

Safety Information Bulletin

Airworthiness

SIB No.: 2023-07**Issued: 23 June 2023****Subject: Main Cargo Door Opening in Flight****Ref. Publications:**

- German Federal Bureau of Aircraft Accident Investigation (BFU) Interim Report [BFU21-0052-EX](#) dated 13 February 2021.
- Precision Conversions LLC Service Bulletin (SB) PC 757-52-0006, Revision 28, dated 24 October 2022, “Doors – Main Cargo – Indication System Changes”.
- Precision Conversions LLC SB PC 757-52-0007, Original issue, dated 18 July 2006, “Doors – Main Cargo – Collective Locking System Modification”.
- Precision Conversions LLC Supplemental Operations Manual PC-0118-02, Revision AA.
- Precision Conversions LLC Supplemental Maintenance Manual PC-0118-06, Revision V.

Applicability:

Boeing 757-200 aeroplanes, converted from passenger to freighter in accordance with EASA Supplemental Type Certificate (STC) 10015539.

Description:

An occurrence was reported, where a Boeing 757-236 PCF aeroplane experienced sudden in-flight full opening of its Main Cargo Door (MCD). This serious incident occurred during the initial climb of the aeroplane, and at relatively low altitude, thus avoiding an explosive decompression.

The involved MCD had been installed a few years before the event in accordance with EASA STC 10015539, which allows conversion of Boeing 757-200 aeroplanes from passenger to freighter configuration. The EASA STC was issued as validation of the original FAA STC ST01529SE, granted to Precision Conversions LLC.

Later, EASA was made aware that a similar incident had already occurred in 2014 on another Boeing 757-236 PCF aeroplane also modified with the same MCD installation.

The investigation of the recent serious incident is currently on-going, but the interim report referenced above already provides details of the current understanding of the occurrence, as well as a description of the MCD installation, including the door actuation, its closing and locking mechanisms, and the door’s status monitoring and warning system.

Several possible root causes are currently being analysed, including the possibility of the presence of air in the MCD self-contained hydraulic system, which may possibly have resulted in an undetected out-of-sequence closing and locking of the door.

This is information only. Recommendations are not mandatory.



Severe weather conditions and suspected ice contamination of MCD position sensors may also have contributed to not detecting the actual unlocked status of the door before take off.

At this stage, EASA has decided to issue this SIB in order to recommend operators of aeroplanes modified with EASA STC 10015539 to apply the listed below precautionary measures.

Note: These measures are not provided as a final fix of the encountered issue, and they do not substitute any future safety recommendations issued by BFU.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under Regulation (EU) [748/2012](#), Part 21.A.3B.

Recommendation(s):

EASA recommends to the operators the following measures to mitigate MCD opening in flight risk:

- Verify that the design improvements described in Precision Conversions LLC SB 757-52-0006 and SB 757-52-0007 have been embodied on the aeroplane (either in service via the SBs, or in production as a forward fit) and, if not, implement the changes at the first opportunity.
- Verify that the condition of the MCD View Ports of the MCD still warrants a good viewing of the latch/lock mechanism position (e.g. glass condition, scratches), and restore as necessary.
- Check if the features described in Precision Conversions LLC SB 757-52-0007 are still present and in good condition (e.g. mirrors, colour contrast paint on the tip of the lock-pin) – see Figure 1 and Figure 2 below.

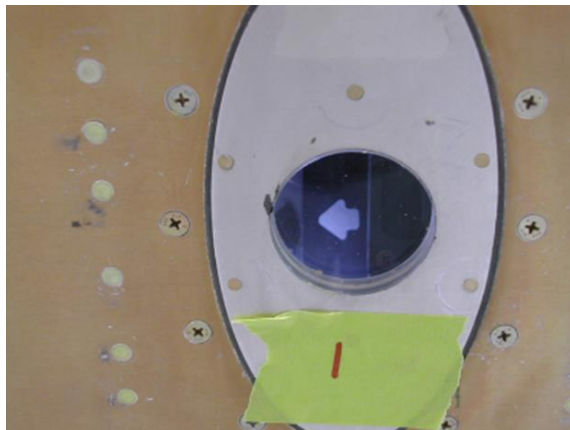


Figure 1. Viewport example.

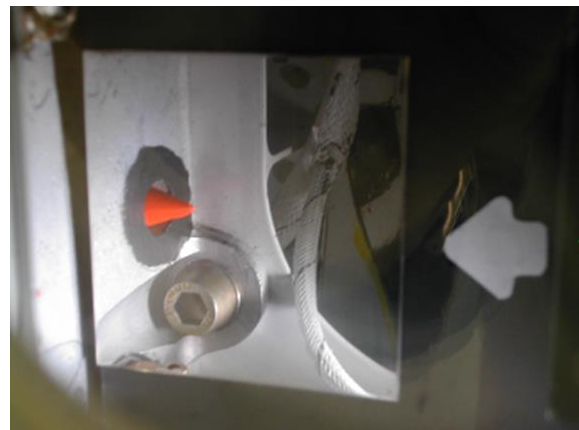


Figure 2. Colored tip of lock-pin as seen in installed mirror.

Source: Precision Conversions LLC

- Include into the operator's Aircraft Maintenance Program (AMP) a task for the periodic check of the condition of the features described in Precision Conversions LLC SB 757-52-0006 and SB 757-52-0007 (Note: Precision Conversion LLC Supplemental Maintenance Manual PC-0118-06 52-30-00, pages 701-705 contains information on cleaning the mirrors, the view port windows, and painting the lock-pin tips).

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- In cold weather conditions, snow or in case of expected freezing conditions:
 - Prior to door closure, perform a visual inspection of the MCD sill area for possible contamination by slush, snow or ice accretion;
 - Before each departure, flight crew or trained cargo personnel should verify that the MCD is fully closed, latched and locked by visual inspection of marker indicators.

Note: Precision Conversions LLC Supplemental Operations Manual ref. PC-0118-02, pages 1.50.8-9 has information on closing the MCD, including procedures that may be used to verify the MCD is closed, latched and locked.

Contact(s):

For further information contact the EASA Safety Information Section, Certification Directorate.

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