



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 18-009

Issued: 22 January 2018

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A330 and A340 aeroplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Numbers: EASA.A.004 and EASA.A.015

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2016-0107 dated 07 June 2016.

ATA 29 – Hydraulic Power – Hydraulic Reservoir Pressure Relief Valve – Inspection / Replacement

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342 and A330-343 aeroplanes, all manufacturer serial numbers (MSN), and

Airbus A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642 and A340-643 aeroplanes, all MSN.

Definitions:

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

The AOT: Airbus Alert Operators Transmission (AOT) A29L005-16.

The Applicable Inspection SB: Airbus Service Bulletin (SB) A330-29-3134 or SB A330-29-4102, as applicable.



The Applicable Modification SB: Airbus SBs, as listed in Table 1 of this AD, as applicable.

Applicable Vendor SB: Safran Aero Boosters Vendor Service Bulletin (VSB) 42-29-005 for all A330 and for A340-200 and A340-300 aeroplanes, or VSB 42-29-006 for A340-500 and A340-600 aeroplanes, as applicable.

Affected HR: Hydraulic Reservoirs (HR), having Part Number (P/N) 42F1005, P/N 42F1203, P/N 42F1304, P/N 42F1412, P/N 42F1512, or P/N 42F1607, as applicable, depending on aeroplane model/system.

Affected Part: HR Pressure Relief Valve (PRV) with P/N 42F0026 with serial number as listed in the applicable VSB.

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. An A330 aeroplane on which Airbus modification (mod) 206863, mod 206864 and mod 206965 have been embodied in production is a Group 2 aeroplane, provided the aeroplane remains in that configuration.

Reason:

Some events were reported of depressurisation of hydraulic reservoirs, due to air leakage from the HR PRV. The results of the investigations revealed that the air leakage was due to the extrusion of the O-ring seal from the HR PRV. This may have happened during HR maintenance, testing or during flight, if HR over-filling was performed, as a result of which hydraulic fluid could pass through the PRV, causing PRV seal to migrate from its nominal position, leading to loss of HR pressurisation.

This condition, if not detected and corrected, could lead to the loss of one or more hydraulic systems, possibly resulting in loss of control of the aeroplane.

To address this potential unsafe condition, Airbus issued the AOT to provide instructions to inspect the HR fluid level of each hydraulic circuit and to provide instructions for certain actions when servicing with hydraulic fluid is accomplished on an HR. Consequently, EASA published AD 2016-0107 to require accomplishment of these actions for aeroplanes in service.

Since that AD was issued, it was determined that the detected air leakage was due to the extrusion of the O-ring seal from a specific batch of HR PRV. Airbus published the applicable Inspection SB to inspect the HR of each hydraulic circuit and to provide instructions to identify the affected parts, and the Modification SB to provide instructions for replacement of each affected part fitted on an affected HR.

For the reasons described above, this AD retains the requirements of EASA AD 2016-0107 which is superseded, and requires the replacement of the affected parts.

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

Required as indicated, unless accomplished previously:



Table 1 – Applicable Modification SB

Aeroplanes	Hydraulic Circuit	SB	Affected HR P/N
A330 (all)	Green (G)	A330-29-3133	42F1005
	Blue (B)	A330-29-3131	42F1203
	Yellow (Y)	A330-29-3132	42F1304
A340-200/-300	Green (G)	A340-29-4101	42F1005
	Blue (B)	A340-29-4099	42F1203
	Yellow (Y)	A340-29-4100	42F1304
A340-500/-600	All	A340-29-5026	42F1412 (G) 42F1512 (B) 42F1607 (Y)

Restatement of the requirements of EASA AD 2016-0107:**Inspection:**

- (1) For Group 1 aeroplanes: Within the compliance time defined in Table 2 of this AD, as applicable, and, thereafter, at intervals not exceeding 1 600 flight hours (FH), inspect each affected HR to determine the fluid level of each hydraulic circuit in accordance with the instructions of paragraph 4.2.2.1 of the AOT.

Table 2 – Threshold Inspection

Compliance Time (whichever occurs later, A or B)	
A	Before exceeding 1 600 FH since first flight of the aeroplane
B	Within 1 000 FH or 3 months, whichever occurs first after 21 June 2016 [the effective date of EASA AD 2016-0107]

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any discrepancy is identified, as specified in the AOT, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the AOT.

Terminating Action:

- (3) Accomplishment of corrective action(s) on an aeroplane, as required by paragraph (2) of this AD, does not constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.

Related Action:

- (4) For Group 1 aeroplanes: From 21 June 2016 [the effective date of EASA AD 2016-0107], during each servicing of HR with hydraulic fluid, accomplish all the instructions of paragraph 4.2.2.2 of the AOT.



New requirements of this AD:**Replacement:**

- (5) For Group 1 aeroplanes: Within the compliance times specified in Table 3 of this AD, as applicable, replace each affected part (see Note 1 of this AD) in accordance with the instructions of applicable Modification SB.

Note 1: The Inspection SB provides instructions to identify an affected part, subject to replacement.

Table 3 – Affected Part Replacement / Affected HR P/N Change

Aeroplanes	Affected HR P/N	Compliance Time (after the effective date of this AD)	Re-identified HR P/N
A330 (all)	42F1005	Within 4 months	42F1008
	42F1203	Within 28 months	42F1205
	42F1304		42F1307
A340-200/-300	42F1005	Within 4 months	42F1008
	42F1203	Within 28 months	42F1205
	42F1304		42F1307
A340-500/-600	42F1412 (G)	Within 4 months	42F1416
	42F1512 (B)		42F1516
	42F1607 (Y)		42F1609

Re-Identification:

- (6) Concurrent with the affected part replacement as required by paragraph (5) of this AD, re-identify the P/N of the affected HR, as specified in Table 3 of this AD, in accordance with the instructions of the applicable Modification SB.

Note 2: The applicable Modification SB also provides instructions for re-identifying the P/N of HR PRV that are not affected, as well as the P/N of the HRs that are not equipped with an affected part.

Terminating Action:

- (7) Replacement of all affected parts on an aeroplane, as required by paragraph (5) of this AD, constitutes terminating action for the actions required by paragraphs (1) and (4) of this AD for that aeroplane.

Part installation:

- (8) Do not install an affected part on any aeroplane, as required by paragraph (8.1) or (8.2) of this AD, as applicable.

(8.1) For Group 1 aeroplanes: After replacement of all affected parts as required by paragraph (5) of this AD.

(8.2) For Group 2 aeroplanes: From the effective date of this AD.



Ref. Publications:

Airbus AOT A29L005-16 original issue dated 28 January 2016, Revision 01 dated 28 June 2016.

Airbus SB A330-29-3134 original issue dated 16 August 2017.

Airbus SB A330-29-3131 original issue dated 11 August 2017.

Airbus SB A330-29-3132 original issue dated 11 August 2017.

Airbus SB A330-29-3133 original issue dated 11 August 2017.

Airbus SB A340-29-4102 original issue dated 16 August 2017.

Airbus SB A340-29-4099 original issue dated 11 August 2017.

Airbus SB A340-29-4100 original issue dated 11 August 2017.

Airbus SB A340-29-4101 original issue dated 11 August 2017.

Airbus SB A340-29-5026 original issue dated 11 August 2017.

Safran Aero Boosters VSB 42-29-005 original issue dated 21 August 2017, or Revision 01 dated 26 September 2017.

Safran Aero Boosters VSB 42-29-006 original issue dated 09 August 2017, or Revision 01 dated 27 September 2017.

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

Remarks:

1. This Proposed AD will be closed for consultation on 19 February 2018.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – EIAL, E-mail: airworthiness.A330-A340@airbus.com.

