Airworthiness Directive

AD No.: 2016-0014

Issued: 14 January 2016

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:
EADS-CASA

Type/Model designation(s):
CN-235 and C-295 aeroplanes

Effective Date: 28 January 2016

TCDS Number(s): EASA.A.186

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2013-0186 dated 16 August 2013.

ATA 28 – Fuel – Booster Pump – Inspection / Replacement

Manufacturer(s):
EADS-CASA, formerly Construcciones Aeronáuticas S.A.(CASA)

Applicability:
CN-235, CN-235-100, CN-235-200, CN-235-300 and C-295 aeroplanes, all manufacturer serial numbers (MSN).

Reason:
An occurrence with a CN-235 aeroplane was reported, involving an in-flight problem with the fuel transfer system. The results of the subsequent investigation revealed damage on the fuel booster pump electrical feeding cable and some burn marks on the pump body and plate (fairing) at the external side of the fuel tank; confirmed electrical arcing between the wire and pump body; and revealed fuel leakage onto the affected wire.

This condition, if not detected and corrected, could create an ignition source in the fuel tank vapour space, possibly resulting in a fuel tank explosion and loss of the aeroplane.

To address this potential unsafe condition, EADS CASA (Airbus Military) issued All Operators Letter (AOL) 235-025 and AOL 295-025, providing inspection instructions for the affected fuel booster pumps, Part Number (P/N) 1C12-34 and P/N 1C12-46.

Consequently, EASA issued AD 2013-0186 to require a one-time inspection of the affected fuel booster pumps to detect damage and, depending on findings, replacement of the fuel booster pump. That AD also required reporting of all findings to EADS CASA for evaluation.

Since that AD was issued, Airbus Defence and Space (D&S) developed modification of the fuel boost pump electrical installation, available for in-service application through Airbus D&S Service Bulletin (SB) 235-28-0023. That modification involves improved protection of the output of affected fuel pump harness avoiding undesired electrical contacts and preventing potential arcing between the affected harness and metallic parts of the fuel boost cover.

For the reasons described above this AD partially retains the reqirements of EASA AD 2013-0186, which is superseded, and requires modification of the fuel pump electrical installation.

Required Action(s) and Compliance Time(s):
Required as indicated, unless accomplished previously:

(1) Within the compliance time specified in Table 1 of this AD, as applicable, accomplish a visual inspection of the electrical feeding cables of each fuel booster pump P/N 1C12-34 and P/N 1C12-46 in accordance with the instructions of paragraph 3.1 of EADS CASA AOL 235-025 or AOL 295-025, as applicable to aeroplane model.

Table 1 – Fuel Booster Pump Inspection

Flight hours (FH) accumulated on 23 August 2013 [the effective date of EASA AD 2013-0186], since last fuel booster pump replacement	**Compliance Time**
300 FH or more	Within 5 flight cycles (FC) after 23 August 2013 [the effective date of EASA AD 2013-0186]
Less than 300 FH	Before exceeding 300 FH since last fuel booster pump replacement, or within 5 FC after 23 August 2013 [the effective date of EASA AD 2013-0186], whichever occurs later

(2) If, during the inspection as required by paragraph (1) of this AD, any damage is detected, before next flight, or within 10 days, provided that during this 10-day period, the aeroplane is operated under the conditions specified in paragraph 3.1 of EADS CASA AOL 235-025 or AOL 295 025, as applicable, replace the affected fuel booster pump with a serviceable unit in accordance with the instructions of paragraph 3.1 of EADS CASA AOL 235-025 or AOL 295-025, as applicable to aeroplane model.

(3) Within 12 months after the effective date of this AD, modify the aeroplane in accordance with the instructions of Airbus D&S SB 235-28-0023.

(4) After modification of an aeroplane in accordance with the instructions of Airbus D&S SB 235-28-0023, the requirements of paragraphs (1) and (2) of this AD no longer apply to that aeroplane.

Ref. Publications:
EADS CASA (Airbus Military) AOL 235-025, original issue dated 29 July 2013.

EADS CASA (Airbus Military) AOL 295-025, Revision 01 dated 01 August 2013.

Airbus D&S SB 235-28-0023 original issue, dated 14 March 2014.

The use of later approved revisions of these 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 30 November 2015 as PAD 15-148 for consultation until 28 December 2015. No comments were received during the consultation period.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact: EADS CASA (Airbus D&S), Services / Engineering Support,
Fax: +34 91 585 3127, E-mail: MTA.TechnicalService@airbus.com.