

Data Sheet - Seneca I (PA34-200)**Weights**

Aircraft Number	Empty Weight	Empty Moment	Useful Load
55908	2786.8 lbs.	235743.5	1413.2 lbs.

Maximum Weights

Ramp Weight	4200 lb.
Takeoff Weight	4200 lb.
Landing Weight	4000 lb.
Baggage Weight	200 lb.
Area 1	100 lb.
Area 2	100 lb.

Powerplant

Engines: Lycoming IO-360 on left side, LIO-360 on right side, 200BHP @ 2700 RPM. Four cylinders, direct drive, horizontally opposed, air cooled.

Oil: Full	8 qt.
Min. for Local Flight	6 qt.
Min. for X-Country	7 qt.
Grade and Type	Summer - 100W50 wt.
	Winter - 65W30 wt.

Fuel System

Fuel: Approved Grades	100LL (blue), 100 (green)
Total Fuel	98.0 Gal.
Total Usable	93.0 Gal.

System Description: The airplane is equipped with a standard fuel system consisting of four vented fuel tanks, fuel tank selector valves, fuel strainer, engine driven fuel pump, auxiliary electric fuel pump, and fuel injection system. Fuel is pressure feed from the wing tanks to the fuel selector/crossfeed valve, through a fuel strainer to the fuel pumps and then to the fuel metering unit. From the metering unit, fuel flows to the intake valves through injectors. Electrical driven fuel pumps are used as backup pumps and should be on for takeoff and landing. Crossfeed valves are provided for fuel balance to extend single engine range. There are 8 fuel drains on this aircraft, 2 for each wing, 2 for fuel filters, and 2 for each crossfeed drain.

Landing Gear and Brakes

System Description: The landing gear is electrically controlled and hydraulically operated. The hydraulic pump is a two-way reversible pump and is electrically operated. It is easily damaged if the *Gear selector switch* is moved during transitions. The gear is held in the up position by hydraulic pressure and in the down position by a series of springs. Electrical limit switches stop the flow of current to the motor of the hydraulic pump when the gear is fully up or down. Three green lights indicate that the gear is down and locked. A microswitch on the throttle quadrant activates the gear warning horn if the throttle is positioned at or below 14" with the gear up. The gear warning horn will also activate if the gear selector switch is placed in the UP position while the airplane is on the ground. A safety switch is installed on the left main gear to prevent the gear from being retracted during ground operations. The gear is to be retracted by 125 mph and extended at or below 150 mph. Emergency gear extension is accomplished by relieving the hydraulic pressure. A knob located near the throttle quadrant, when pulled, releases the hydraulic pressure, allowing the gear to free fall.

Tire Inflation: Mains 53 psi.
Nose 31 psi.

Electrical System

Alternator - 14 volt, 60 ampere
Battery - 12 volt

System Description: Electrical power is supplied by two 60-ampere alternators. A 35 ampere-hour 12 volt battery provides current for starting, for use when the engines are not running, and for a source of stored electrical power to back up the alternator output.

Pitot-Static System

System Description: The system is standard with a heated pitot head under the left wing and static ports on both sides of the nose cowling. The alternate static source is located below the panel next to the throttle and supplies static pressure from inside the cockpit.

Speeds

Best Rate of Climb Single Engine	Vyse	105 MPH
Minimum Controllable Airspeed	Vmc	80 MPH
Stall in landing configuration	Vso	69 MPH
Stall in cruise configuration	Vs1	76 MPH
Rotate Speed	Vr	90 MPH
Best angle of climb	Vx	90 MPH
Best rate of climb	Vy	105 MPH
Maneuvering Speed	Va	
	4200 lb.	146 MPH
	2750 lb.	133 MPH
Flaps extended	Vfe	
	0-10°	160 MPH
	10-25°	140 MPH
	25-40°	125 MPH
Max. Landing Gear Operating Speed	Vlo	125 MPH
Max. Landing Gear Extended Speed	Vle	150 MPH
Max. Structural Cruising Speed	Vno	190 MPH
Enroute Climb Speed		120 MPH
Approach Speed		115 MPH
Final Approach Speed		90 MPH
Never Exceed	Vne	217 MPH
Demonstrated Crosswind Component		12 MPH