EASA Safety Information Bulletin

SIB No.: **2008-83**
Issued: **10 December 2008**

Subject: **Failure of Passenger Oxygen Cylinder.**

Ref. Publication: None.

Description: This SIB is published to advise all owners and operators of aircraft that have United States Department of Transportation (USDOT) type 3HT passenger or crew stationary oxygen cylinders installed, that a potential risk has been identified, associated with the use of these cylinders.

On July 25, 2008, a Boeing Model 747-400 aircraft suffered a decompression while being operated by Qantas Airlines at a cruising altitude of 29 000 feet. Upon investigation of the incident, led by the Australian Transport Safety Bureau (ATSB), it was discovered that the decompression was caused by a failure of one of the stationary passenger oxygen cylinders installed in the right hand sidewall of the forward cargo compartment. The cylinder ruptured which created a hole in the fuselage large enough that the cabin pressure could not be maintained. The investigation is still being conducted to gather more information and try to determine the likely cause of cylinder rupture. In the interim, details of the event and preliminary investigation results have been published by the ATSB. A copy of the preliminary factual report is available via the Internet, on the ATSB's website: http://atsb.gov.au/publications/investigation_reports/2008/AAIR/aair200804689.aspx .

The ruptured oxygen cylinder is a USDOT Type 3HT-1850 cylinder, which is a seamless steel cylinder used commonly throughout the aviation industry. The cylinder in question was identified with Part Number (P/N) 10003367 which was used on a P/N 801307-00 oxygen cylinder assembly for the Boeing Model 747-400 installation. Cylinders of the same part number are also used on several other aircraft types for both crew and passenger oxygen systems. The ruptured cylinder was part of a lot of 94 cylinders, serial number range from 535585 to 535678 that were manufactured in early 1996. A records review indicates that the ruptured cylinder was last hydrostatically tested in May of 2008.

After reviewing the available information, EASA recommend that all organizations in Europe that are performing inspection, testing,

maintenance and repair activities on aviation oxygen cylinders, as well as owners and operators of aircraft fitted with pressurized gaseous oxygen systems, take note of the preliminary report issued by the ATSB with the aim of ensuring that all oxygen cylinders and cylinder installations are maintained in full accordance with the relevant manufacturer's requirements, prevailing European regulations, and established engineering best practices. In support of the continued investigation, if any cylinders with the same part number and within the same serial number range as described above can be identified and located, please provide that information to EASA at the contact information address provided below. This information will be provided to the accident investigation team and additional steps taken as necessary.

Applicability: USDOT Type 3HT passenger- and crew stationary oxygen cylinders.

These cylinders are known to be installed on, but not limited to, Airbus A300-600, A310 and A320 series, Boeing 707, 727, 737, 747, 757 and 767 series, and McDonnell Douglas DC-9, DC-10 and MD-11 series aircraft.

Contact: For further information contact the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu.