


EASA	AIRWORTHINESS DIRECTIVE												
	<p>AD No.: 2009- 0182</p> <p>Date: 20 August 2009</p> <p>Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>												
This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].													
<p>Type Approval Holder's Name :</p> <p>ZLT Zeppelin Luftschifftechnik GmbH & CO KG</p>	<p>Type/Model designation(s) :</p> <p>LZ N07 Airships</p>												
TCDS Number : EASA AS.001													
Foreign AD : Not applicable													
Supersedure : None													
ATA 65	Transmission System – Bevel Gear of the Propeller Gear Box – Replacement												
Manufacturer(s):	ZLT Zeppelin Luftschifftechnik GmbH & CO KG												
Applicability:	<p>Model LZ N07-100 airships with serial numbers (s/n) 002, 003 and 004 and that are equipped with the following propeller gear boxes:</p> <table border="1"> <thead> <tr> <th>Propeller Gear Box</th><th>ZLT Zeppelin Part number</th><th>Serial Numbers</th></tr> </thead> <tbody> <tr> <td>AFT</td><td>07 722 0001-200</td><td>103, 106, 109, 112, 401, 402</td></tr> <tr> <td>LEFT (LH)</td><td>07 722 0002-200</td><td>101, 104, 107, 110, 201</td></tr> <tr> <td>RIGHT (RH)</td><td>07 722 0003-200</td><td>102, 105, 108, 111, 301, 302</td></tr> </tbody> </table>	Propeller Gear Box	ZLT Zeppelin Part number	Serial Numbers	AFT	07 722 0001-200	103, 106, 109, 112, 401, 402	LEFT (LH)	07 722 0002-200	101, 104, 107, 110, 201	RIGHT (RH)	07 722 0003-200	102, 105, 108, 111, 301, 302
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Reason:	<p>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.</p> <p>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.</p> <p>For the reasons described above, this new AD mandates the replacement of</p>												

	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).
Effective Date:	03 September 2009
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) For propeller gearboxes identified in the appendix of the ZLT Zeppelin Service Bulletin No.S07 830 0001 issue B-00 (thereafter the 'SB'): before the accumulation of the applicable Total Flight Hours (FH) as defined in the appendix of the SB, replace the bevel gears of the propeller gear-boxes in accordance with the accomplishment instructions of the SB.</p> <p>(2) For propeller gearboxes identified in the appendix of the SB which, on the effective date of this AD, have already exceeded the applicable Total FH as defined in the appendix of the SB: within 10 FH or 10 days, whichever occurs first, after the effective date of this AD, replace the bevel gears of the propeller gearboxes in accordance with the accomplishment instructions of the SB.</p> <p>(3) After accomplishment of paragraph (1) or (2) of this AD, and until further notice, replace at intervals not to exceed 1 600 FH the bevel gear of the propeller gearbox.</p> <p>Note: The time between overhaul (TBO) for gear boxes remains unchanged.</p>
Ref. Publications:	<p>ZLT Zeppelin Luftschifftechnik Service Bulletin No.S07 830 0001 issue B-00, dated 29 June 2009;</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p> <p>Airship Maintenance Manual Chapter 72-20 and 72-60.</p>
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 22 July 2009 as PAD 09-091 for consultation until 12 August 2009. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu 4. For any question concerning the technical content of the requirements in this AD, please contact: <p style="text-align: center;">ZLT Zeppelin Luftschifftechnik GmbH & CO KG 88046 Friedrichsfafen Allmannsweilerstrasse 132 G E R M A N Y</p> <p>Telephone: + 49 (0) 7541-5900-546 Facsimile: + 49 (0) 7541-5900-516 E-mail: h.vanharten@zeppelin-nt.de</p>