



## Airworthiness Directive

**AD No.:** 2017-0178

**Issued:** 15 September 2017

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:

SHORT BROTHERS, PLC

### Type/Model designation(s):

V2500 NACELLE – RTI Monolithic Fan Cowl Door

**Effective Date:** 29 September 2017

**STC Number(s):** EASA Supplemental Type Certificate (STC) 10029547

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 71 – Power Plant – Monolithic Fan Cowl Doors – Modification

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#### Manufacturer(s):

Airbus (formerly Airbus Industrie)

#### Applicability:

Airbus A319-131, A319-132, A319-133, A320-231, A320-232, A320-233, A321-131, A321-231 and A321-232 aeroplanes, all manufacturer serial numbers, if modified by EASA STC 10029547.

#### Reason:

Fan Cowl Door (FCD) losses during take-off were reported on Airbus A320 family aeroplanes equipped with IAE V2500 engines. Investigations confirmed that in all cases, the FCD were opened prior to the flight and were not correctly re-secured. During the pre-flight inspection, it was not detected that the FCD were not properly latched.

This condition, if not corrected, could lead to in-flight loss of an FCD, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

EASA issued AD 2016-0053, requiring modification of the FCD installed on affected aeroplanes, and installation of a placard in the cockpit, in accordance with the instructions of Airbus Service Bulletin (SB) A320-71-1069 (which in turns refers to Goodrich SB V2500-NAC-71-0331 for FCD modification and re-identification).



The monolithic FCDs, installed on aeroplanes embodying Short Brothers STC 10029547, are also affected by this potential unsafe condition. Consequently, the STC Holder, trading as Bombardier Short Brothers, developed a modification, similar to the one designed by Airbus, and issued SB V25MFC-71-1003. The modification consists of a new FCD front latch and keeper assembly, having a specific key necessary to un-latch the FCD. This key cannot be removed unless the FCD front latch is safely closed. The key, after removal, must be stowed in the flight deck at a specific location, as instructed in the applicable Aircraft Maintenance Manual. The applicable Flight Crew Operating Manual has been amended accordingly. After modification, the FCD is identified with a different Part Number (P/N).

Mixed FCD installation can be found on aeroplanes embodying STC 10029547 (i.e., Monolithic FCD and standard production non-Monolithic FCD). For standard production non-Monolithic FCD, Bombardier Short Brothers SB V25MFC-71-1003 specifies to accomplish the instructions of Goodrich SB V2500-NAC-71-0331, as applicable.

For the reasons described above, this AD requires modification and re-identification of FCD, and installation of a placard in the cockpit.

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

Required as indicated, unless accomplished previously:

#### Modification:

- (1) Within 18 months after the effective date of this AD, accomplish concurrently the actions as required by paragraphs (1.1), (1.2) and (1.3) of this AD, in accordance with the instructions of Bombardier Short Brothers SB V25MFC-71-1003.
  - (1.1) Modify each left hand (LH) and right hand (RH) FCD having a P/N listed as 'old' in Table 1 or Table 2 of this AD.
  - (1.2) Re-identify each modified FCD with the P/N listed as 'new' in Table 1 or Table 2 of this AD, as applicable.
  - (1.3) Install a placard on the box located at the bottom of the 120 VU panel, or at the bottom of the coat stowage, as applicable to aeroplane configuration.

Table 1 – Monolithic FCD P/N Change

FCD Position	Old P/N	New P/N
LH	745B4000-501	745B4000-507
	745B4000-503	745B4000-509
	745B4000-505	745B4000-511
RH	745B4000-502	745B4000-508
	745B4000-504	745B4000-510
	745B4000-506	745B4000-512



Table 2 – Standard Production (non-Monolithic) FCD P/N Change

FCD Position	Old P/N	New P/N
LH	740-4000-501	740-4000-9501
	740-4000-503	740-4000-9503
	745-4000-501	745-4000-513
	745-4000-503	745-4000-515
	745-4000-505	745-4000-517
RH	740-4000-502	740-4000-9502
	740-4000-504	740-4000-9504
	740-4000-506	740-4000-9506
	740-4000-508	740-4000-9508
	745-4000-502	745-4000-9502
	745-4000-504	745-4000-9504
	745-4000-506	745-4000-9506
	745-4000-508	745-4000-514
	745-4000-510	745-4000-516
	745-4000-512	745-4000-518

**Credit:**

- (2) Replacing the FCDs, having P/N listed as old in Table 1 or Table 2 of this AD, with the FCDs having the corresponding P/N listed as new in Table 1 or Table 2 of this AD, is equal to compliance with paragraph (1.1) and (1.2) of this AD.
- (3) An aeroplane on which Airbus modification 157718 has been embodied in production is compliant with the requirements of paragraph (1.3) of this AD.
- (4) Compliance with the requirements of this AD is acceptable to comply with the requirements of EASA AD 2016-0053.

**Part(s) Installation:**

- (5) Do not install on any aeroplane an FCD, having a P/N identified as “old” in Table 1 or Table 2 of this AD, as required by paragraph (5.1) or (5.2) of this AD, as applicable.
  - (5.1) For an aeroplane with an FCD installed having a P/N identified as “old” in Table 1 or Table 2 of this AD: After modification of that aeroplane as required by paragraph (1) of this AD.
  - (5.2) For an aeroplane that does not have an FCD installed having a P/N identified as “old” in Table 1 or Table 2 of this AD: From the effective date of this AD.



(6) Installation of LH and RH FCD, having a P/N approved after the effective date of this AD, is equal to compliance with the requirements of paragraphs (1.1) and (1.2) of this AD, provided the conditions as specified in paragraphs (6.1) and (6.2) of this AD are met.

(6.1) The P/N must be approved by EASA, or approved under Bombardier Short Brothers Design Organisation Approval (DOA), or approved under Airbus DOA; and

(6.2) The installation must be accomplished in accordance with aeroplane modification instructions approved by EASA, or approved under Bombardier Short Brothers DOA, or approved under Airbus DOA.

**Ref. Publications:**

Bombardier Short Brothers SB V25MFC-71-1003, original issue, dated 28 September 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 26 July 2017 as PAD 17-102 for consultation until 23 August 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. 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: Short Brothers, Customer Services, PO Box 241, Belfast BT3 9DZ, Northern Ireland, UK.

