



### 適航指令發布單

## Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2018-03-007	發布日期 Date issued	2018/3/28
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	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.		
主旨摘要	Hydraulic Power - Hydraulic Reservoir Pressure Relief Valve - Inspection / Replacement		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <input type="checkbox"/> FAA <input type="checkbox"/> Germany LBA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> CAA-NL <input type="checkbox"/> Brazil <input type="checkbox"/> UK CAA <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> Japan CAB <input type="checkbox"/> DGAC <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國 AD 編號 Original AD number	2018-0064	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 29. This AD supersedes EASA AD 2016-0107(CAA-2016-06-006) dated 07 June 2016. Ref. Publications: Airbus AOT A29L005-16 original issue dated 28 January 2016, or Revision 01 dated 28 June 2016. and Airbus SB A330-29-3134 original issue dated 16 August 2017. and Airbus SB A330-29-3131 original issue dated 11 August 2017. and Airbus SB A330-29-3132 original issue dated 11 August 2017. and Airbus SB A330-29-3133 original issue dated 11 August 2017. and Airbus SB A340-29-4102 original issue dated 16 August 2017. and Airbus SB A340-29-4099 original issue dated 11 August 2017. and Airbus SB A340-29-4100 original issue dated 11 August 2017. and Airbus SB A340-29-4101 original issue dated 11 August 2017. and Airbus SB A340-29-5026 original issue dated 11 August 2017. and Safran Aero Boosters VSB 42-29-005 original issue dated 21 August 2017, or Revision 01 dated 26 September 2017. and Safran Aero Boosters VSB 42-29-006 original issue dated 09 August 2017, or Revision 01 dated 27 September 2017.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> Note：	1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel:(02)2349-6331~3, Fax:(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a>		



## Airworthiness Directive

**AD No.:** 2018-0064

**Issued:** 23 March 2018

Note: This Airworthiness Directive (AD) 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.

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 (EC) 216/2008, Article 14(4) exemption].

### Design Approval Holder's Name:

AIRBUS

### Type/Model designation(s):

A330 and A340 aeroplanes

**Effective Date:** 06 April 2018

**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 A340-29-4102, as applicable.

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



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)

**Applicable VSB:** 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:

**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

<b>Compliance Time</b> (whichever occurs later, <b>A</b> or <b>B</b> )	
<b>A</b>	Before exceeding 1 600 FH since first flight of the aeroplane
<b>B</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 applicable Inspection SB provides instructions to identify an affected part, subject to replacement.

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

<b>Aeroplanes</b>	<b>Affected HR P/N</b>	<b>Compliance Time</b> (after the effective date of this AD)	<b>Re-identified HR P/N</b>
A330 (all models)	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, or 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. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 22 January 2018 as PAD 18-009 for consultation until 19 February 2018. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this AD.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EIAL, E-mail: [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com).

