SOCATA TB-30 EPSILON Model Guide

The SOCATA TB-30 EPSILON is a two-seat, low-wing, single-engine piston military basic trainer with tandem seating and retractable gear. 174 were built from 1983 to 1989, and some are now privately owned. The only manual supplied is a flight-simulator add-on manual, so verify every figure against real aircraft documents.

KEY TAKEAWAYS

- Tandem two-seater with a 300 HP six-cylinder Lycoming, constant-speed Hartzell prop and retractable tricycle gear.
- Civil-converted ex-French Air Force examples have civil radios and Garmin G5 displays in place of the military avionics.
- A mandatory Cleveland brake-disc inspection applies to 40-90 and 40-90B main wheels fitted with disc P/N 164-02201.
- Specs come from a simulator add-on manual, not a certified POH, so confirm them in the real aircraft's papers.

AIRFRAME AND POWERPLANT

Quoted figures: empty weight 870 kg, max takeoff weight 1250 kg, fuel capacity 210 L, limits +5.5 G / -2.75 G. The engine is an air-cooled, fuel-injected, flat six rated 300 HP at 2700 rpm. An Automatic Mixture Controller sets best-power mixture. Flaps are electric and go to 25 degrees.

SYSTEMS TO INSPECT

Check the hydraulic landing gear (electric pump), the gear lights and the warnings. The horn sounds if flaps are past 20 degrees with gear up. The fuel system has two wing tanks and a feeder tank with a drain below the nose. The 24 V battery is paired with a 70 A alternator. The hot-air intake for carb-icing protection is unfiltered. The canopy runs on rollers, and an unlocked canopy shows a CABINE light.

BRAKE DISC SERVICE BULLETIN SB7071

Cleveland SB7071 (Rev A, June 2002) lists the TB30 Epsilon among aircraft that may have Parker 40-90 or 40-90B main wheels with brake disc P/N 164-02201. Cracks or separation can cause loss of directional control or braking during taxi. Compliance is mandatory: within 25 flight hours, at the next annual or at the next tire change, whichever comes first. Re-inspect at each following annual or tire change. Check the logbook entries.

SPECIFICATIONS

Engine Power Hp	300
Max Engine Speed Rpm	2700
Max Altitude Ft	12000
Max Crosswind Kt	25
Fuel Capacity L	210
Flap Max Deg	25

WEIGHT & BALANCE

Empty Weight Kg	870
Max Takeoff Weight Kg	1250

SAFETY NOTES

- Do not use the middle fuel selector position; it may cause fuel transfer incidents.
- Inverted flight is limited: fuel feed stops after about two minutes and the engine shuts down.
- Brake disc separation can cause loss of directional control; inspect the main wheel discs at preflight.

AI-aggregated guide for the SOCATA TB-30 EPSILON · sources: TB-30 Epsilon – Flight Manual (#100261) · SERVICE BULLETIN (#100262) · generated 2026-10-19 · Reference only, not for flight. Check the original documents before relying on this guide.