



U.S. Department
of Transportation

Federal Aviation
Administration

Airworthiness Concern Sheet

Date: September 24, 2024

Reply to: Name: Jacob Fitch Title: Continued Operational Safety Program Manager Office: Operational Safety Branch Department: AIR-722 Street Address: 10101 Hillwood Parkway City, State, ZIP: Fort Worth, TX 76177 Telephone: (817) 222-4130 Email: Jacob.fitch@faa.gov	Make: Mooney International Corporation Model / Series: M20C, M20D, M20E, M20F, M20G Serial Numbers: N/A Reason for Airworthiness Concern: Fatigue cracks in control wheel shaft and/or attachment hub may lead to control wheel separation from the shaft.
Federal Aviation Administration (FAA) Description of Airworthiness Concern	
<p>Request for Information (For example: Proposed alternate inspection or repair procedures, cost impact, etc. Your comments or replies to the FAA need to be as specific as possible. Please provide specific examples to illustrate your comments or concerns.)</p> <p>We have received reports of control wheel separations on Mooney M20C aircraft due to fatigue cracks in the control shaft and/or control wheel attachment hub.</p> <p>This failure might result in momentary loss of control of the aircraft until the pilot or copilot is able to regain control with the second control wheel. This may reduce the capability of the airplane or the ability of the crew to cope with adverse operating conditions to the extent that there may be a significant reduction in safety margins, especially in certain phases of flight, such as takeoff and landing.</p> <p>Note that an Airworthiness Directive (AD) exists for these models to inspect the aft end of the control shaft every 500 hours Time-in-Service (TIS), unless the shaft has been strengthened per Mooney Service Bulletin M20-205B, in which case the shaft is inspected for cracks every 1000 hours TIS. However, the AD did not require inspection of the control wheel.</p> <p>We request that any operators of Mooney subject model aircraft perform a visual inspection of the control wheel and if signs of cracks are found to contact the FAA point of contact listed above with the aircraft model, aircraft serial number, part number control wheel, and hours TIS since installation. Also, please state the attachment method (tapered pin vs bolt) of the control wheel to the shaft.</p> <p>Sample photos of the control wheel and shaft are on the following page.</p>	
<p>This Airworthiness Concern Sheet (ACS) is intended as a means for FAA Aviation Safety Engineers to coordinate airworthiness concerns with aircraft owners/operators through associations and type clubs. At this time, the FAA has not made a determination on what type of corrective action (if any) should be taken. The resolution of this airworthiness concern could involve Airworthiness Directive (AD) action or a Special Airworthiness Information Bulletin (SAIB), or the FAA could determine that no action is needed at this time. The FAA's final determination will depend in part on the information received in response to this ACS.</p> <p>The FAA endorses dissemination of this technical information to all manufacturers and requests association and type club comments.</p>	

Attachments: <input type="checkbox"/> Service Difficulty Report <input type="checkbox"/> Accident/Incident Data System <input type="checkbox"/> Service Letter / Bulletin <input type="checkbox"/> Special Airworthiness Information Bulletin <input type="checkbox"/> Federal Aviation Administration or National Transportation Safety Board Safety Recommendation <input type="checkbox"/> Airworthiness Directive <input type="checkbox"/> Alternate Means of Compliance <input type="checkbox"/> Risk Analysis	Transmittal: <input checked="" type="checkbox"/> Federal Aviation Administration <input checked="" type="checkbox"/> Airplane Owners and Pilots Association <input checked="" type="checkbox"/> Experimental Aircraft Association <input checked="" type="checkbox"/> Type Club <input checked="" type="checkbox"/> Type Certificate Holder <input type="checkbox"/> Other:	Response Requested By: <input type="checkbox"/> Emergency (10 days) <input checked="" type="checkbox"/> Alert (30 days) <input type="checkbox"/> Information (90 days)
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