



Airworthiness Directive

AD No.: 2020-0101

Issued: 05 May 2020

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 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 AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

ATR-GIE AVIONS de TRANSPORT RÉGIONAL

Type/Model designation(s):

ATR 72 aeroplanes

Effective Date: 19 May 2020

TCDS Number(s): EASA.A.084

Foreign AD: Not applicable

Supersedure: None

ATA 32 – Landing Gear – Main Landing Gear Hinge Pins – Replacement

Manufacturer(s):

ATR-GIE Avions de Transport Régional, formerly EADS ATR - Alenia, Aerospatiale Matra ATR - ALENIA, Aerospatiale - Alenia, Aerospatiale - Aeritalia

Applicability:

ATR 72-101, ATR 72-102, ATR 72-201, ATR 72-202, ATR 72-211, ATR 72-212 and ATR 72-212A aeroplanes, all manufacturer serial numbers (MSN).

Definitions:

For the purpose of this AD, the following definitions apply:

The SB: SAFRAN Landing System (SLS) Service Bulletin (SB) 631-32-269 Revision 1.

Affected parts: Main landing gear (MLG) hinge pins, having Part Number (P/N) D61000 or P/N D60999, and a serial number (s/n) as listed in the Tables of the SB.

Serviceable part: Any MLG hinge pin that is not an affected part.

Groups: Group 1 aeroplanes are those that have an affected part installed. Group 2 aeroplanes are those that do not have an affected part installed.



Reason:

Prompted by cases of rupture of MLG hinge pins, DGAC France issued AD 96-131-064 (B) for ATR 42 aeroplanes and AD 96-096-029 (B) for ATR 72 aeroplanes. Later, EASA issued AD 2014-0074 and AD 2016-0135 to address different root causes and associated populations of affected MLG hinge pins. The results of investigations revealed that the affected pins had been subjected to a non-detected thermal abuse during the production grinding process. Analysis also showed that other MLG hinge pin P/N could be affected by the same production issue.

This condition, if not corrected, could lead to structural failure of the MLG and consequent collapse, possibly resulting in damage to the aeroplane and injury to the occupants.

To address this potential unsafe condition, all above referenced DGAC France and EASA ADs were issued to require inspection and, depending on findings, replacement of affected pins.

Since these ADs were issued, one case of a pin P/N D61000 found cracked and another case of a pin P/N D60999 found thermally abused without crack were reported on in-service ATR 72 aeroplanes. These affected parts were manufactured at the beginning of 2009, when the latest process evolution was put in place, to avoid releasing of thermally abused pins. Consequently, an additional s/n batch of MLG pins (P/N D61000 and P/N D60999), installed only on ATR 72 aeroplanes, has been identified by SLS, for which it is suspected that the latest process evolution was not adequately applied.

Prompted by these findings, SLS issued the SB, providing instructions to identify and, depending on findings, replace the affected pins.

For the reasons described above, this AD requires replacement of the affected parts with serviceable parts.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Replacement:

- (1) For Group 1 aeroplanes: Within 12 months after the effective date of this AD, replace each affected part with a serviceable part in accordance with the instructions of the SB.

Alternative Methods:

- (2) Replacement on an aeroplane of an MLG equipped with an affected part with an MLG having serviceable part installed is an alternative acceptable method to comply with the requirement of paragraph (1) of this AD for that aeroplane.

Parts Installation:

- (3) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, do not install an affected part on any aeroplane.
- (4) From the effective date of this AD, it is allowed to install an MLG on any aeroplane, provided it is determined, prior to installation, that no affected part is installed on that MLG.



Ref. Publications:

SLS SB 631-32-269 Revision 1 dated 20 December 2019.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 03 April 2020 as PAD 20-061 for consultation until 01 May 2020. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#).
5. For any question concerning the technical content of the requirements in this AD, please contact: ATR - GIE Avions de Transport Régional, Continued Airworthiness Service, Telephone: +33 (0)5 62 21 62 21, Fax: +33 (0) 5 62 21 67 18; E-mail: continued.airworthiness@atr-aircraft.com.

