

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-0498; Directorate Identifier 2009-NM-065-AD; Amendment 39-15923; AD 2009-11-13]

RIN 2120-AA64

Airworthiness Directives; Learjet Model 45 Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Learjet Model 45 airplanes. For certain airplanes, this AD requires repetitive inspections for chafing and other damage of the case drain tube from the hydraulic pump case installed on the left-hand engine, and corrective action if necessary. This AD also requires, for all airplanes, repetitive inspections for discrepancies of the left engine's nacelle tubing, repetitive inspections for evidence of fluid leakage within the left engine accessory compartment, and corrective actions if necessary. This AD was prompted by reports of chafed hydraulic tubes in the left-hand engine. We are issuing this AD to detect and correct chafed hydraulic tubes in the left-hand engine and consequent hydraulic tube failure and uncontrolled loss of flammable fluid within the engine cowling, which could result in a fire in the engine nacelle and loss of control of the airplane.

DATES: This AD is effective June 17, 2009.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of June 17, 2009.

We must receive comments on this AD by August 3, 2009.

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, Kansas 67209-2942; telephone 316-946-2000; fax 316-946-2220; e-mail ac.ict@aero.bombardier.com; Internet <http://www.bombardier.com>.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: James P. Galstad, Aerospace Engineer, Systems and Propulsion Branch, ACE-116W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4135; fax (316) 946-4107.

SUPPLEMENTARY INFORMATION:

Discussion

We have received reports of chafing found on hydraulic tubing in the left-hand engine. Specifically, the chafing was found on a case drain tube from the hydraulic pump case installed on the left-hand engine, on the lower forward cowl latch structure on the inboard side of the engine. Chafing was also found on a hydraulic pressure tube, on the hydraulic case drain tube on the left-hand engine, and on the hydraulic supply tube on the oil reservoir on the left-hand engine. Chafed hydraulic tubes in the left-hand engine and consequent hydraulic tube failure and uncontrolled loss of flammable fluid within the engine cowling, if not corrected, could result in a fire in the engine nacelle and loss of control of the airplane.

Relevant Service Information

We reviewed the following service bulletins:

- Bombardier Alert Service Bulletin A45-29-15, dated December 26, 2006.
- Bombardier Alert Service Bulletin A40-29-03, dated December 26, 2006.

The service bulletins describe procedures for a detailed inspection for chafing and other damage of the case drain tube from the hydraulic pump case installed on the left-hand engine. The service bulletins also describe procedures for repositioning any tube that has damage within certain limits and replacing any tube that has damage that exceeds those limits.

We have reviewed the following temporary revisions (TRs):

- Learjet 40 Temporary Revision (TR) 71-1, dated April 28, 2009, to the Learjet 40 Maintenance Manual MM-105.
- Learjet 45 TR 71-1, dated April 28, 2009, to the Learjet 45 Maintenance Manual MM-104.

The TRs describe procedures for repetitive detailed inspections for discrepancies, including damage to the left engine's nacelle tubing and inadequate clearance between any unsupported section of the tube or other tubing and surrounding components. The TRs also describe procedures for adjusting the tubing and clamping to achieve minimum clearance and replacing any tube that has damage exceeding certain limits.

We have reviewed the engine-maintenance practices in the following maintenance manual documents:

- Learjet 45 Maintenance Manual MM-104, Revision 47, dated March 30, 2009, Powerplant-Maintenance Practices Section 71-00-00 and Engine-Maintenance Practices Section 71-00-01 (for M45 airplanes).
- Learjet 40 Maintenance Manual MM-105, Revision 15, dated March 30, 2009, Engine-Maintenance Practices Section 71-00-01 (for M40 airplanes).

The engine-maintenance practices sections in the maintenance manuals (MMs) describe procedures for a general visual inspection for evidence of engine oil, hydraulic fluid, or fuel leakage within the left engine accessory compartment. For airplanes on which there is evidence of leakage, the MMs describe procedures for removing each plumbing clamp within the area affected by the service bulletins and MM TRs identified in this AD, and cleaning and removing all evidence of fluid leakage. Tubing clamps that are associated with inadequate clearance are replaced with new clamps.

FAA's Determination and Requirements of This AD

We are issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design. This AD requires accomplishing the actions specified in the service information described previously, except as discussed below.

Differences Between the AD and the Service Information

Although the service bulletins provide for one-time inspections, this AD requires that those inspections be repeated, until a terminating action can be accomplished to adequately address the identified unsafe condition. This difference has been coordinated with the manufacturer.

Interim Action

We consider this AD interim action. The manufacturer is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

FAA's Justification and Determination of the Effective Date

Chafed hydraulic tubes in the left-hand engine and consequent hydraulic tube failure and uncontrolled loss of flammable fluid within the engine cowling could result in a fire in the engine nacelle and loss of control of the airplane. Because of our requirement to promote safe flight of civil aircraft and thus the critical need to ensure the proper functioning of the affected systems, and because of the short compliance time involved with this action, this AD must be issued immediately.

Because an unsafe condition exists that requires the immediate adoption of this AD, we find that notice and opportunity for prior public comment hereon are impracticable and that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments before it becomes effective. However, we invite you to send any written data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2009-0498; Directorate Identifier 2009-NM-065-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979), and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:



2009-11-13 Learjet: Amendment 39-15923. Docket No. FAA-2009-0498; Directorate Identifier 2009-NM-065-AD.

Effective Date

(a) This airworthiness directive (AD) is effective June 17, 2009.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Learjet Model 45 airplanes, certificated in any category, serial numbers 45-002 through 45-4000 inclusive.

Subject

(d) Air Transport Association (ATA) of America Code 29: Hydraulic power.

Unsafe Condition

(e) This AD results from reports of chafed hydraulic tubes in the left-hand engine. The Federal Aviation Administration is issuing this AD to detect and correct chafed hydraulic tubes in the left-hand engine and consequent hydraulic tube failure and uncontrolled loss of flammable fluid within the engine cowling, which could result in a fire in the engine nacelle and loss of control of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Repetitive Inspections: Case Drain Tube

(g) For airplanes having serial numbers identified in Table 1 of this AD: Within 50 flight hours after the effective date of this AD, do a detailed inspection for chafing and other damage of the case drain tube from the hydraulic pump case installed on the left-hand engine, in accordance with the applicable service bulletin identified in Table 1 of this AD. If any damage is found, before further flight, reposition or replace the tube, as applicable, in accordance with the Accomplishment Instructions of the service bulletin identified in Table 1 of this AD, as applicable. Repeat the inspection thereafter at intervals not to exceed 150 flight hours.

Table 1 – Service bulletins for inspections

For –	Use –
Serial numbers 45-005 through 45-313 inclusive (commonly referred to as “M45” airplanes)	Bombardier Alert Service Bulletin A45-29-15, dated December 26, 2006.
Serial numbers 45-2001 through 45-2063 inclusive (commonly referred to as “M40” airplanes)	Bombardier Alert Service Bulletin A40-29-03, dated December 26, 2006.

Note 1: For the purposes of this AD, a detailed inspection is: "An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required."

Repetitive Inspections: Nacelle Tubing

(h) Within 50 flight hours after the effective date of this AD, do a detailed inspection for discrepancies of the left engine's nacelle tubing, in accordance with the applicable temporary revision (TR) identified in Table 2 of this AD. Discrepancies include damaged tubing, and inadequate clearance between any unsupported section of the tube or other tubing and surrounding components. If any discrepancy is found, before further flight, adjust the tubing and clamping or replace the tubing, as applicable, in accordance with the applicable TR identified in Table 2 of this AD. Repeat the inspection thereafter at intervals not to exceed 150 flight hours.

Table 2 – TRs for inspections

For –	Use –
Serial numbers 45-2001 through 45-4000 inclusive (commonly referred to as “M40” airplanes)	Learjet 40 TR 71-1, dated April 28, 2009, to the Learjet 40 Maintenance Manual MM-105.
Serial numbers 45-002 through 45-2000 inclusive (commonly referred to as “M45” airplanes)	Learjet 45 TR 71-1, dated April 28, 2009, to the Learjet 45 Maintenance Manual MM-104.

Concurrent Inspections: Fluid Leakage

(i) Concurrently with each inspection required by paragraph (h) of this AD, do a detailed inspection for evidence of engine oil, hydraulic fluid, or fuel leakage within the left engine accessory compartment, in accordance with the applicable maintenance manual section identified in Table 3 of this AD. If there is evidence of leakage: Before further flight, remove each plumbing clamp within the inspection areas specified in paragraphs (g) and (h) of this AD, and clean and remove all evidence of fluid leakage.

Table 3 – Maintenance manual sections for inspections

For –	Use –
Serial numbers 45-002 through 45-2000 inclusive (commonly referred to as “M45” airplanes)	Section 71-00-00, “Powerplant – Maintenance Practices,” Revision 3, dated April 10, 1998, and Section 71-00-01, “Engine – Maintenance Practices,” Revision 44, dated April 28, 2008, to the Learjet 45 Maintenance Manual MM-104

Serial numbers 45-2001 through 45-4000 inclusive (commonly referred to as "M40" airplanes)	Section 71-00-01, "Engine – Maintenance Practices," Revision 8, dated December 25, 2006, to the Learjet 40 Maintenance Manual MM-105
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Additional Corrective Action for Fluid Leakage and Inadequate Clearance

(j) If evidence of fluid leakage was found during any inspection required by paragraph (i) of this AD, or, if inadequate clearance was found during any action required by paragraph (g) or (h) of this AD: Before further flight, replace each clamp associated with the fluid leakage or inadequate clearance with a new clamp, in accordance with the applicable maintenance manual identified in Table 3 of this AD.

Parts Installation

(k) As of the effective date of this AD, no person may re-install, on any airplane, any plumbing clamp that has been removed in accordance with the requirements of this AD.

Alternative Methods of Compliance (AMOCs)

(l)(1) The Manager, Wichita Aircraft Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to Attn: James P. Galstad, Aerospace Engineer, Systems and Propulsion Branch, ACE-116W, FAA, Wichita Aircraft Certification Office, 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209; telephone (316) 946-4135; fax (316) 946-4107.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

Material Incorporated by Reference

(m) You must use the service information contained in Table 4 of this AD to do the actions required by this AD, unless the AD specifies otherwise.

Table 4 – Material incorporated by reference

Document	Revision	Date
Bombardier Alert Service Bulletin A40-29-03	Original	December 26, 2006
Bombardier Alert Service Bulletin A45-29-15	Original	December 26, 2006
Learjet 40 Temporary Revision 71-1 to the Learjet Maintenance Manual MM-105	Original	April 28, 2009
Learjet 45 Temporary Revision 71-1 to the Learjet Maintenance Manual MM-104	Original	April 28, 2009
Section 71-00-00 of the Learjet 45 Maintenance Manual MM-104	Revision 47	March 30, 2009
Section 71-00-01 of the Learjet 40 Maintenance Manual MM-105	Revision 15	March 30, 2009

Learjet 40 Maintenance Manual MM-105, Revision 15, dated March 30, 2009, has the following effective pages:

List of Effective Pages:			
Page Title/ Description	Page Number(s)	Revision Number	Date Shown on Page(s)
Maintenance Manual Title Page	None shown	15	March 30, 2009
Maintenance Manual Revision Highlights	1-2	None Shown*	March 30, 2009
Record of Revisions	1	None Shown*	March 30, 2009
Chapter 71 List of Effective Pages	1	None Shown*	March 30, 2009
Section 71-00-01	201-223	None Shown*	December 25, 2006

(*Only the Maintenance Manual Title Page and Record of Revisions of Learjet 40 Maintenance Manual MM-104 have revision level information. These pages do not have this information.) Learjet 45 Maintenance Manual MM-104, Revision 47, dated March 30, 2009, has the following effective pages:

List of Effective Pages:			
Page Title/ Description	Page Number(s)	Revision Number	Date Shown on Page(s)
Maintenance Manual Title Page	None Shown	47	March 30, 2009
Maintenance Manual Revision Highlights	1-3	None Shown*	March 30, 2009
Record of Revisions	1-2	None Shown*	March 30, 2009
Chapter 71 List of Effective Pages	1	None Shown*	March 30, 2009
Section 71-00-00	201	None Shown*	April 10, 1998
Section 71-00-01	201-223	None Shown*	April 28, 2008

(*Only the Maintenance Manual Title Page and Record of Revisions of Learjet 45 Maintenance Manual MM-104 have revision level information. These pages do not have this information.)

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Learjet, Inc., One Learjet Way, Wichita, Kansas 67209-2942; telephone 316-946-2000; fax 316-946-2220; e-mail ac.ict@aero.bombardier.com; Internet <http://www.bombardier.com>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on May 20, 2009.

Stephen P. Boyd,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.

SUPERSEDED