Piper Apache 235 Specs

Weights

Aircraft #	Empty Weight	Empty Moment	Max Gross Weight	Useful Load
N4920P	2,941 lbs	262,971	4,800 lbs	1,859 lbs

Powerplant

Engines:

Lycoming O-540, 235 BHP @ 2575 RPM. Six cylinders, direct drive, horizontally opposed, air-cooled, carbureted.

Propellers:

Hartzell constant speed, controllable pitch, full feathering. Avoid operation below 2000 RPM at manifold pressure settings over 25". Normal cruise settings are 19" MP and 2300 RPM.

Oil:

Maximum	12.0 qts.
Minimum for Local Flight	9.0 qts.
Minimum for X-Country	10.0 qts.
Grade and Type	Phillips 20W-50 X-C

Fuel System

Fuel:

Approved Grades	100LL (blue), 80/87
Total Fuel	144 Gal.
Fuel Burn	Approx. 22 GPH – Consult POH

System Description:

The airplane is equipped with a standard fuel system consisting of four vented fuel tanks, two fuel tank selector valves, fuel strainers, two manual primers, an engine-driven fuel pump for each engine, and an auxiliary electric fuel pump for each engine.

- The electric fuel pumps must be on for takeoff and landing, and when crossfeeding.

Landing Gear and Brakes

Tire Inflation:

Mains	27 PSI
Nose	30 PSI

Speeds

		MPH
Stall in Landing Configuration	V_{SO}	62 MPH
Stall in Clean Configuration	V_{S1}	72 MPH
Rotate Speed	V_R	80 MPH
Best Angle of Climb	V_X	90 MPH
Best Rate of Climb	V_Y	110 MPH
Enroute Climb	-	130 MPH
Maneuvering Speed	V_A	145 MPH
Flap Extension Speed	V_{FE}	125 MPH
Max Structural Cruising Speed	V_{NO}	198 MPH
Never Exceed	V_{NE}	249 MPH
Minimum Control Speed w/ Critical Engine inoperative.	V_{MC}	80 MPH

✈ Pilot Tips:

- Normal cold start should take 3 shots of prime. A hot start should take no prime at all. Under extreme cold, taxi with the carb heat on until its time for the run-up.
- After takeoff, reduce power to 24”MP/2400 RPM. Cruise climb at 130 MPH.
- Cruise speed 165 kts.
- Normal cruise power setting is 19” MP and 2300 RPM. Lean engines to approximately 1450°F.
- Range: 850 nm w/ Reserves.
- Left engine is the critical engine.
- Left engine runs hydraulic pump. If the left engine fails after takeoff, it may be necessary to manually pump the gear up for adequate climb performance. Refer to the POH for the proper procedure.
- Flap extension and retraction is very rapid due to the high efficiency of the hydraulic system. Region Flyers recommends extending and retracting flaps incrementally to avoid large changes in required control pressure throughout all phases of flight.
- Fuel burn will be greatly affected by proper mixture leaning techniques. Refer to POH for the best technique.