
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Mooney M20 Series Aeroplanes

AD/M20/53

O&N Bladder Fuel Cell Contamination

3/2005

Applicability: Mooney Airplane Company Models M20B, M20C, M20D, M20E, M20F, M20G, and M20J aircraft, all serial numbers, that are equipped with an O & N Bladder Fuel Cell installed per Supplemental Type Certificate (STC) SA2277CE or STC SA2350CE.

Requirement:

1. On both the left and right wing, inspect the drain valve to assure that it was inserted fully into the drain nipple, using procedure described in O & N Aircraft Modifications Inc. Mandatory Service Bulletin (MSB) No. ON-100, dated 1 February 1998.
2. Modify any drain valve found not inserted fully into the drain nipple, using procedure described in MSB ON-100.
3. Using procedure described in MSB ON-100, perform the following, on both the left and right wing:
 - (a) Install a foam wedge to reduce the amount of trapped fluids in the centre fuel cell;
 - (b) Install an anti-ice mast forward of the vent tubes to prevent icing of the fuel tank vents;
 - (c) Drill a vent hole to prevent icing of the engine's crankcase breathers; and
 - (d) Replace the flush style fuel caps and adapters with raised style caps and adapters.

Note 1: Instructions in paragraph (f) of the FAA AD 2004-25-04 Amendment 39-13891 is an alternative method of compliance for replacing the flush style fuel caps per requirement 3 (d).

Mooney M20 Series Aeroplanes

AD/M20/53 (continued)

- Compliance:
1. Unless accomplished earlier, within the next 12 calendar months, after the effective date of this AD.
 2. Before further flight, if the drain valve is found not inserted fully into the drain nipple as per inspection requirement 1, unless accomplished earlier.
 3. Unless accomplished earlier, within the next 12 calendar months, after the effective date of this AD.

This Airworthiness Directive becomes effective on 17 March 2005.

Background: There have been reports of rainwater entering the O&N bladder fuel cells installed in Mooney Aircraft. Water contamination of the fuel could result in rough engine operation or complete loss of engine power.

The actions specified in this AD are intended to assist in preventing water from entering the fuel bladders and thus address the identified unsafe condition associated with loss of engine power.



James Coyne
Delegate of the Civil Aviation Safety Authority

1 February 2005