

Service Bulletin 23



1. General

(a) Service Bulletin No.	23
(b) Revision / Date	3 / January 2021
(c) Title:	Lindstrand Jetstream Burner: Inspection / Modification of Toggle Valve Assemblies
(d) Description:	Part 1: Inspection of toggle valve seat carriers for wear at every 100 hour / annual inspection if mod C650 stems are not fitted. Part 2: Replacement of pre-Mod C650 valve stems with Mod C650 fail safe version.
(e) Applicability:	All 'Jetstream' burners and Lindstrand Cloudhopper burners using toggle action valves
(f) Effectivity:	All CN using Jetstream burners and Lindstrand Cloudhoppers

Note: Applicability= All types and variants to which the change can be applied.
Effectivity= Actual CN or group of CN's to which the bulletin has been/will be applied.

2. Background

The Jetstream burner and Lindstrand Cloudhopper burner are fitted with main and whisper burner valves of similar design. The original valve design is such that, if the seat carrier wears to the point of failure, the valve stem can be ejected through the base of the manifold block. This will result in an uncontained leak of liquid propane at cylinder pressure.

Results of valve inspections to Revisions 0 and 1 of this bulletin indicated significant seat carrier wear in some cases that could not be directly related to burner age or usage. As a consequence the bulletin has been amended to require inspection of the seat carrier(s) for wear at **every** 100 hour / annual inspection unless mod 650 stems have been fitted. Fitting of the mod C650 "fail safe" valve stems terminates the inspection requirement.



Parallel Stem allows stem to be ejected from valve in the event of seal-carrier wear.



Shoulder prevents ejection of stem from valve

End flat to allow Identification of Fail Safe stem when installed

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3. Compliance (Category)

Part 1: (Inspection) Highly recommended

Part 2: (Replacement of valve stems) Highly Recommended

4. Consequences of Non-Compliance(Possible)

Uncontained release of liquid propane and resultant fire

5. Accomplishment Instructions

CBL/TN/PJ/2900 iss. F or later

6. Materials

Part 1: None or Seat carrier BU-8018

Part 2: Part kits CQ2042, CQ2043, CQ2044 and/or CQ2062

7. Other Publications Affected

Lindstrand Illustrated Parts Catalogue 2011 (in revision)

8. Mass(Weight)/Balance: Not Affected

9. Maintenance and Operating Instructions: Not Affected

10. Additional Information

Compiled by:


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Notes:

None

Date: 25-01-2021

Name: P Johnson

11. Design Organisation Approval

Statement of Compliance Verification

I hereby confirm that the instructions identified in this bulletin provide for practical and well-defined installation/inspection methods and when accomplished the product is in conformance with approved design data.

Signed, for and on behalf of Cameron Balloons Ltd.


.....

Office of Airworthiness (not to be signed by form compiler)

Date: 25-01-2021

Name: D C Boxall

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Approval Statement

I hereby confirm that these instructions are in compliance with all the applicable airworthiness requirements. The technical content of this document is approved under the authority of DOA no. UK.21J.0140

Signed, for and on behalf of Cameron Balloons Ltd.

.....
PP Head of Design



Date: 25-01-2021

Name: D C Boxall

Note: If this Service Bulletin is or will become an Airworthiness Directive, a statement to that effect must be entered in Section 10 of this form.

Lindstrand Jetstream Burner: Service Bulletin No. 23

Accomplishment Instructions:

Approved under the authority of DOA nr EASA.21J.140.

This service bulletin applies to all toggle-action valves on Lindstrand Jetstream burners.

This service bulletin consists of two parts.

Part 1: Inspection of toggle valve seat carriers for wear at **every** 100 hour /annual inspection if mod C650 stems are not fitted. This inspection is **Highly Recommended**.

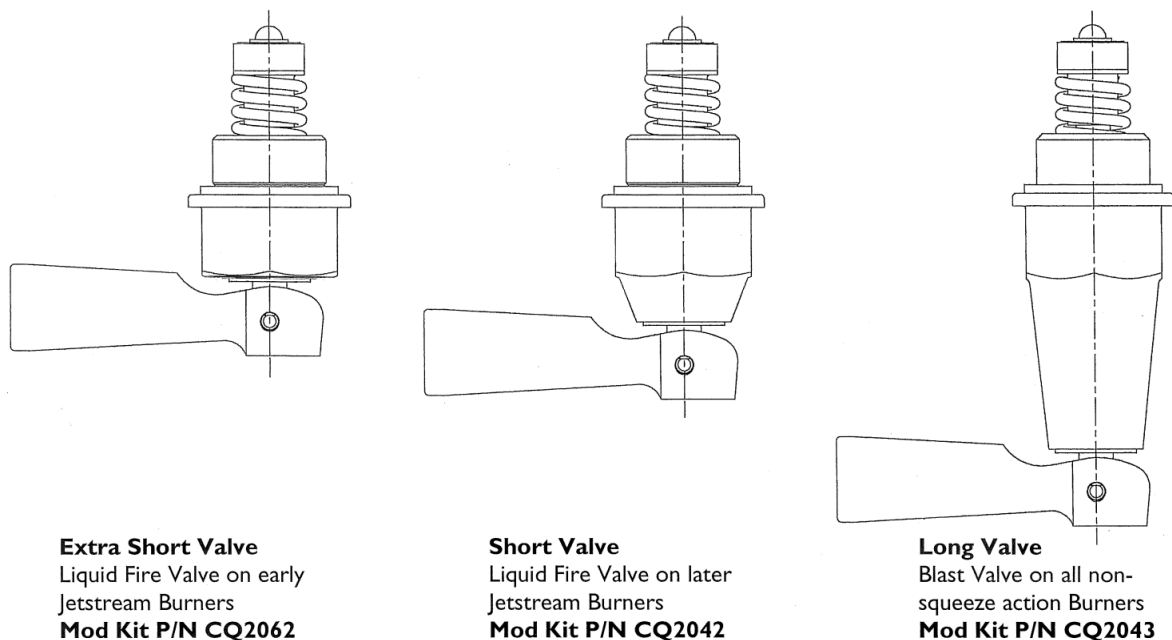
Part 2: Replacement of pre-Mod C650 valve stems with Mod C650 fail safe version. This modification is **Highly Recommended**.

Inspection or modification of Squeeze action Main valves is not required since the squeeze action handle configuration means that the stem cannot be ejected. All toggle action valves on such burners should be inspected or modified.

Four different valve configurations exist; the only difference between these valve assemblies is the height of the bonnet and the length of the valve stem. If the valve stems are to be replaced each will require the appropriate seal kit.

Lindstrand Jetstream Burner: Valve Type Identification

Outline drawings of valve types and applicable SB23 Mod Kit part numbers:



Note:
On burners with hydraulic remote control a special type **Long Valve** is fitted. Mod Kit P/N CQ2044

Fig 1: Valve type identification

1. Move the valve handle into a vertical position so that the valve is in an open position. Visually check that the end of the Valve Stem is a full spherical dome indicating that the Stem is pre-Mod C650. (If the end of the Stem has a machined flat face of approximately 4mm diameter, rather than a full dome, then a post-Mod C650 stem has already been fitted and no further action is required on the valve). If mod C650 has already been fitted fill out and return the confirmation slip.
2. Dismantle the valve assembly according to the instructions in the Lindstrand maintenance manual.
3. **Inspect the Seat Carrier for suitability for continued service:** Inspect the T-slot at the back of the seat carrier for any wear step in the side wall of the slot (ref figure 2). If a step is visible measure how deep it is by comparison to a ruler marked in half millimetre divisions, or other suitable method, and record the result on the Service Bulletin confirmation slip. If the wear step is less than 0.2mm then the seat carrier is acceptable for continued service. If the wear step is more than 0.2mm the seat carrier must be replaced

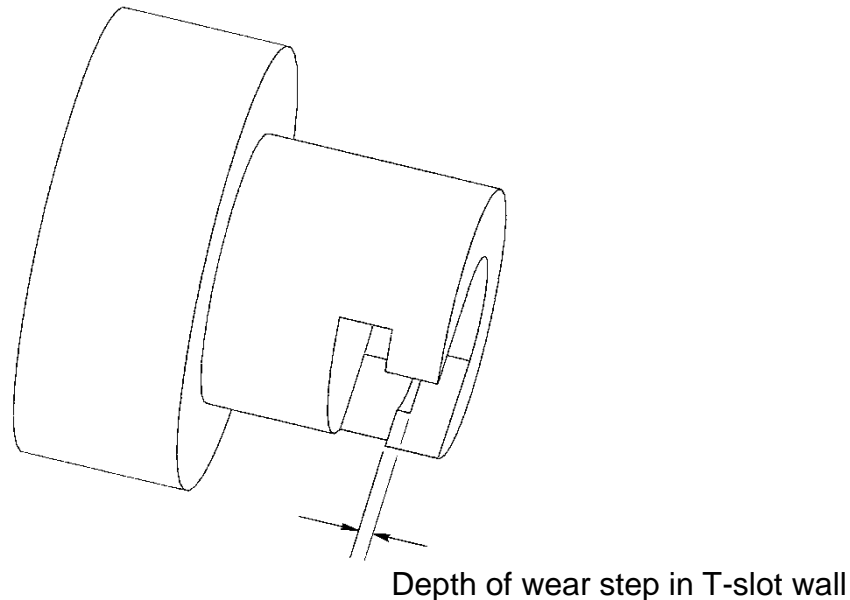


Fig 2: Seat carrier wear step measurement

Reassembly

4. If Mod C650 stems are being fitted discard the original stem, seat carrier sleeve and associated seals and gaskets and replace them with the ones in the mod kit. Note that the Mod Kit does not contain a replacement seat carrier.
5. Reassemble the burner according to the instructions in the Lindstrand maintenance manual.
6. When the modification has been completed, assemble the burner to a basket and fuel cylinder in the usual fashion and ensure there are no external leaks from any point. Then test fire the burner checking each valve for correct function.

7. If during the test any leakage or malfunction is noted this must be rectified in accordance with the procedures of the appropriate section of the Maintenance Manual before the burner is returned to service.

Identification and documentation

8. Upon successful completion of the seat carrier inspections, or embodiment of the valve stem replacement modification, make an entry in the logbook stating that either:
 - (a) An inspection to CBL Service Bulletin No 23 has been completed
 - or
 - (b) All the affected valves have been modified with Mod kits CQ2042 and CQ2043 or CQ2044 or CQ2062 in accordance with CBL Mod C650.

The logbook must be signed by an inspector approved by the National Airworthiness Authority.

9. If mod. kits have been installed to all affected valves engrave 'Mod C650' on the valve block adjacent to the burner serial number (if present). If no number present, engrave on the side of the block adjacent to the crossflow.
10. If Mod kits have been fitted submit the Confirmation Slip for the Service Bulletin completion so that Cameron Balloons Ltd can update the Jetstream Mod C650 fitment database.

Compiled By:



P Johnson 16-10-20

Approved by:



D Boxall 16-10-20

Revision Record:

Issue A	Initial issue
Issue B	Additional data entries added on confirmation slip
Issue C	Para 23 Loctite 243 added (Lindstrand SI No. 1): FJD 07/01/2016
Issue D	Extra Short Spindle Valve and CQ2062 references added
Issue E	Completely revised for SB23 Revision 2: DCB 09/03/2017
Issue F	Approval Statement added PJ 16/10/2020

Mod C650 Confirmation Slip

Mod C650 "fail safe stems" have been fitted to the following burner:

Burner Serial Number.

Block Numbers.

Balloon Registration.....Balloon Serial Number.....

Owner/Operator.....

Contact address / email.....

Signed..... Date

Please return this slip by post to:

Cameron Balloons, St Johns Street, Bedminster, Bristol, BS3 4NH, England

Or scan and email to: technical@cameronballoons.co.uk