



## Airworthiness Directive

**AD No.:** 2016-0211

**Issued:** 24 October 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:

BAE SYSTEMS (OPERATIONS) Ltd

### Type/Model designation(s):

BAe ATP

**Effective Date:** 07 November 2016

**TCDS Number(s):** EASA.A.192

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes CAA UK AD 002-02-2003 issued in February 2003.

## ATA 28 – Fuel – Cross Feed Fuel Pipe – Replacement

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### Manufacturer(s):

British Aerospace plc, British Aerospace (Commercial Aircraft) Ltd

### Applicability:

ATP aeroplanes, all serial numbers.

### Reason:

A cross feed fuel pipe Part Number (P/N) JD280J0089-000 was found cracked and leaking where a drain stub pipe is welded to the cross feed pipe. Subsequent examination identified that the cracks were caused by fatigue and had originated from the heat-affected zone of the weld. Although the reason for the fatigue could not be identified, review of the pipe design showed that the drawing does not instruct post weld heat treatment which would have reduced the residual stresses induced by welding. Pipe P/N JD280J0089-000 is the left hand (LH) pipe assembly, the right hand (RH) assembly, P/N JD280J0088-000 is identical in design and therefore also affected. The affected pipes are located in dry bay zones (511 and 611) which also contain electrical equipment.

The previous (original) design of the cross feed fuel pipe had a drain pipe attached to the drain stub pipe which terminated in a location that was more accessible for draining the fuel system.



Prompted by a fire that was attributed to chafing damage between electrical cables and the cross feed drain pipe, BAE Systems (Operations) Ltd had published Service Bulletin (SB) ATP-28-022 and the Civil Aviation Authority (CAA) UK had issued AD 002-02-2003 to remove the drain pipe and install the drain valve at the end of the drain stub pipe.

The recently cracked cross feed fuel pipe had accumulated 3 893 flight cycles since embodying BAE Systems (Operations) Ltd SB ATP-28-022 (CAA UK AD 002-02-2003).

This condition, if not corrected, could lead to a fuel leakage which, if near an ignition source from the electrical equipment, could result in a fire or a fuel vapour explosion with consequent loss of the aeroplane.

To address this unsafe condition, BAE Systems (Operations) Ltd issued SB ATP-28-025 to introduce a new design cross feed fuel pipe which significantly reduces the stress where the drain stub pipe is attached, thereby minimising the probability of cracking and fuel leakage in this location.

For the reason described above, this AD, which supersedes CAA UK AD 002-02-2003, requires replacement of cross feed fuel pipe assemblies with improved design units.

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

Required as indicated, unless accomplished previously:

Note: For the purpose of this AD, an 'affected cross feed fuel pipe assembly' is identified by P/N JD280J0088-000 (RH) or P/N JD280J0089-000 (LH).

- (1) Within 2 months after the effective date of this AD, replace each affected cross feed fuel pipe assembly with a serviceable assembly P/N JD280J0152-000 (LH) or P/N JD280J0153-000 (RH), as applicable, in accordance with the instructions of BAE Systems (Operations) Ltd SB ATP-28-025.
- (2) Before next flight after modification of an aeroplane as required by paragraph (1) of this AD, accomplish an operational test of the refuel/defuel system and inspect the pipe assemblies to detect fuel leaks on that aeroplane in accordance with the instructions of BAE Systems (Operations) Ltd SB ATP-28-025.
- (3) If, during the test or inspection as required by paragraph (2) of this AD, discrepancies are detected, before next flight, contact BAE Systems (Operations) Ltd for approved instructions and accomplish those instructions accordingly.
- (4) Within 30 days after accomplishment of the actions as required by paragraph (2) of this AD, report the test/inspection results to BAE Systems (Operations) Ltd in accordance with the instructions of BAE Systems (Operations) Ltd SB ATP-28-025.
- (5) Do not install on any aeroplane an affected cross feed fuel pipe assembly (see Note of this AD), as required by paragraph (5.1) or (5.2) of this AD, as applicable.



- (5.1) For an aeroplane that, on the effective date of this AD, has an affected cross feed fuel pipe assembly (see Note of this AD) installed: After modification of that aeroplane as required by paragraph (1) of this AD.
- (5.2) For an aeroplane that, on the effective date of this AD, does not have an affected cross feed fuel pipe assembly (see Note of this AD) installed: From the effective date of this AD.

**Ref. Publications:**

BAE Systems (Operations) Ltd SB ATP-28-025 original issue dated 17 December 2015 or Revision 01 dated 10 February 2016.

The use of later approved revisions of this 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 07 October 2016 as PAD 16-144 for consultation until 21 October 2016. 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](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact: BAE Systems (Operations) Ltd, Business Support Team - Technical Publications, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom, Telephone +44 1292 675207, Facsimile +44 1292 675704, E-mail: [RAPublications@baesystems.com](mailto:RAPublications@baesystems.com).

