
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/F100/55 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.

Fokker F100 (F28 Mk 100) Series Aeroplanes**AD/F100/55
Amdt 1****Main Landing Gear Main Fitting - 2****2/2005
DM**

Applicability: Model F.28 Mk 0100 and Mk 0070 aircraft, all serial numbers, if equipped with Messier-Dowty (formerly Dowty Aerospace Gloucester) MLG units.

- Requirement:**
1. Amend the Aircraft Flight Manual (AFM), Section Limitations, to prohibit the application of brakes during backward movement (push-back) of the aircraft. This may be accomplished by inserting a copy of this Directive into the AFM.
 2. Install a placard on the pedestal, next to the parking brake handle, having the following wording:

“Application of Brakes During Backward Movement is Prohibited”
 3. Inspect the MLG Main Fittings in accordance with the Accomplishment Instructions of Messier-Dowty (SB) F100-32-104, dated 22 August 2002, or later UK CAA approved revision.
 4. Whenever a hard or overweight landing is reported and subsequently confirmed by inspection in accordance with the Aircraft Maintenance Manual Chapter 05-51-01, Table A, inspect the MLG Main Fittings in accordance with the Accomplishment Instructions of Messier-Dowty SB F100-32-104 Revision 2, dated 30 October 2003, or later UK CAA approved revision.
 5. After each occasion when braking has been applied during aircraft backward movement in push-back or power-back operation, inspect the MLG Main Fittings in accordance with the Accomplishment Instructions of Messier-Dowty SB F100-32-104 Revision 2, or later UK CAA approved revision.
 6. When cracks are found, determine whether and for how many, flights may be continued before repair or replacement; in accordance with the crack size and location thresholds as listed in Fokker Services SB F100-32-137 Revision 2, dated 9 February 2004, or later CAA-NL approved revision.
 7. Irrespective of the results, report all inspection findings to Fokker Services.

Note: CAA-NL AD 2002-115/2 refers.

Fokker F100 (F28 Mk 100) Series Aeroplanes

AD/F100/55 Amdt 1 (continued)

- Compliance:
1. Before further flight after 4 September 2002.
 2. Within 14 days after 4 September 2002.
 3. Within 1,000 flight cycles or 6 months after 4 September 2002, whichever occurs first.
 4. Before further flight.
 5. - Before further flight, if the MLG has not been inspected before in accordance with Messier-Dowty SB F100-32-104, dated 22 August 2002, or later UK CAA approved revision; or,
 - Before further flight, if a previous MLG inspection revealed cracks and the aircraft is operating during the so-called "fly-on" period (refer to Requirement 6); or,
 - Within the next 50 flight cycles after 22 December 2004, if a previous inspection revealed cracks in the MLG that have subsequently been repaired in accordance with the requirements of Requirement 6; or.
 - Within the next 50 flight cycles after 22 December 2004, if a previous inspection revealed no cracks in the MLG.
 6. As specified in the Requirement document.
 7. Within 7 calendar days after each required inspection.

The compliance times for Requirements 1, 2, and 3 remain unchanged by this issue.

This Amendment becomes effective on 22 December 2004.

Background: The CAA-NL has received a report concerning a F100 aircraft with Messier-Dowty main landing gear where, upon braking during terminal push-back of the aircraft, the right hand MLG Main Fitting failed. Investigation revealed overload, initiated by a 4.5 mm fatigue crack originating from one of the MLG filler and bleeder ports, which are located on the aft side of the MLG.

Fokker F100 (F28 Mk 100) Series Aeroplanes

AD/F100/55 Amdt 1 (continued)

Amendment 1 is issued in response to a revision of the related CAA-NL AD, which introduces detailed compliance changes while allowing some flexibility in repair times; and adds Mk. 0070 aircraft to applicability.



David Villiers
Delegate of the Civil Aviation Safety Authority

14 December 2004