

BEECHCRAFT F33A Model Guide

BEECHCRAFT F33A is a single-engine piston Bonanza from the Beechcraft 33 family. The family is listed at up to 5 passengers, 161 kt cruise, 540 nm range and 19,000 ft ceiling. Those are family maxima, not F33A figures. The documents give F33A weights, CG limits, speeds, wing tip tank data and inspection items.

KEY TAKEAWAYS

- BEECHCRAFT F33A has a Utility category at 3400 lb or less. Normal category applies above 3400 lb or with fuel in the tip tanks.
- The optional two-tank wing tip fuel STC adds 40 gal usable and raises max takeoff weight to 3600 lb.
- The F33A is on FAA AD 2009-25-01, a shoulder harness washer check, for serials CE-634 through CE-1536.
- Main wheel halves need a wear-limit inspection (Parker SB7106) at every tire change, annual and overhaul.

TIP TANK STC: WHAT CHANGES

With the STC tip tanks (SA153EA or SA02722CH), BEECHCRAFT F33A carries 20 gal in each tank, all usable. Increase takeoff and landing chart values by 13.5% and decrease rate of climb by 6%. Range drops 6% and endurance 9% at max weight with empty tip tanks. Takeoff is prohibited with more than 1/4 tank fuel difference between the tip tanks.

BUYER INSPECTION CHECKLIST

Check that the AD 2009-25-01 shoulder harness washer inspection is logged. Check main wheel halves against SB7106 limits. F33A serials CE-301 through CE-634 use Parker 40-83 wheels, and CE-635 and later use 40-83A. Test the landing gear safety system at preflight. If fitted, check the tip tank drains and filler caps.

LANDING GEAR SAFETY SYSTEM

Where fitted, the system is a backup only, and normal use of the gear switch is mandatory. With the system ON, the gear extends automatically below about 104 kts IAS at low manifold pressure. It will not retract below about 78 kts IAS unless the switch is OFF. Preflight, use the TEST function and listen for the solenoid.

SPECIFICATIONS

Engine Type	piston
Tip Tank Capacity Gal	40
Tip Tank Usable Gal	40
Tip Tank Each Gal	20
Min Fuel Per Tank For Takeoff Gal	13

PERFORMANCE

Cruise Tas 75pct SI Kts	159
Cruise Fuel Flow 75pct SI Gph	15.2
Best Glide Speed Kts	105
Cruise Climb Speed Kts	107
Emergency Descent Speed Kts	154
Max Demonstrated Crosswind Kts	17

V-SPEEDS

Vne Kts	196
Vno Kts	167
Va Kts	134
Vfe Approach Kts	154
Vfe Full Kts	123
Vle Kts	154
Vx Kts	77
Vy Kts	96

WEIGHT & BALANCE

Max Ramp Weight Stc Lbs	3612
Max Takeoff Weight Stc Lbs	3600
Max Landing Weight Stc Lbs	3600
Cg Aft Limit Inches	86.7
Cg Forward Limit 3600 Lb Inches	82.1
Cg Forward Limit 2800 Lb Inches	77
Tip Tank Fuel Arm Inches	87

SAFETY NOTES

- AD 2009-25-01: an incorrect washer in the pilot and copilot shoulder harnesses could cause a malfunction and occupant injury.
- Do not take off with more than 1/4 tank tip tank fuel difference. In flight, if the difference exceeds 1/2 tank, land with flaps up.
- Spins and acrobatic maneuvers are prohibited in Normal category, which applies above 3400 lb or with tip tank fuel.