

2009-25-03 ZLT Zeppelin Luftschifftechnik GmbH & Co KG: Amendment 39-16120; Docket No. FAA-2009-0868; Directorate Identifier 2009-CE- 047-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective January 8, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Model LZ N07-100 airships, serial numbers 002, 003, and 004, that are certificated in any category and are equipped with the following propeller gear boxes:

Part No.	Serial No.	Designation
07 722 0001– 200.	103, 106, 109, 112, 401, 401.	AFT propeller gear box.
07 722 0002– 200.	101, 104, 107, 110, 201.	LH propeller gear box.
07 722 0003– 200.	102, 105, 108, 111, 301, 302.	RH propeller gear box.

Subject

(d) Air Transport Association of America (ATA) Code 65: Tail Rotor Drive.

Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

The manufacturer has advised of receiving a report that during start up on ground a RH propeller gear box (PGB) on the airship has failed resulting in free rotation of the propeller. Investigation performed by the manufacturer revealed that the bevel gear in the propeller gearbox had cracked near the hub area.

During an extensive metallurgical investigation of the cracked bevel gear some different manufacturing deviations outside of the specifications were detected. Deviations in the heat treatment, wall thickness of the bevel gear near the hub area, and score marks caused during the production process have been established as causal factors for this failure.

For the reasons described above, this new AD mandates the replacement of the affected bevel gears, and limits, as a temporary measure, their service-life to 1 000 Flight Hours (for non- refurbished PGBs) and to 1 600 Flight Hours (for refurbished PGBs).

Actions and Compliance

(f) Unless already done, do the following actions in accordance with ZLT Zeppelin Luftschifftechnik GmbH & Co KG Service Bulletin S07 830 0001, Issue B-00, dated June 29, 2009:

(1) As of January 8, 2010 (the effective date of this AD), before the accumulation of the applicable total hours time-in-service (TIS) as defined in the appendix of ZLT Zeppelin Luftschifftechnik GmbH & Co KG Service Bulletin S07 830 0001, Issue B-00, dated June 29, 2009, replace the bevel gears of the propeller gearbox.

(2) As of January 8, 2010 (the effective date of this AD), for airships with a propeller gear box identified in paragraph (c)(1) of this AD that have exceeded the applicable total hours TIS as defined in the appendix of ZLT Zeppelin Luftschifftechnik GmbH & Co KG Service Bulletin S07 830 0001, Issue B-00, dated June 29, 2009, replace the bevel gears of the propeller gearbox within the next 30 days after January 8, 2010 (the effective date of this AD).

(3) As of January 8, 2010 (the effective date of this AD), airships with a propeller gear box S/N 102, 107, 108, 109, or 112, contact the manufacturer at ZLT Zeppelin Luftschifftechnik GmbH & Co KG, 88046 Friedrichsfafen, Allmannsweilerstrasse 132, Germany; telephone: + 49 (0) 7541-5900-546; fax: + 40 (0) 7541-5900-516, to obtain a repair scheme within the next 30 days after January 8, 2010 (the effective date of this AD). Incorporate the repair scheme before further flight after receipt.

(4) After doing the replacements required in paragraphs (f)(1), (f)(2), and (f)(3) of this AD, replace the bevel gears of the propeller gearbox thereafter at intervals not to exceed 1,600 hours TIS on the propeller gearbox.

Note 1: The time between overhaul for gear boxes specified in the airship maintenance manual remains unchanged.

Note 2: Airships with a propeller gear box S/N 102, 107, 108, 109, or 112 have exceeded their life limit and are not eligible for bevel gear replacement. See paragraph (f)(3) of this AD.

FAA AD Differences

Note 3: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, Standards 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: Karl Schletzbaum, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4146; fax: (816) 329-4090; email: karl.schletzbaum@faa.gov. Before using any approved AMOC on any airship to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(h) Refer to MCAI European Aviation Safety Agency (EASA) AD No. 2009-0182, dated August 20, 2009; and ZLT Zeppelin Luftschifftechnik GmbH & Co KG Service Bulletin S07 830 0001, Issue B-00, dated June 29, 2009, for related information.

Material Incorporated by Reference

(i) You must use ZLT Zeppelin Luftschifftechnik GmbH & Co KG Service Bulletin S07 830 0001, Issue B-00, dated June 29, 2009, to do the actions required by this AD, unless the AD specifies otherwise.

(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 ZLT Zeppelin Luftschifftechnik GmbH & Co KG, 88046 Friedrichsfafen, Allmannsweilerstrasse 132, Germany; telephone: + 49 (0) 7541-5900-546; fax: + 40 (0) 7541-5900-516; Internet: [http:// www.zeppelinflug.de/](http://www.zeppelinflug.de/).

(3) You may review copies of the service information incorporated by reference for this AD at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD 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.