



Civil Aviation Authority

AIRWORTHINESS DIRECTIVE

Number: G-2021-0012

Issue date: 20 October 2021



Note: In this Airworthiness Directive, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as "UK Regulation (EU) year/number or UK Regulation (EU) No. number/year".

This Airworthiness Directive (AD) is issued by the UK CAA in accordance with UK Regulation (EU) No. 748/2012 Part 21.A.3B, acting as the Authority of the State of Design for the affected product(s), under Article 34 of the Air Navigation Order 2016 (ANO) and UK Regulation (EU) 2018/1139.

In accordance with UK Regulation (EU) No. 1321/2014 Annex I (Part-M), M.A.301 / Annex VB (Part-ML), ML.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 or agreed by the CAA [Part-M, M.A.303 / Part-ML, ML.A.303].

Type Approval Holder's Name:

CAMERON BALLOONS LIMITED
LINDSTRAND TECHNOLOGIES LIMITED

Type/Model Designation(s):

Hot Air Balloons / Mixed Balloons (see Applicability)

Effective Date:	03 November 2021
TCDS:	UK.TC.BA.00001, UK.TC.BA.00002, UK.TC.BA.00003, UK.TC.BA.00006, EASA.BA.028, EASA.BA.030.
Foreign AD (if applicable):	N/A
Superseding AD:	None

ATA – Hot Air Balloons – Burner Assembly and Hanger – Inspection / Modification

Manufacturer(s):

Cameron Balloons Ltd, Colt Balloons, Lindstrand Balloons Ltd., Lindstrand Hot Air Balloons Ltd, Sky Balloons, Thunder Balloons, Thunder & Colt Balloons, Lindstrand Technologies Ltd.

Applicability:

All balloon types and models, as specified in the referenced TCDS listed above, all serial numbers.

Definitions:

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

Affected part A: Stratus double burner hangers, having Part Number (P/N) CB8504, Issues A to C inclusive, except those installed on an affected part B. The affected hangers are part of Stratus double burner assemblies, having P/N CB8720 or P/N CB8721.

Affected part B: Stratus double burners, having P/N CB8720 or P/N CB8721, using a doubler plate to reinforce the central part of the hanger bracket, as shown on figure 2 of the SB.

Serviceable part: Stratus double burner hangers, having P/N CB8504, Issue D, or later.

The SB: Cameron Balloons Service Bulletin (SB) 28 revision 2, which makes reference to TN3191 issue B.

DET: Detailed Inspection

Reason:

An occurrence was reported of a Stratus burner hanger, P/N CB8504, failing after landing, leaving one burner unit detached from the load frame. Investigation revealed a limited number of similar failures. Comparable issues have been experienced with other parts of the Stratus product line (see Australian CASA AWB 14-001). The suspected cause is fatigue cracking of the weld, caused mainly during ground transportation with the burner erect, combined with an overload event.

This condition, if not detected and corrected, could lead to burner falling on the balloon occupant's head, resulting in injury to balloon occupants. It could also lead to an uncontrolled cold descent and hard landing, possibly resulting in injury to balloon occupants and persons on the ground.

To address this potential unsafe condition, Cameron Balloons issued the SB, providing inspection and replacement instructions. It was determined that some burner hangers cannot be inspected as they are covered with a doubler plate to reinforce the central part of the hanger bracket.

For the reasons described above, this AD requires repetitive detailed inspections (DET) of the affected parts A and, depending on findings, replacement with a serviceable part. This AD also requires direct replacement of the burner hanger installed on affected parts B.

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

Required as indicated, unless accomplished previously:

Inspection (affected part A):

- (1) Within 30 days or 10 flight cycles (FC), whichever occurs first after the effective date of this AD, and, thereafter, at intervals not to exceed 12 months, accomplish a DET of the weld of each affected part A in accordance with the instructions of the SB.

Corrective Action(s):

- (2) If, during any DET as required by paragraph (1) of this AD, any crack is detected, before next flight, replace the affected part A with a serviceable part, as defined in this AD, in accordance with the instructions of the SB.

Credit:

- (3) DET accomplished on an affected part before the effective date of this AD in accordance with the original issue or revision 1 of Cameron Balloons SB 28 are an acceptable method to comply with the initial requirements of paragraph (1) of this AD for that affected part.

Terminating action:

- (4) Installation on a burner assembly of a serviceable part, as defined in this AD, constitutes terminating action for the repetitive DET as required by paragraph (1) of this AD for that burner assembly.

Modification (affected part B):

- (5) Within 30 days or 10 FC, whichever occurs first after the effective date of this AD, for each affected part B, replace the burner hanger with a serviceable part, as defined in this AD, in accordance with the instructions of the SB.

Parts Installation:

- (6) From the affected date of this AD, do not install an affected part A on any balloon.
- (7) From the affected date of this AD, do not install on any balloon an affected part B, unless the burner assembly is equipped with a serviceable part, as defined in this AD.

Reference Publications:

Cameron Balloons SB 28 original issue dated 15 January 2020, or Revision 1 dated 24 February 2020, or Revision 2 dated 04 March 2020.

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

Remarks:

- (1) The technical content of this AD was agreed as EASA AD No.: 2021-0042 when the UK was a Member of EASA. As such, no further consultation is required
- (2) If requested and appropriately substantiated, CAA can approve Alternative Methods of Compliance for this AD.
- (3) Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the CAA aviation safety reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
- (4) Enquiries regarding this Airworthiness Directive should be referred to: ga@caa.co.uk
- (5) For any questions concerning the technical content of the requirements in this AD, please contact:

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