

AP 107D-0400B-I

2nd Edition, Feb 77
(Superseding issue, Oct 71)

GASEOUS OXYGEN BAYONET UNIONS, QUICK-RELEASE CONNECTORS AND QUICK-DISCONNECT CONNECTORS

QUICK-REFERENCE DATA

GENERAL AND TECHNICAL INFORMATION

BY COMMAND OF THE DEFENCE COUNCIL



Ministry of Defence

Sponsored for use in the
ROYAL NAVY by HAD (N)
ROYAL AIR FORCE by D Air Eng (RAF)

Prepared by Normalair-Garrett Ltd., Yeovil BA20 2YD
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the channel prescribed for the purpose in:
AP(N) 140 Chap. 1 Annex A (RN)
AP 100B-01 Order 0504 (ARMY and RAF)

Issued Feb 77

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AMENDMENT RECORD SHEET

To record the incorporation of an Amendment List in this publication,
sign against the appropriate A.L. No. and insert the date of incorporation.

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GENERAL

Introduction

1. Bayonet unions, quick-release connectors and quick-disconnect connectors are used in oxygen installations where it is necessary to quickly connect or disconnect hoses. A typical example is the connection employed to connect an oxygen mask hose with the supply hose. For information concerning connectors which form part of a personal equipment connector (PEC) reference should be made to the relevant air publication in the AP 109B - 01 series.

WARNING...

- (1) MANY MATERIALS, PARTICULARLY OIL AND GREASE, ARE SUBJECT TO SPONTANEOUS COMBUSTION WHEN EXPOSED TO UNDILUTED OXYGEN UNDER PRESSURE. PRECAUTIONS MUST BE TAKEN, THEREFORE, TO EXCLUDE OIL, GREASE, DUST AND METAL PARTICLES FROM THE CONNECTORS.
- (2) CLEANING AND DEGREASING OF OXYGEN COMPONENTS MUST BE DONE STRICTLY IN ACCORDANCE WITH THE INSTRUCTIONS CONTAINED IN AP 107D-0001-1, CHAP 4.
- (3) INFORMATION CONCERNING THE USE OF NON-METALLIC MATERIALS FOR USE WITH OXYGEN EQUIPMENT WILL BE FOUND IN AP 107D-0001-1, CHAP 2-2.
- (4) AT ALL TIMES WHEN A CONNECTOR IS NOT IN USE, PROTECTIVE CAPS MUST BE FITTED TO THE INLET AND OUTLET, AND THE CONNECTOR KEPT IN A TIED OR SEALED POLYTHENE BAG.

DESCRIPTION

2. A bayonet union comprises a bayonet plug and socket, and makes a positive connection. A quick-release connection is one where a hard pull will effect disconnection, while a quick-disconnect connection affords a positive lock which, in the event of seat ejection, is released automatically by a static line. Most quick-release sockets incorporate a locking sleeve which must be gripped when disconnecting the plug in order to operate the lock.

3. This publication provides quick-reference data in tabular form (Table 1) of all oxygen unions and connections. Detailed information concerning unions and connectors will be found in AP 107D-0400C-12 or in the air publications specified in Table 1.

MAINTENANCE

4. Faults with oxygen unions and connections are most likely to be caused by the rubber components. If sealing washers or valves show signs of perishing, such as loss of elasticity, cracking or wrinkling, they are to be renewed. Other causes of unserviceability may be bent or broken pins, or broken springs; these can usually be detected by visual examination. For servicing information concerning a particular type of connection, refer to the relevant air publication.

5. Oxygen connectors must be maintained clean, dry and free from foreign matter.

TABLE 1

Quick-reference data

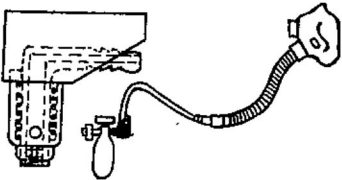
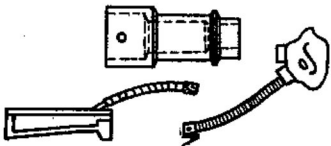
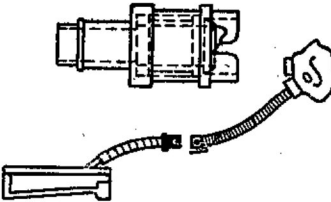
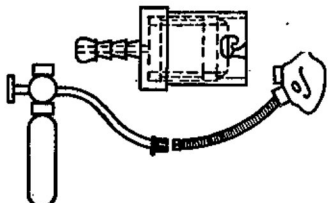
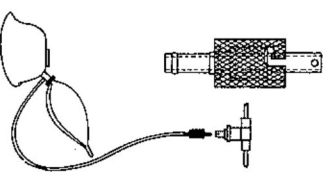
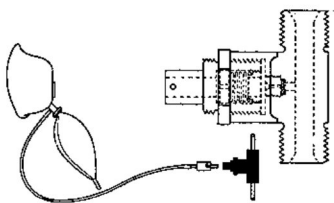
Item and typical application	Nomenclature	Mk	Ref No	Remarks
	Bayonet plug	3B*	6D/101	Used on the adapter hose of walk-round oxygen set, Mk 1B. (Normalair-Garrett Ltd)
	Bayonet plug	4B	6D/1433	Fitted to mask tube assembly, Mk 2, which is used on certain oxygen masks of the Type H series. (Normalair-Garrett Ltd)
	Bayonet socket	4B	6D/1300	Forms a connection with the Mk 4B plug. Incorporates rubber seal instead of spring. Gas-tight. (Normalair-Garrett Ltd)
	Bayonet socket	4E	6D/1306	Attached to the outlet hose of certain walk-round oxygen sets. Incorporates rubber seal. Gas-tight. (Normalair-Garrett Ltd)
	Bayonet plug	6	6D/1037714	Attached to mask, Type L and used by passengers in certain transport aircraft. May be used with economizers. Also used with certain EO sets. (Normalair-Garrett Ltd)
	Bayonet socket	6	6D/1378	Used with Mk 6 plug. Contains metering jet and cut-off valve which opens on insertion of plug. (Normalair-Garrett Ltd)

TABLE 1 (Cont'd)

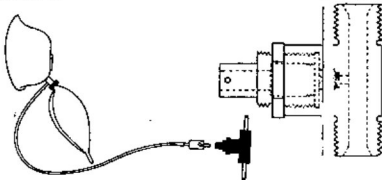
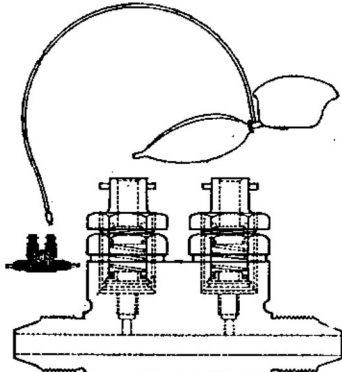
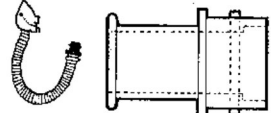
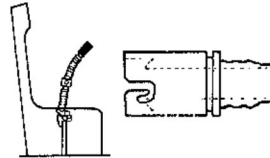
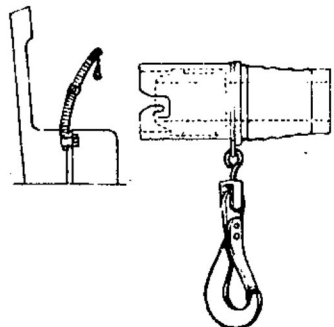
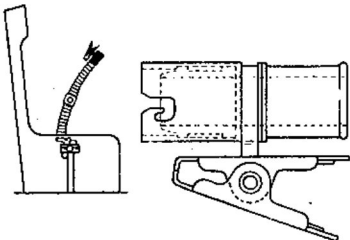
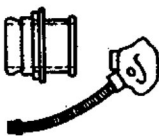
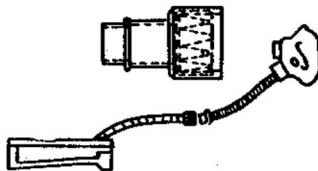
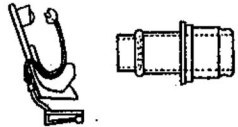
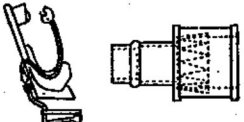
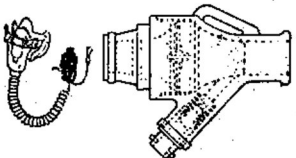
Item and typical application	Nomenclature	Mk	Ref No	Remarks
	Bayonet socket	6A	6D/1379	<p>Similar to Mk 6 socket except that cut-off valve is not fitted. Distinguished by red band round bayonet connection.</p> <p>(Normalair-Garrett Ltd)</p>
	Bayonet socket	6B	6D/1419	<p>Twin version of Mk 6 socket.</p> <p>(Normalair-Garrett Ltd)</p>
	Bayonet plug	7	6D/2053	<p>Fitted to mask hoses of certain oxygen masks of the Types P and Q series.</p> <p>(L. Adams Ltd)</p>
	Bayonet socket	7C	6D/3575	<p>Fitted to hose assemblies of personal equipment connectors used with certain masks of the Types P and Q series.</p> <p>Supersedes bayonet socket Mk 7 (6D/2115) having lower mating load characteristic.</p>
	Coupling, half, quick-disconnect, Part No GA 2620		6D/2203119	<p>Identical to bayonet socket Mk 7C.</p> <p>(L. Adams Ltd)</p>
	Bayonet socket	7D	6D/3576	<p>Similar to Mk 7C, but with the addition of a spring clip.</p> <p>Supersedes Mk 7A (6D/2116), having lower mating load characteristic and modified spring clip.</p>
	Coupling, half, quick-disconnect, Part No GA 2630		6D/2203120	<p>Identical to bayonet socket Mk 7D.</p> <p>(L. Adams Ltd)</p>

TABLE 1 (Cont'd)

Item and typical application	Nomenclature	Mk	Ref No	Remarks
	Bayonet socket	7E	6D/3574	Similar to Mk 7C, but fitted with a clothing clip. Supersedes Mk 7B (6D/2758), having lower mating load characteristic.
	Coupling, half, quick-disconnect, Part No GA 2650		6D/2203121	Identical to bayonet socket Mk 7E. (L. Adams Ltd)
	Connector, quick-release, LP plug	1	6D/605	Used in economizer installations and emergency oxygen sets. Attached to mask hose and complementary to the Mk 1 q-r socket. (L. Adams Ltd)
	Connector, quick-release, LP socket	1	6D/606	Complementary to Mk 1 q-r plug. Terminates Mk 5A LP flexible hose from economizer. (L. Adams Ltd)
	Connector, quick-release, LP plug	4	6D/1466	Used in economizer installations on ejection seats. Fixed to the moving rail of the seat, and with the Mk 4 q-r socket, makes the connection between the economizer and the seat. (L. Adams Ltd)
	Connector, quick-release, LP socket	4	6D/1467	Complementary to the Mk 4 q-r plug. Attached to the fixed rail of ejection seat and terminates length of Mk 5A LP hose from the economizer. (L. Adams Ltd)
	Connector, inlet warning, quick-release		6D/2003	Used in demand oxygen installations. Attached to mask hose of Types P1 B and Q1A oxygen masks. Mates with sockets Mk 9 and 10A. (Normalair-Garrett Ltd)

Amendment No. 1 to
AP 107D-0400B-1
(2nd Edition)

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RECORD the incorporation of this amendment in the amendment record.

MINISTRY OF DEFENCE

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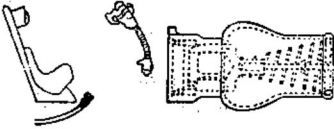
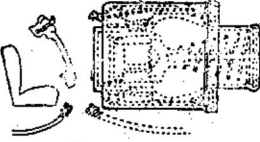
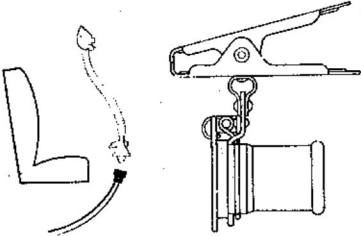
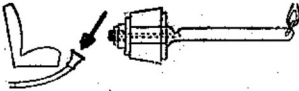
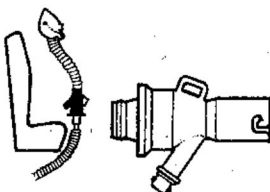
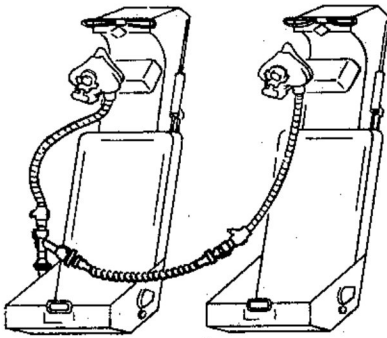
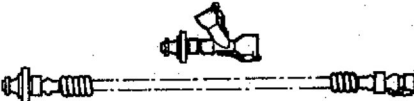
Item and typical application	Nomenclature	Mk	Ref No	Remarks
	Socket, quick-release	9	6D/1652	Used in demand oxygen installations on ejection seats not having a Personal Equipment Connector fitted. Incorporates a shut-off valve which closes when plug is removed. (Normalair-Garrett Ltd)
	Socket, quick-release	10A	6D/1817	Similar to the Mk 9 socket, but incorporates a locking assembly. (Normalair-Garrett Ltd)
	Socket, quick-release c/w with clothing clip		6D/1890	Used in certain transport aircraft. (Normalair-Garrett Ltd)
	Plug, dummy		6D/1764	Used to plug sockets (Ref No 6D/1890) when not in use. (Normalair-Garrett Ltd)
	Quick-release socket adapter		6D/2428	► Enables oxygen masks, Types P2B, Q2A, P6B and Q6 to be used with walk-around set Mk. 4 (Ref. No. 6D/1608) (M L Aviation Ltd)
	Dual-feed coupling		6D/2222	Used in demand oxygen installations and provides an emergency connection for two crew members. (Normalair-Garrett Ltd)
	Extension tube		6D/2223	Used in conjunction with dual feed coupling (Ref No 6D/2222).
	Quick-release socket, Mk 8A		6D/2224	Attached to one end of extension tube. (Normalair-Garrett Ltd)

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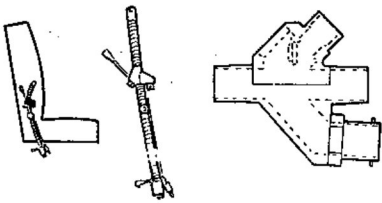
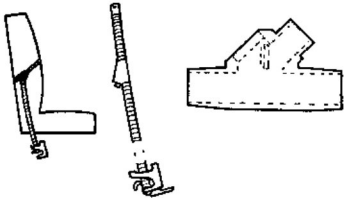
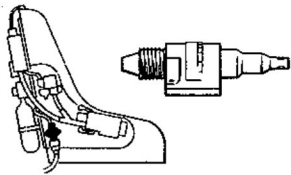
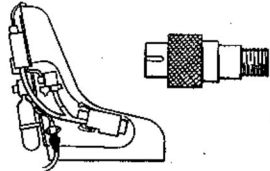
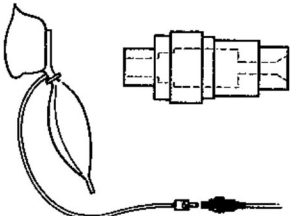
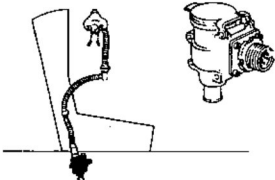

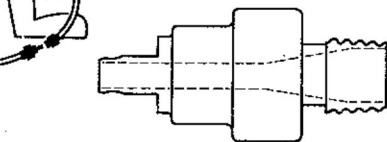

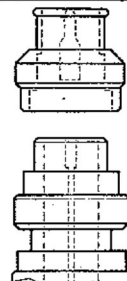

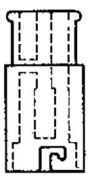

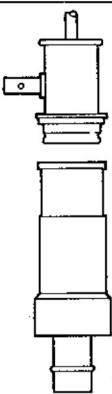
Item and typical application	Nomenclature	Mk	Ref No	Remarks
	Connector, demand emergency oxygen, Type MX 2468-42C		6D/2570	When fitted to a pressure jerkin hose assembly, provides connection for an anti-G suit and emergency oxygen supply to crew members using static seats. (M L Aviation Ltd)
	Connector, demand emergency oxygen, Type MX 2468-41C		6D/2568	When fitted to an oxygen mask hose assembly, provides a connection for emergency oxygen supply to crew members using static seats. (M L Aviation Ltd)
	Quick-disconnect plugs		6D/2791 6D/2248452	Part of seat-mounted regulator group assembly. Mates with quick-disconnect socket (Ref No 6D/2609) Similar to Ref No 6D/2791, but incorporating a non-return valve assembly. (Normalair-Garrett Ltd)
	Quick-disconnect sockets		6D/2609 6D/6323539	Used to connect oxygen supply to seat mounted regulator assembly. Similar to Ref No 6D/2609, but with a metric thread. (Normalair-Garrett Ltd)
	Connection, in-line		6D/2929	Fitted to supply line. Provides attachment for oxygen mask, Type L. Self-sealing. (Walter Kidde Ltd)
	Combined oxygen and mic-tel floor socket		6D/2576	Used in combined oxygen and mic-tel systems, and in conjunction with ejection seat hose assembly Ref No 6D/3643. (Normalair-Garrett Ltd)
	Coupling, personal hose assembly	2	6D/2248249	Fitted to oxygen mask hose assembly, Mk 11 (AP 108F-0904-12). (M L Aviation Ltd)
	Coupling, quick-disconnect	2	6D/2248246	Fitted to aircraft wander lead at rear crew stations of certain aircraft. Used in conjunction with Ref No 6D/2248249. (FPT Industries Ltd)

TABLE 1 (Cont'd)

Item and typical application	Nomenclature	Mk	Ref No	Remarks
 	Coupling, oxygen mask		6D/2245467	Used to connect oxygen mask, Type V1 (AP 108F-0905-12) to miniature oxygen regulator assembly, Type 317A. (L. Adams Ltd)
	Coupling, regulator		6D/2245468	Incorporated in miniature oxygen regulator assembly. Type 317A (AP 107D-0205-12). Used with Ref No 6D/2245467. (L. Adams Ltd)
 	Bayonet socket assembly		6D/2245147	Fitted to oxygen mask Type T1 (AP 108F-0906-12) and oxygen mask, Type V2 (AP 108F-0905-12) (B. O. C. Ltd)
 	Piece, connecting, 3-way, Part No OP18103 or 1231X050	-		Fitted to Mk 7b mask tube assembly (AP 108F-0901-123A) and used to connect the mask tube to the oxygen disconnect warning hose assembly. (Normalair-Garrett Ltd)
	Oxygen disconnect unit Part No 0728100	-		Fitted to the oxygen disconnect warning hose assembly. (Flight Refuelling Ltd)