

---

## AIRWORTHINESS DIRECTIVE

---

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/M20/46 and issues the following AD under subregulation 39.1 (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

<b>AD/M20/46 Amdt 1</b>	<b>Radiant Heat Shield, V-Band Clamp and Hydraulic Poly Line</b>	<b>2/2005 DM</b>
-----------------------------	--	----------------------

**Applicability:** Mooney model M20 M series aircraft, serial numbers 27-0001 through 27-0321.

- Requirement:**
1. Remove the existing radiant heat shield, part number (P/N) 600182-501 (A), and replace with the new radiant heat shield, P/N 600182-501 (B), and install the new heat shield deflector, P/N 600505-001 as per provisions of Mooney Airplane Company Service Bulletin (SB) M20-283A dated 30 March 2004.
  2. Remove the existing V-band clamp, P/N 55677-340M or 40D21162-340M, and install the new V-band clamp, P/N NH1009399-10 or 40D23255-340M as per provisions of the SB M20-283A.
  3. Modify the hydraulic brake fluid poly line as per provisions of the SB M20-283A.

*Note 1: If you have already incorporated all parts of SB M20-283 dated 03 January 2004, then you only have to replace the tailpipe V-band clamp with the new configuration V-band clamp, P/N NH109399-10 or 40D23255-340M.*

*Note 2: FAA Airworthiness Directive 2004-23-17 Amdt 39-13872 refers.*

**Compliance:** Unless previously accomplished, within 10 hours time in service after the effective date of this AD.

This Amendment becomes effective on 15 December 2004.

**Background:** In an incident, a coupling connecting the tail pipe to the turbocharger separated, allowing the hot exhaust gases to impinge on the engine firewall resulting in a fire in the cabin. CASA issued AD/M20/46 referring to FAA AD 91-03-15, requiring replacement of the tailpipe coupling with an improved coupling.

Recently, in a separate incident, a fire erupted in the lower left cockpit area on one of the aircraft incorporating FAA AD 91-03-15. The V-clamp that attaches the exhaust tailpipe to the turbocharger fell off, allowing the exhaust tailpipe to detach from the turbocharger. Hot exhaust gases from the turbocharger outlet blasted the lower left firewall.

## Mooney M20 Series Aeroplanes

AD/M20/46 Amdt 1 (continued)

The current issue of the AD requires replacement of the existing radiant heat shield with the new improved design heat shield, installation of a new heat shield deflector; replacement of the existing exhaust tailpipe-to-turbocharger V- band clamp with the new design V-band clamp; and modification of the hydraulic brake fluid poly line.

Detachment of V-clamp from the turbocharger and exposure of the firewall to hot exhaust gases may result in an in-flight fire, loss of control of the aircraft and fatalities.

Actions of this AD address the unsafe condition identified above.

The original issue of this Airworthiness Directive became effective on 18 April 1991.



James Coyne  
Delegate of the Civil Aviation Safety Authority

8 December 2004