

**SERVICE BULLETIN
B43573-1-35-001**

ATA SYSTEM: 35

**TITLE: EMERGENCY PASSENGER OXYGEN SYSTEM ADDITION OF
BRACKET TO STRENGTHEN THE HAND VALVE / REDUCER
STRUCTURAL INTERFACE**

1. PLANNING INFORMATION

A. EFFECTIVITY

This service bulletin is applicable to the Passenger Emergency Oxygen Systems component with the following:

(1) UNITS AFFECTED:

B43573-1, OXYGEN PRESSURE REDUCER

(2) AIRCRAFT AFFECTED:

**Saudi Oger 1 (SAO) Boeing B737-7BC, tail number VP-BYA,
MSN 29972, IPC Eff.: YG073**

**NetJet 1 (BNJ), Boeing B737-7BC, tail number N191QS, MSN 30791,
IPC Eff.: YG038**

The Fuselage Number relationship is provided for information only and is accurate at the time of issue in accordance with the information available at Carleton Technologies, Inc.

This bulletin applies only to the retrofit of these (2) aircraft.

B. REASON

The B737 Boeing Business Jet as modified by Lufthansa Technik standard configuration incorporates four (4) Cylinder and Hand Valve/Emergency Reducer Assemblies per aircraft, which provide the oxygen source for the Emergency Passenger Oxygen System supplied by Draeger Aerospace.

The Emergency Reducer assembly is attached by a CGA inlet fitting to the Cylinder and Hand Valve Assembly (see Fig 1). The Hand Valve is equipped with a brass CGA outlet fitting. Vibration testing conducted at Carleton Technologies, Inc. (the manufacturer of the Hand Valve, and Emergency Reducer), indicates that installations of this hardware configuration without rigid mounting of the Reducer to the airframe will result in a concentration of stress on the outlet threads of the Hand Valve. This stress concentration could diminish the Hand Valve safety margin against structural failure under certain vibration conditions. The testing which revealed this potential problem was conducted at the Robust Random Vibration levels specified in RTCA/DO-160D.

Therefore, Carleton Technologies has designed a bracket (PN B44044-1) which stiffens and reinforces the structural interface between the Cylinder and Hand Valve Assembly and the Emergency Reducer Assembly.

C. DESCRIPTION OF CHANGES

The Bracket Assembly part number B44044-1 shall be installed around the structural interface between the Cylinder and Hand Valve assembly and the Emergency Reducer Assembly (as shown in Figure 1).

The bracket assembly is installed by positioning the two mating halves of the bracket around the area to be reinforced, aligning the parts, and securely clamping the bracket in place, using socket head cap screws, washers, nuts, and threadlocker.

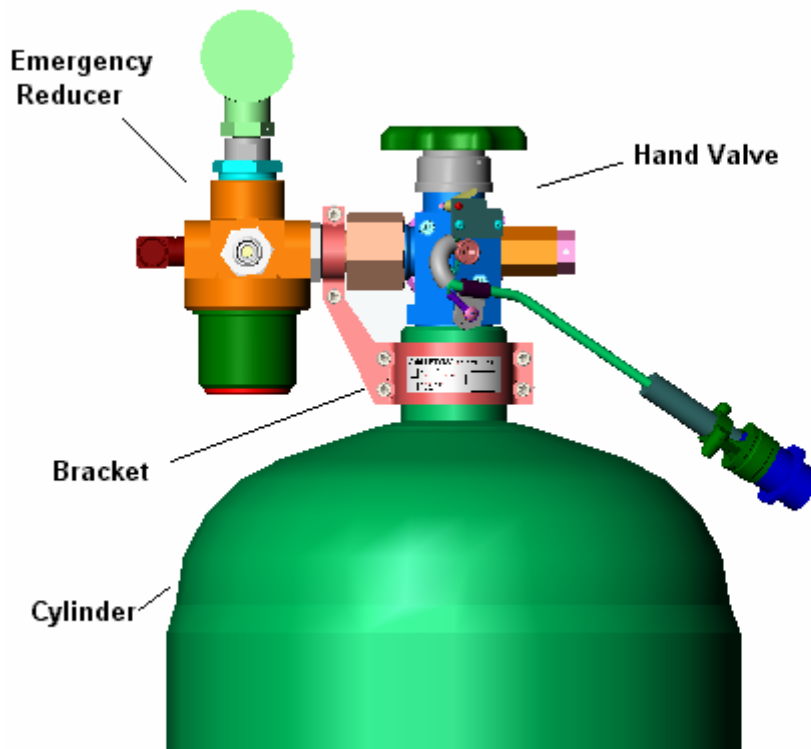


Figure 1

D. COMPLIANCE

Compliance is MANDATORY at the earliest maintenance opportunity when personnel and materials necessary to do the changes are available.

E. APPROVAL

This Service Bulletin has been approved by the authority of Luftfahrt-Bundesamt German Civil Aviation Administration (LBA).

F. MANPOWER

This Service Bulletin may be accomplished in approximately 1 hour per aircraft (elapsed time).

G. MATERIAL - COST AND AVAILABILITY

The (8) Bracket Assemblies will be provided free of charge to the operator for the accomplishment of this service bulletin (for the 2 specified aircraft only).

TOOLS

NOTE: Equivalent tools may be substituted.

DESCRIPTION	PART NUMBER	SOURCE
7/64" Hex Bit	N/A	commercial
5/16" Open End Wrench	N/A	commercial
Torque Wrench	NA	commercial
Threadlocker	290	Loctite or equivalent

I. WEIGHT AND BALANCE

Weight: 65 grams maximum

Balance: unknown

J. REFERENCE

CMM 35-22-03 Cylinder and Hand Valve

CMM 35-22-06 Emergency Oxygen Reducer

SB E62800-00-35-001 Service Bulletin (Draeger Aerospace)

K. PUBLICATIONS AFFECTED

AMM NOT AFFECTED

CMM 35-22-03 Cylinder and Hand Valve (a reference note will be incorporated)

CMM 35-22-06 Emergency Oxygen Reducer (IPL for bracket will be included)

SB E62800-00-35-001 Service Bulletin (Draeger Aerospace)

2. ACCOMPLISHMENT INSTRUCTIONS

A. GENERAL

General service information shall be included in the Component Maintenance Manuals listed above and the B737 Boeing Business Jet Aircraft Maintenance Manual.

WARNING: STRICTLY OBEY THE PROCEDURES FOR THE USE OF OXYGEN EQUIPMENT. DO NOT USE ANY OIL, GREASE, HYDROCARBONS OR OTHER LUBRICANTS MADE FROM PETROLEUM IN THE WORK AREA OF THIS OXYGEN EQUIPMENT. THIS CAN CAUSE A DANGEROUS FIRE HAZARD.

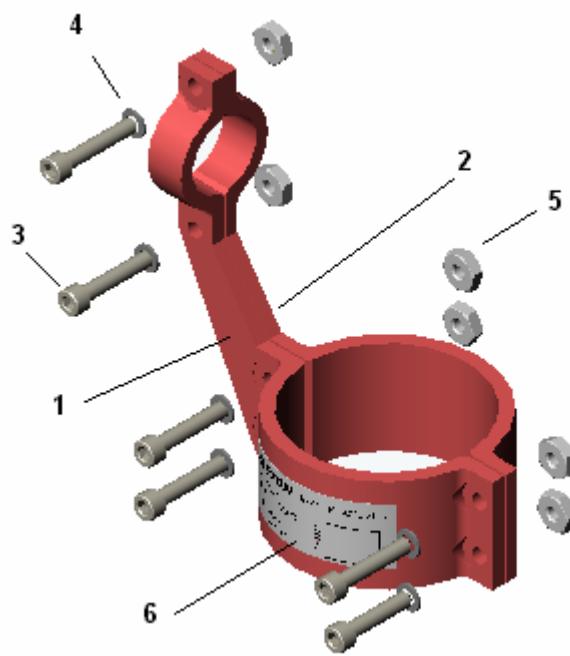


Figure 2

B. LIST OF MATERIALS

ITEM	DESCRIPTION	QTY PER ASSEMBLY	PART NUMBER	SOURCE
xx	Bracket Assy	1	B44044-1	Carleton Technologies. Inc.
1	Bracket, Left Hand	1		
2	Bracket, Right Hand	1		
3	Screw, Socket Head, Cap	6		
4	Washer, Flat	6		
5	Nut, Hex	6		
6	Label	1		

C. PROCEDURE

NOTE: THE MODIFICATION IS RECOMMENDED TO BE PERFORMED ON AIRCRAFT. THEREFORE, DO NOT REMOVE THE CYLINDER AND VALVE / REDUCER ASSEMBLY FROM THE AIRCRAFT.

CAUTION: THE LEFT AND RIGHT SIDES OF THE BRACKET ARE NOT INTERCHANGEABLE – THEY ARE “MIRROR IMAGE” PARTS.

- (1) Separate the left and right halves of the bracket assembly and place the halves in position around the area to be reinforced as shown in Figure 2.
- (2) Align the two halves to firmly clamp the required components.
- (3) Install flat washers onto the socket head cap screws.
- (4) Install the six socket head cap screws through the holes in both halves of the bracket from either side of the bracket.
- (5) Apply Loctite 290 or equivalent thread locking liquid to the threaded portion of the socket head cap screws protruding from the side of the bracket.
- (6) Attach hex nuts to the socket head caps screws and torque to 18 +/- 2 inch pounds (2.0 +/- 0.25 N-m). Torque screws evenly to ensure consistent spacing between bracket halves and uniform loading of clamped components.