



## EASA Safety Information Bulletin

**SIB No.:** 2010-25  
**Issued:** 27 August 2010

**Subject:** **Cabin Oxygen Mask Service Recommendations from Original Equipment Manufacturers, and Cabin Oxygen Masks with B/E Aerospace In-line Flow Indicators Part Number (P/N) 118023-02.**

**Ref. Publications:** B/E Aerospace Service Information Letter 174095-SIL-1 Revision 1 dated 10 May 2010, "Maintenance of TSO Passenger Oxygen Masks".

- EASA [AD 2010-0165](#) for Airbus A318, A319, A320 and A321 aeroplanes.
- EASA [AD 2010-0112](#) for Fokker F28 Mark 0070 and Mark 0100 aeroplanes.
- FAA [AD 2008-06-24](#) for Boeing 737-300, -400 and -500, recently superseded by [AD 2010-14-06](#) for Boeing 737-200, -300, -400 and -500 aeroplanes.
- FAA [AD 2008-13-21](#) for Boeing 767 aeroplanes.
- FAA [AD 2008-12-05](#) for Boeing 777 aeroplanes.
- FAA [AD 2008-08-08](#) for Boeing 757 aeroplanes.
- FAA [AD 2007-26-06](#) for Boeing 747-200B, -300 and -400 aeroplanes.

**Applicability:** CS<sup>1</sup>-23 & CS-25 aeroplanes equipped with cabin oxygen masks.

**Description:** In-service occurrences on Boeing aeroplanes led the FAA to publish, between December 2007 and July 2010, a number of Airworthiness Directives (ADs, as referenced above) addressing the breaking of B/E Aerospace in-line flow indicators part-number 118023-02, installed on different models of B/E Aerospace oxygen masks that were manufactured from the 1<sup>st</sup> of January 2002 to the 28<sup>th</sup> of February 2006 inclusive. Recent in-service occurrences led EASA to publish, in 2010, two ADs to address the same failure of the same population of in-line flow indicators within oxygen masks installed on Airbus and Fokker aeroplanes.

<sup>1</sup> 'CS' in that document should also be construed as 'JAR' or any preceding similar airworthiness codes.

This type of in-line flow indicators is not exclusively used in oxygen masks installed on Airbus, Boeing or Fokker aeroplanes but can also be used on other aeroplane models, including CS-23 and CS-25 category aeroplanes. Furthermore, this type of in-line flow indicators is not only installed in B/E Aerospace masks but could also be found within oxygen masks from Puritan-Bennett Aero Systems<sup>2</sup>. The types of masks that have this in-line flow indicator fitted are typically installed in the passenger cabin within the passenger oxygen dispensing units, the flight attendant equipment and lavatory oxygen units.

At the present time, EASA and FAA specialists are working in cooperation to determine the most appropriate course of action at aeroplane and/or equipment levels.

During the investigation, EASA noted that on multiple occasions the operators' aircraft maintenance manuals and the operators' aircraft schedule maintenance programmes did not reflect the service recommendations from the original equipment manufacturers for the cabin oxygen masks. Although not mandatory, these service recommendations, which derive from several years of in-service data gathering and field experience, are key elements to ensure that the masks will perform their intended function. The differences in materials used within the mask assemblies and in environmental conditions where the aircraft are flown, mean that these recommendations may need to be adapted to reflect the local operating conditions, and re-adjusted with the operator's experience accumulated over the course of time.

**Recommendations:** The first purpose of this SIB is to inform all aircraft owners, operators and maintenance companies that B/E Aerospace in-line flow indicators, part-number 118023-02, installed on B/E Aerospace oxygen masks that were manufactured on or after the 1<sup>st</sup> of January 2002 and before the 1<sup>st</sup> of March 2006 can be subject to failure and break loose.

When the in-line flow indicator breaks, no oxygen flows to the mask cup. The oxygen leaks out of the broken flow indicator, thereby putting the user at risk when supplemental oxygen is needed. To address this failure mode, B/E Aerospace developed a fix consisting of replacing the P/N 118023-02 in-line flow indicators with new ones of an improved design P/N 118023-12 (see fig.1 below).

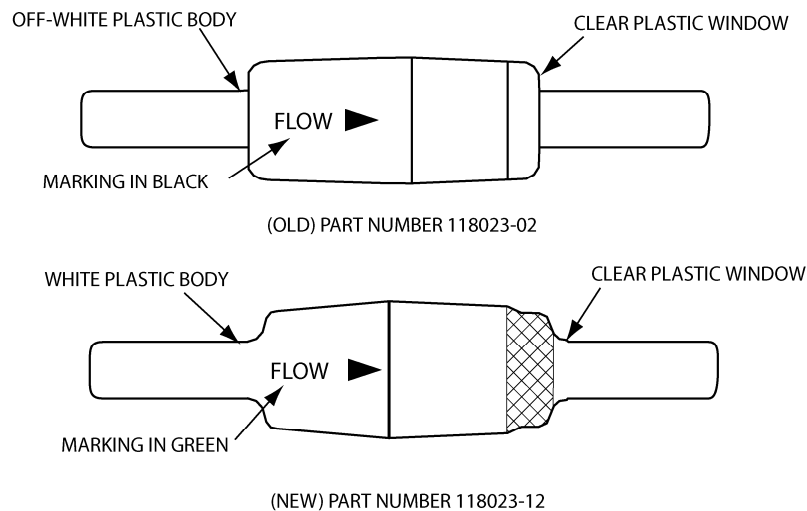
Until EASA and the FAA complete their review to determine if further AD actions are needed, EASA reminds all aircraft owners, operators and maintenance companies that complying with service recommendations as defined in B/E Aerospace Service Information Letter 174095-SIL-1 Rev.1, is a means to help the early detection of close-to-failure in-line flow indicators P/N 118023-02. These service recommendations also help ensure that certain life-limited elastomeric materials used in these mask assemblies are monitored and replaced upon condition with the

<sup>2</sup> Puritan-Bennett Aero Systems (PBASCO) was sold to BE Aerospace Inc. in April 1998.

appropriate overhaul kit specified in the applicable Component Maintenance Manual.

Second, all aircraft owners, operators and maintenance companies should verify they are familiar with the latest service recommendations from the oxygen masks original equipment manufacturer – all manufacturers taken together - regarding service life and maintenance of their respective oxygen mask assemblies. And, if not previously done, operators should include these service recommendations into their operator's aircraft maintenance manual and operator's aircraft schedule maintenance programme.

**Figure 1** – How to distinguish B/E Aerospace in-line flow indicators P/N 118023-02 from -12



**Contacts:**

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Original equipment manufacturers oxygen mask maintenance schedule and data can be obtained from their respective technical support departments:

For B/E Aerospace oxygen masks, you can contact:

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