
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/LEARJET 35/32 and issues the following 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.

Gates Learjet 35 and 36 Series Aeroplanes

**AD/LEARJET 35/32
Amdt 1**

Tip Tank Flapper Valves

11/2005

Applicability: Model 35 airplanes 35-002 through 35-676 inclusive.

Model 36 airplanes 36-002 through 36-063 inclusive.

- Requirement:
1. Perform an inspection to detect deterioration (such as cracks, cuts, breaks, splits, or warpage) of both flappers of the tip tank in each wing, in accordance with either Learjet Service Bulletin SB 35/36-28-10, dated 6 October 1995.
 - (a) If no deterioration of the flapper valve is detected, inspect the flapper valve to ensure proper positioning, inspect the condition of the screws that retain the flapper valve to the plate assembly to ensure that the flapper valve is secure, inspect to ensure that the flapper valve completely covers the opening of the tube and is seated against the tube, and inspect the flapper valve to verify that it moves freely; and accomplish the follow-on corrective actions, if any discrepancy is found in accordance with Learjet Service Bulletin SB 35/36-28-10.
 - (b) If any flapper valve is found to be deteriorated, replace it with a new flapper valve in accordance with Learjet Service Bulletin SB 35/36-28-10.
 2. Replace both flappers of the tip tank in each wing with new flappers in accordance with Learjet Service Bulletin SB 35/36-28-10.
 3. For aeroplanes on which the age and time-in-service of the flapper valve cannot be determined: replace both flappers of the tip tank in each wing in accordance with Learjet Service Bulletin SB 35/36-28-10.
 4. Accomplish the requirements of Requirement 1 of this Directive.
 5. Inspect the flappers and flapper assemblies of the tip tank in each wing to determine their part numbers (P/N). The raised letter and numbers "S-461" on the convex side of the flappers can identify these parts. Instead of inspecting the flappers and flapper assemblies, a review of aeroplane maintenance records is acceptable if the P/N of the flappers and flapper assemblies can be conclusively determined from that review.

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AD/LEARJET 35/32 Amdt 1 (continued)

- (a) If four flappers having P/N 2323006-802 and four flapper assemblies having P/N 2323006-801 are found installed, no further action is required by this Requirement, and the repetitive inspections required by Requirements 1 and 4 of this Directive can be stopped.
 - (b) If any flapper having P/N 2323006-5 or any flapper assembly having P/N 2323006-6 is found installed, replace the flapper valve with a new flapper valve or replace the flapper assembly with new or modified and reidentified assembly, as applicable. The replacement must be done in accordance with the Accomplishment Instructions of Bombardier Service Bulletin SB 35/36-28-10 Revision 2, dated 9 May 2001. Accomplishment of the replacement ends the repetitive inspections required Requirements 1 and 4 of this Directive.
6. Do not install a flapper having P/N 2323006-5 or a flapper assembly having P/N 2323006-6, on any aeroplane.

Note: FAA AD 2005-16-09 Amdt 39-14214 refers.

Compliance:

1. Remains unchanged as detailed in the original issue of this Directive as: Within 50 hours time-in-service after 29 February 1996, or prior to the accumulation of 600 hours time-in-service since installation of the flapper valve, whichever occurs later, thereafter repeat at intervals not to exceed 600 hours time-in-service.
 - (a) Before further flight.
 - (b) Before further flight.
2. Remains unchanged as detailed in the original issue of this Directive as: Except as provided in Requirement 3 of this Directive, at the later of the times specified below in (2)(a) and (2)(b) of this Directive:
 - (a) Within 5 years since date of installation of the flapper valve, or prior to the accumulation of 2,400 total hours time-in- service on the flapper valve, whichever occurs earlier.
 - (b) Within 50 hours time-in-service after 29 February 1996.
3. Remains unchanged as detailed in the original issue of this Directive as within 50 hours time-in-service after 29 February 1996.
4. Within 600 hours time-in-service following replacement of any flapper valve in accordance with the requirements of this Directive, and thereafter at intervals not to exceed 600 hours time-in-service.

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5. Within 600 hours time-in-service since last replacement of any flapper valve in accordance with the requirements of this Directive, or within 90 days after the effective date of this Directive, whichever occurs later.
 - (b) Within 600 hours time-in- service since last replacement of any flapper valve in accordance with the requirements of this Directive.
6. From the effective date of this Directive.

This Amendment becomes effective on 27 October 2005.

Background: The original issue of this Directive required repetitive inspections to detect deterioration of both flappers of the tip tank in each wing of the aeroplane, and various follow-on actions. This Directive also required replacing the flappers with new flappers, and repetitively performing certain other follow-on actions.

This amendment requires an inspection of the flappers and flapper assemblies of the tip tank in each wing or a review of the aeroplane maintenance records to determine the part numbers, and replacement of certain flappers or flapper assemblies if necessary, which ends the existing repetitive inspections. This Directive results from numerous continual inspections and the approval of a new, improved flapper and flapper assembly.

The actions detailed in this Directive are to prevent significant reduction in the lateral control of the aeroplane due to imbalance of the fuel loads in the wings of the aeroplane.

The original issue of this Directive became effective 29 February 1996.



James Coyne
Delegate of the Civil Aviation Safety Authority

15 September 2005