
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 39.1 (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.

Gates Learjet 35 and 36 Series Aeroplanes

AD/LEARJET 35/39 Forward Engine Beam Shear Web 5/2004

Applicability: Model 35, 35A, 36, and 36A aircraft, with serial numbers listed in Bombardier Service Bulletins 35/36-51-3, and 35/36-51-4 Revision 1 or Revision 2.

- Requirement:
1. Accomplish a detailed inspection (using a probe) and a general visual inspection of the shear webs of the forward engine beams (including modification of the drag angles) for cracking in accordance with the Accomplishment Instructions of Bombardier Service Bulletin (SB) 35/36-51-3, dated 1 February 2001.
 2. Following detailed probe inspection required by Requirement 1, accomplish the follow-on actions specified in following Requirements 2.a., 2.b., or 2.c., as applicable, in accordance with Accomplishment Instructions of SB 35/36-51-3.
 - a. If the resistance measured during the inspection is less than 0.110 milliohm, repeat the inspections required by Requirement 1.
 - b. If the resistance measured during the inspection is 0.110 milliohm or more, but less than 0.150 milliohm, repair and modify the forward engine beam shear web in accordance with the Accomplishment Instructions of SB 35/36-51-4 Revision 1, dated 2 August 2001, or Revision 2, dated 6 December 2001.
 - c. If the resistance measured during the inspection is 0.150 milliohm or more, repair and modify the forward engine beam shear web in accordance with the Accomplishment Instructions of SB 35/36-51-4 Revision 1 or Revision 2.
 3. Following the general visual inspection required by Requirement 1, accomplish all of the applicable follow-on actions as specified in the Accomplishment Instructions of SB 35/36-51-3; except as specified as follows:
 - a. If any crack opening is found that is more than 0.030-inch during the general inspection required by Requirement 1, accomplish the actions specified in paragraphs 2.C.(16)(a) and 2.C.(16)(b) of SB 35/36-51-3; repair per a method approved by the Manager, Wichita Aircraft Certification Office (ACO), FAA; and accomplish the terminating action specified in Requirement 4.

Gates Learjet 35 and 36 Series Aeroplanes

AD/LEARJET 35/39 (continued)

4. Modification of the shear webs by accomplishing all the actions specified in the Accomplishment Instructions of SB 35/36-51-4 Revision 1 or Revision 2; terminates the initial inspections required by Requirement 1 and the repetitive inspections required by Requirement 2.a.

Note 1: Where any service bulletin identified in this Directive specifies that the manufacturer may be contacted for disposition of certain repair conditions, repair per a method approved by the Manager, Wichita ACO, FAA.

Note 2: FAA AD 2004-03-08 Amdt 39-13452 refers.

- Compliance:
1. At the later of the following times:
 - a. Before the accumulation of 3,000 total flight hours; or,
 - b. Within 1,200 flight hours or 1 year after 13 May 2004, whichever occurs first.
 2.
 - a. At intervals not to exceed 1,200 flight hours.
 - b. Within the next 1,200 flight hours.
 - c. Before further flight.
 3. At the times specified in the Requirement document.
 - a. Before further flight.
 4. Terminates Requirements 1 and 2.a. inspections.

This Airworthiness Directive becomes effective on 13 May 2004.

Background: The manufacturer has received reports that the forward engine beam shear webs may develop cracks. The structural integrity of the engine beam shear web may be compromised depending upon the severity of the crack.



David Villiers
Delegate of the Civil Aviation Safety Authority

2 April 2004