

MOONEY M20C Model Guide

MOONEY M20C is a single-engine piston Mooney in the M20 family. Family variants carry up to 4 passengers. The supplied documents give no M20C-specific specs or performance figures, so this guide covers the FAA control wheel concern, parts support and a speedbrake STC.

KEY TAKEAWAYS

- The FAA has an open concern about fatigue cracks in the M20C control wheel shaft and attachment hub.
- An existing AD requires control shaft inspection every 500 hours TIS, or every 1000 hours if strengthened per SB M20-205B.
- Parts come only through authorized Mooney facilities. The parts catalog lists both electric and manual gear retraction systems.
- A Precise Flight electronic speedbrake STC covers the M20 series, but installation means cutting the wing skins.

CONTROL WHEEL AND SHAFT CONCERN

The FAA's September 24, 2024 Airworthiness Concern Sheet covers the M20C, M20D, M20E, M20F and M20G. It reports control wheel separations on M20C aircraft from fatigue cracks in the control shaft or wheel attachment hub. The existing AD inspects the aft end of the shaft, not the control wheel. The FAA asks operators to visually inspect the wheel and to report the attachment method (tapered pin or bolt).

PARTS AND CONFIGURATION CHECKS

The Mooney parts catalog covers M20 series aircraft from 1968 models on. Parts marked "C" apply to serial number 680001C and on. Earlier serials need the 1965-1967 catalog. It lists electric and manual gear retraction, and hydraulic and electric flap controls, so confirm which your airplane has. Orders go through authorized Mooney facilities and need the model and serial number.

SPEEDBRAKE MODIFICATION

Precise Flight's 2000 Series electronic SpeedBrake (STC SA4342NM) covers M20 series Mooneys. Installation cuts openings in the top of each wing skin and adds doublers, with rivets removed and replaced. It also needs an asymmetric logic control, a circuit breaker and a cockpit switch. Check logbooks and FAA Form 337 paperwork if one is fitted.

SAFETY NOTES

- Control wheel separation can cause momentary loss of control until the other pilot regains it with the second wheel. This matters most on takeoff and landing.
- Inspect the control wheel and shaft for cracks before buying. Ask for the AD compliance history and whether the shaft was strengthened per SB M20-205B.
- If a speedbrake is fitted, check that the kit voltage matched the aircraft voltage and that the wing cutouts were reinforced with doublers.