Kts	106

V-SPEEDS

Vne Kts	236
Vno Kts	185
Va Kts	162
Vyse Kts	106
Vy Kts	101
Vr Kts	85
Vx Kts	84
Vmca Kts	76

WEIGHT & BALANCE

Max Takeoff Weight Lbs	7000
Max Baggage Forward Lbs	200
Max Baggage Aft Lbs	200

SAFETY NOTES

- Missing or loose nose bowl and cowl fasteners may cause in-flight cowl separation and loss of aircraft control. Check them on every preflight.
- After an engine failure in flight, maintain at least 106 kts. Minimum control speed is 76 kts (KIAS, per the Chilean operator checklist).
- Spins are prohibited in the Normal category. Hartzell advises not using the combustion heater during the ten hours before the pressure test is done.