

CESSNA T-182 Turbo Skylane Model Guide

The CESSNA T-182 Turbo Skylane is a single-engine piston, turbocharged, fuel-injected Skylane with a constant-speed propeller. The 182 family seats up to 4 and is listed at up to 930 nm range and 174 kt cruise across its variants. Details below come from a flying-club T182T operating manual (Lycoming TIO-540-AK1A, 235 BHP) and a Cessna turbocharging course.

KEY TAKEAWAYS

- Turbocharged: holds sea-level manifold pressure as you climb, so power does not fade with altitude. Certified to 20,000 ft.
- Bigger step up from a 172: constant-speed prop, cowl flaps, fuel injection, oxygen, faster and heavier with higher wing loading.
- Maximum landing weight is below maximum takeoff weight, so check weight and balance for landing as well as takeoff.
- Fuel burn is higher: engine display marks 16 GPH for normal enroute climb and 24 GPH for maximum-performance climb.

POWERPLANT AND LIMITS

Lycoming TIO-540-AK1A, 235 rated BHP at 32 in Hg and 2400 RPM.
Recommended climb 25 in and 2400 RPM; cruise 24 in and 2300 RPM. Limits: CHT 500°F, oil temperature 245°F, oil pressure 20 to 115 PSI. Fuel is 100LL. McCauley propeller, 79 inches diameter. The club requires SAE 15W50 oil with a 5 QT minimum.

OPERATING LIMITS (CLUB MANUAL)

Flaps: takeoff 0° to 20°, landing 0° to FULL. Club limits: 10 kt tailwind, 15 kt crosswind, paved runways of at least 2500 ft or the POH figure if greater. An operational autopilot is required for IMC. Autopilot range is 80 to 160 KIAS. These are club rules and may be stricter than the POH.

WHAT TO CHECK WHEN BUYING

Turbo parts to inspect: waste gate, turbine inlet temperature probe, oil accumulator, compressor, turbine and over-boost (manifold pressure relief) valve. If overboost persists with normal oil temperature, or reaches 3 inches or more, the controller system, waste gate and relief valve need adjustment or replacement.

SPECIFICATIONS

Rated Power Hp	235
Propeller Diameter Inches	79
Minimum Fuel Gal	46

PERFORMANCE

Max Operating Altitude Ft	20000
Max Crosswind Kts	15
Max Tailwind Kts	10
Min Runway Length Ft	2500
Fuel Flow Normal Climb Gph	16
Fuel Flow Max Performance Climb Gph	24

V-SPEEDS

Flap Speed 0 To 10 Kts	140
Flap Speed 10 To 20 Kts	120
Flap Speed 20 To Full Kts	100
Autopilot Max Speed Kts	160
Autopilot Min Speed Kts	80
Recommended Approach Speed Kts	100

SAFETY NOTES

- Rapid throttle movement with cold oil can overboost the engine. A 2 to 3 inch overboost is acceptable only if momentary.
- High-altitude flight carries hypoxia risk. Confirm enough oxygen is aboard and know how to use and monitor the oxygen system.
- Club minimum fuel is the flight requirement plus 45 minutes, or 46 U.S. gallons, whichever is greater.