

Piper PA-28 Dakota Model Guide

The Piper PA-28 Dakota is a four-seat, single-engine piston airplane built from 1979 to 1994. It has a 235 hp Lycoming O-540, fixed landing gear, a tapered wing and 72 gallons of usable fuel. Maximum takeoff weight is 3000 lbs, and the factory standard useful load is 1392 lbs. A club checkout notes it needs a high-performance endorsement and has heavier controls than an Archer.

KEY TAKEAWAYS

- 235 hp Lycoming O-540 with a two-blade Hartzell constant-speed propeller; recommended TBO is 2000 hours.
- Max takeoff weight 3000 lbs; standard empty weight 1608 lbs, useful load 1392 lbs, baggage limit 200 lbs.
- Fuel: two 38.5 gal tanks, 72 gal usable, 100LL. The selector has OFF, LEFT and RIGHT only, with no BOTH position.
- Published max speed 148 kts, 144 kts at 75% power (best power), 1110 fpm sea-level climb, 17,500 ft service ceiling.

WHAT IT IS

The Piper PA-28 Dakota was introduced in 1979 as the second generation of the PA-28-235 Pathfinder. It is almost identical except for a new tapered wing, which made it faster, gave it more fuel and improved climb. A club checkout calls it heavier on the controls than an Archer and says a high-performance endorsement is required.

PUBLISHED PERFORMANCE

At sea level, zero wind and standard temperature: takeoff ground run 886 ft, 1216 ft over a 50 ft obstacle. Landing roll with standard brakes is 825 ft, 1725 ft over 50 ft. The factory sheet also lists H.D. brake figures of 640 ft and 1530 ft. Range including a 45 minute reserve is 650 nm at 75% best power, up to 810 nm at 55% best economy.

WHAT TO CHECK WHEN BUYING

Look for the maintenance manual (reissued 1986, revised through February 1995) and the vendor manuals for the Lycoming O-540, Hartzell propeller and Bendix magnetos. A.B.S. thermoplastic gear and strut fairings have their own repair manual. Club notes give oil as 12 quarts full, max oil temperature 245 F and max CHT 500 F. The airplane has three fuel drains and a 14-volt, 60A alternator.

SPECIFICATIONS

Engine Power Hp	235
Fuel Total Gal	77
Fuel Usable Gal	72
Fuel Per Tank Gal	38.5

PERFORMANCE

Max Speed Kts	148
Cruise 75pct Best Power Kts	144
Rate Of Climb Fpm	1110
Service Ceiling Ft	17500
Takeoff Ground Run Ft	886
Takeoff Over 50ft Ft	1216
Landing Ground Roll Ft	825
Landing Over 50ft Ft	1725

V-SPEEDS

Best Glide Kts	85
Va 3000lbs Kts	124
Va 2500lbs Kts	113
Va 2000lbs Kts	102
Shortest Landing Approach Kts	72
Max Demonstrated Crosswind Kts	17

WEIGHT & BALANCE

Max Takeoff Weight Lbs	3000
Standard Empty Weight Lbs	1608
Standard Useful Load Lbs	1392
Max Baggage Lbs	200
Fuel Usable Gal	72

SAFETY NOTES

- Best glide is 85 KIAS. After an engine power loss: switch tanks, electric fuel pump ON, mixture RICH, carburetor heat ON.
- Turn the electric fuel pump ON and verify fuel pressure before changing tanks; there is no BOTH detent.
- If the ALT light comes on, check the ammeter and ALT circuit breaker. The battery is then the only power source, so land as soon as practical.