

Piper PA-34 Seneca II Model Guide

The Piper PA-34 Seneca II is a twin-engine piston airplane built from 1975 to 1981, with 4 to 7 seats. The handbooks list two Continental TSIO-360 engines of 200 hp each, constant-speed full-feathering propellers, retractable tricycle gear and 93 usable gallons of fuel. No range or cruise figures were supplied, so none are quoted here.

KEY TAKEAWAYS

- Two Continental TSIO-360 engines, 200 hp each at sea level, with full-feathering props. Fuel is 100 green or 100LL blue; 93 gal usable.
- Max takeoff weight is 4570 lbs in the 1976 handbook. A 1980 handbook lists 4407 lbs, so confirm the figure for the specific serial number.
- The accident reports centre on landing gear. Check nose and main gear downlocks, linkage lubrication and the electric hydraulic pump.
- AD 86-17-01 required ammeter replacement on serials 34-7570001 to 34-8170092. Confirm it was done.

ENGINES, PROPS AND FUEL

The 1976 and 1980 handbooks list two six-cylinder, air-cooled Continental TSIO-360E or TSIO-360EB engines, 200 hp at sea level and 215 at 12,000 ft, with a rated speed of 2575 rpm. Props are Hartzell or McCauley, constant-speed and full-feathering. A Hartzell three-blade propeller STC exists for serial 34-7570001 and up. Fuel is 98 gal total, 93 usable.

WEIGHTS AND LOADING

The 1976 handbook gives a standard empty weight of 2823 lbs and a maximum useful load of 1747 lbs. It also lists a maximum zero fuel weight of 4000 lbs, so any weight above that must be fuel. Each baggage compartment, forward and aft, is limited to 100 lbs. These values are approximate and vary between airplanes, so ask for the actual weighing.

LANDING GEAR: WHAT TO CHECK

The gear is electro-hydraulic with an emergency free-fall extension. AAIB reports on Seneca IIs describe a fatigued nose-gear downlock bolt, a mis-rigged nose downlock spring link, and a left main downlock stiffened by corrosion and poor lubrication. In the last case the electric pump had burnt out. Check the free-fall test, the green-light indications and the maintenance records.

SPECIFICATIONS

Engine Power Sea Level Hp	200
Engine Power 12000 Ft Hp	215
Fuel Capacity Gal	98
Usable Fuel Gal	93
Propeller Diameter Max In	76
Propeller Diameter Min In	75

V-SPEEDS

Best Rate Climb Kts	89
Best Angle Climb Kts	76
Cruise Climb Kts	102
Downwind Kts	98
Final Approach Kts	87
Gear Extended Max Kts	129

WEIGHT & BALANCE

Max Takeoff Weight Lbs	4570
Max Landing Weight Lbs	4342
Max Zero Fuel Weight Lbs	4000
Standard Empty Weight Lbs	2823
Max Useful Load Lbs	1747
Baggage Forward Max Lbs	100
Baggage Aft Max Lbs	100

SAFETY NOTES

- AD 86-17-01: replace the ammeter with kit 765-186 per Piper Service Bulletin 811A, to prevent cockpit smoke and possible complete electrical failure.
- A Seneca II nose gear collapsed during taxi after a repair that fitted a second-hand downlock spring link. Verify the rigging after any gear repair.
- Crossfeed is for cruise only. The handbook says not to select it on both engines, and the fuel selector for the inoperative engine should be off.