

Beechcraft B36TC Bonanza Model Guide

The Beechcraft B36TC Bonanza is a turbocharged single-engine piston Bonanza built from 1982 to 2005, seating 4 to 6. It adds Baron wing tips and a strengthened wing to the A36TC, which gives it far more fuel capacity. It cruises high and fast. Buyers should check the turbo system, weight and balance, and several airworthiness items.

KEY TAKEAWAYS

- Gross weight is 3,850 lb and useful load 1,528 lb, up from the A36TC's 3,650 lb and 1,397 lb (1983 AOPA Pilot report).
- Usable fuel is 102 gal, about 5.25 hours at 75% power and 20,000 ft with a 45-minute reserve. The A36TC with optional tanks managed 3.8 hours.
- At FL250 it cruises at 200 kt at 79% power (16.6 gph) or 162 kt at about 54% power (11.2 gph).
- With full fuel and only the front seats occupied, turbo Bonanzas commonly sit forward of the CG limit. Ballast in the aft baggage area may be needed.

WHAT CHANGED FROM THE A36TC

Baron wing tips added 52 inches of wingspan. The wing was strengthened with the Model 58 Baron main spar and fuselage carry-through structure. Each leading edge holds two interconnected fuel bladders, one of 40 gal and one of 14 gal. Dual vortex generators on the outboard leading edges were added to improve spin characteristics.

HANDLING AND CHECKOUT

The 1983 AOPA Pilot report found mixed stall results. One pilot found stalls gentle, while another saw a sharp right-wing roll-off in power-off stalls, possibly from an out-of-rig airplane. Spins are prohibited. The American Bonanza Society recommends a checkout with an instructor who knows the model, and a careful read of the POH and its supplements, including the Turbine Inlet Temperature (TIT) limit.

AIRWORTHINESS ITEMS TO VERIFY

Check records for: SB 53-3341 (missing right-hand fuselage rivets; B36TC serials EA-242 and EA-273 through EA-635); the wing forward spar carry-through AD (B36TC to EA-471); flap flex shaft replacement (serials EA-652 through EA-677 are noted); and wing bolt, nut and fitting inspection, with a 20-year bolt life. The AD documents provided are Australian CASA directives.

SPECIFICATIONS

Seats Min	4
Seats Max	6
Usable Fuel Gal	102
Max Operating Altitude Ft	25000

PERFORMANCE

Max Cruise Speed Kts	200
Economy Cruise Speed Kts	162
Max Cruise Fuel Flow Gph	16.6
Economy Cruise Fuel Flow Gph	11.2

WEIGHT & BALANCE

Max Gross Weight Lbs	3850
Useful Load Lbs	1528

SAFETY NOTES

- Flight in icing conditions is prohibited unless the airplane is modified by STC. Spins are prohibited.
- Compute landing CG as well as takeoff CG. CG shifts aft with fuel burn, so endurance may be limited to stay within landing CG limits.
- The CASA wing bolt AD requires a recess corrosion check every 12 calendar months, with bolt inspection every 10 years (private) or 5 years (other operations).