

Mooney M20M Bravo Model Guide

The Mooney M20M Bravo (the service bulletins call it the M20M, Mooney TLS or Mooney Bravo) is a four-seat, single-engine piston airplane built from 1989 to 2008. The inputs describe a turbocharged Lycoming TIO-540 six-cylinder with oil-cooled exhaust-valve guides. They contain little variant-specific performance data, so confirm figures in the POH.

KEY TAKEAWAYS

- Four-seat, single-engine piston airplane, produced 1989 to 2008.
- The Bravo engine adds oil-cooled exhaust-valve guides to address top-end wear on the earlier TLS.
- Early serial numbers (27-0001 onward) are covered by several Mooney service bulletins. Check the logbooks for compliance.
- Standard electrical system: dual batteries and twin 24-volt, 70-amp alternators.

ENGINE AND KNOWN WEAR

The Bravo uses a Lycoming TIO-540 with a "wet-head" feature: oil feeds a gallery beside each exhaust-valve guide to cool it. It was fitted because many earlier TLS owners needed top-end work at 400 to 500 hours, with guide wear, rising oil consumption and falling compression. Ask for compression and oil-use history.

SERVICE BULLETINS TO VERIFY

SB M20-248 (S/N 27-0001 to 27-0052): a retrofit is mandatory to fly above 3200 pounds takeoff weight, up to 3368 pounds. SB M20-283A (27-0001 to 27-0321): exhaust deflection shield and new tailpipe V-band clamp. SI M20-88A (27-0001 to 27-0058): stabilizer trim stop modification.

EQUIPMENT NOTED IN THE REVIEW

The 1998 AOPA review lists dual batteries and twin 24-volt, 70-amp alternators as standard. It also praises the leather interior and built-in oxygen system. Avionics vary by airplane, so inspect the installed panel and confirm what the airplane actually has.

SAFETY NOTES

- SB M20-283A: a loose tailpipe V-band clamp nut let hot exhaust gas into the engine compartment. Replace the clamp after two documented removals.
- SI M20-88A: after manually driving the trim wheel to an extreme, the electric trim may not move off the stop. Turn it manually first.
- Check records for turbocharger wastegate assemblies shipped between November 05, 2018 and May 15, 2019 (Hartzell SB 079). Affected units must be replaced.