



**SAIB:** NM-13-34

**Date:** May 23, 2013

**SUBJ:** Oxygen System

*This is information only. Recommendations aren't mandatory.*

## **Introduction**

This Special Airworthiness Information Bulletin advises registered owners and operators of **certain aircraft equipped with gaseous oxygen systems** of an airworthiness concern regarding failure of certain low pressure flexible oxygen hoses manufactured by O2 Corporation.

At this time the airworthiness concern has not been determined to be an unsafe condition that would warrant airworthiness directive (AD) action under Title 14 of the Code of Federal Aviation Regulations (14 CFR) part 39.

## **Background**

We have received reports of low pressure hoses becoming rigid or brittle and failing in service due to cracking and breaking. The service life of these hoses can be dependent on the type of installation and the operating environment. Temperature extremes, humidity and moisture, liquid agents, standing pressure, and mechanical stress are examples of conditions that could affect hose life. Without adequate inspection and/or replacement action, this condition may result in an undetected failure of the oxygen system to deliver oxygen to the masks when needed. These hoses may have been installed on a wide range of aircraft by FAA approvals such as type certificates, supplemental type certificates, field approvals, or other approvals.

The O2 Corporation has issued Service Letter 02-SL-001, dated October 10, 2012, to provide operators with guidelines to inspect hoses having base part numbers O2C20T1, O2C20T3, O2C20T5, O2C20T13, O2C20T14, O2C20T15, and O2C20T16, for proper installation and routing, and for any discrepancies identified in the service letter. These are the base part numbers; the actual hose part numbers will include a code to identify the end fitting and length. Additionally, for some installations, the hoses may be part of a higher subassembly such as a passenger service unit, and therefore O2 Corporation part numbers may not appear in an aircraft parts manual.

Note: This service letter indicates that the hoses in question were manufactured in 2001, but specifies that the service letter could be relevant to all hose part numbers of the series mentioned therein. No data have been submitted to substantiate that the hoses in question should be limited to the units manufactured in 2001. Therefore, this SAIB applies to all hoses of this series, regardless of date of manufacture.

Periodic inspection and replacement of the subject hoses is encouraged. The referenced Service Letter contains recommended inspection criteria. When determining an inspection interval, it should be considered that a hose was discovered to be in a failed condition after 8 years in service (and it is not known when the failure occurred).

## **Recommendations**

The FAA recommends that all owners and operators of the subject aircraft comply with the guidelines outlined in O2 Corporation Service Letter 02-SL-001, dated October 10, 2012. We also recommend that all operators of aircraft with installed oxygen systems pay particular attention in their inspection and maintenance programs to flexible hoses installed in the oxygen system.

We also recommend that design approval holders of installations utilizing these hoses review their installations for adequacy and refer to the above mentioned O2 Corporation service letter. Design approval holders are advised to review their instructions for continued airworthiness to determine if procedures for inspecting and replacing the hoses to prevent undetected hose failures in service are adequate. Although the subject hoses are the reason for issuing this bulletin, these recommendations could be applicable to any similar hose installation that utilizes age-sensitive elastomer materials.

### **For Further Information Contact**

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### **For Related Service Information Contact**

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