

Mk 2A Flying Helmet

FOUR SIZES ONLY
INDIVIDUAL FITTING
BY ADJUSTMENT

ACCOMMODATES TYPES P & Q
OXYGEN MASK ADAPTABLE
FOR OTHER TYPES
BY MODIFICATION

THE HELMET IS MADE IN FOUR SIZES

SMALL for head sizes $6\frac{1}{2}$ – $6\frac{7}{8}$ (53–56 cm.)
(R.A.F. Ref. No. 22C/1253128)

MEDIUM for head sizes $6\frac{7}{8}$ – $7\frac{1}{4}$ (56–59 cm.)
(R.A.F. Ref. No. 22C/1253129)

LARGE for head sizes $7\frac{1}{4}$ – $7\frac{5}{8}$ (59–62 cm.)
(R.A.F. Ref. No. 22C/1253130)

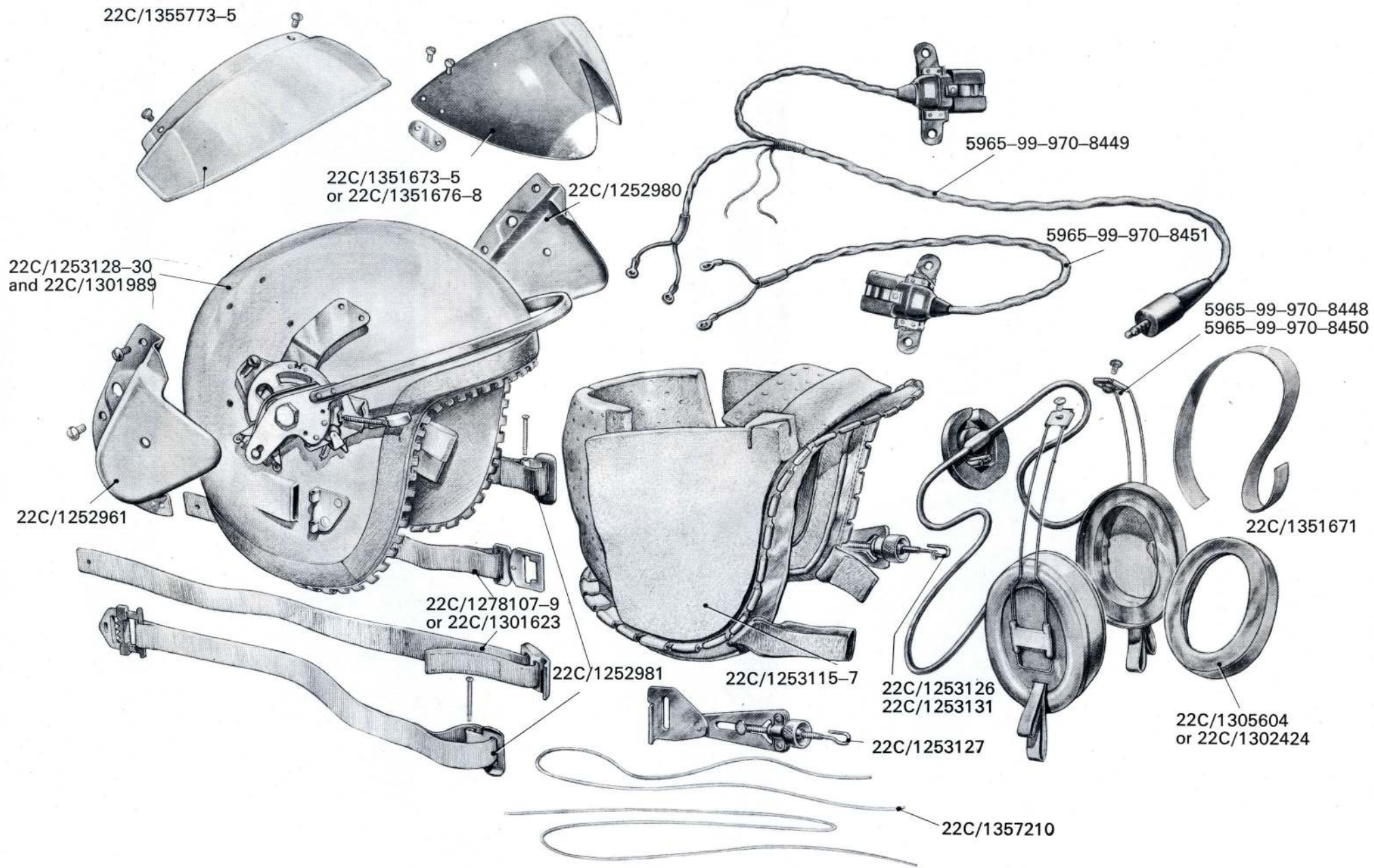
MEDIUM/BROAD $6\frac{7}{8}$ – $7\frac{1}{4}$ (56–59 cm.)
(R.A.F. Ref. No. 22C/1301989)



FLYING HELMETS

and accessories

HELMETS LIMITED *Wheathampstead · Hertfordshire*
Telephone No. 2221-3



HELMET FLYING PROTECTIVE (ONE PIECE) MK. 2A

Stores Ref. No.	Size	Description	Head fitting (approx.)
22C/1253128	Small	Helmet, protective, Mk. 2A complete with automatic visor and carrying bag Mod C1/72	.. 6 $\frac{1}{2}$ -6 $\frac{7}{8}$ (53-56 cm.)
22C/1253129	Medium	Helmet, protective, Mk. 2A complete with automatic visor and carrying bag Mod C1/72	.. 6 $\frac{7}{8}$ -7 $\frac{1}{4}$ (56-59 cm.)
22C/1253130	Large	Helmet, protective, Mk. 2A complete with automatic visor and carrying bag Mod C1/72	.. 7 $\frac{1}{4}$ -7 $\frac{7}{8}$ (59-62 cm.)
22C/1301989	Medium/Broad ..	Helmet, protective, Mk. 2A complete with automatic visor and carrying bag Mod C1/72	.. 6 $\frac{7}{8}$ -7 $\frac{1}{4}$ (56-59 cm.)
22C/1351673	Small	} Visor screen anti-blast, dark tint, part surface dyed, or as Mod Kit WD/16	{ Small 22C/1355197
22C/1351674	Medium		{ Medium 22C/1355198
22C/1351675	Large		{ Large 22C/1355199
22C/1351676	Small	} Visor screen anti-blast, dark tint, fully surface dyed, or as Mod Kit WD/17	{ Small 22C/1355194
22C/1351677	Medium		{ Medium 22C/1355195
22C/1351678	Large		{ Large 22C/1355196
4C/3368		Weight Set Helmet Testing (Visor and Mechanism) Complete in Box (Not illustrated)	.. .. .. .
22C/1305604	(8415-99-130-5604)	Fluid seal for ear capsule, green, as available .. .. .	.. .. .. .
22C/1302424	(8415-99-130-2424)	Fluid seal for ear capsule, grey, as available .. .. .	.. .. .. .
22C/1364959		Forehead sweatband satchel Mod C10/71 (Not illustrated) .. .. .	.. .. .. .
22C/1253115	Small	} Lining Assembly .. .. .	.. .. .. .
22C/1253116	Medium .. ..		.. .. .. .
22C/1253117	Large .. ..		.. .. .. .
22C/1278107	Small	} Chin strap Mod C9/66 (will be withdrawn as Mod C5/71 is introduced) .. ..	.. .. .. .
22C/1278108	Medium .. ..		.. .. .. .
22C/1278109	Large .. ..		.. .. .. .
22C/1301623		Chinstrap Mod C5/71 (One size only) .. .. .	.. .. .. .
22C/1252981		Neck strap .. .. .	.. .. .. .
22C/1355773	Small	} Visor cover (plastic) velveteen lined Mod C1/70 (Not illustrated) .. .. .	.. .. .. .
22C/1355774	Medium .. ..		.. .. .. .
22C/1355775	Large .. ..		.. .. .. .
22C/1252980		Visor end cover, left hand .. .. .	.. .. .. .
22C/1252961		Visor end cover, right hand .. .. .	.. .. .. .
22C/2406		Equippers service kit of sundry small spares (Not illustrated) .. .. .	.. .. .. .
22C/1302469		Carrying bag for helmet (fabric) Mod C1/72 (Not illustrated) .. .. .	.. .. .. .
22C/1253124		Stowage case for helmet, as a spare (not illustrated) including Mod C4/65 (as an extra) .. .. .	.. .. .. .
22C/1253126		Oxygen mask attachment hook assembly, left hand Mod C11/67 .. .. .	.. .. .. .
22C/1253127		Oxygen mask attachment hook assembly, right hand Mod C11/67 .. .. .	.. .. .. .
22C/1253131		Retaining rings, plastic, for oxygen mask attachment hook left hand (Packets of 10) .. .. .	.. .. .. .
22C/1351671		Tape self-adhesive, black P.V.C., $\frac{5}{8}$ in. wide, 36 yd. per roll .. .. .	.. .. .. .
22C/1253132		Cradle Clamp Screws and fibre washers (Not illustrated) (Packets of 10) .. .. .	.. .. .. .
22C/1357210		Nylon lacing cord, 1lb. Cop. .. .. .	.. .. .. .
22C/1351672		Retaining Strap for Mask/Mic Lead - Mod Set C10/66 (Not illustrated) .. .. .	.. .. .. .
22C/1354201		Instrument Flying Visor Type "C" (Not illustrated) .. .. .	.. .. .. .
N.A.T.O. Stock No.			
5965-99-970-8448		Headset electrical (for standard R/T system) .. .. .	.. .. .. .
5965-99-970-8449		Cable assembly, special purpose, branched (for standard R/T system) .. .. .	.. .. .. .
5965-99-970-8450		Headset electrical (for oxy/mic/tel system) .. .. .	.. .. .. .
5965-99-970-8451		Cable assembly, special purpose, branched (for oxy/mic/tel system) .. .. .	.. .. .. .

Mk 2A FLYING HELMET

APPLICATION

This helmet supersedes the Mk. 1A/Type 'G' helmet combination for use by aircrews on similar duties except those regularly concerned with low altitude aircraft (including rotary wing aircraft) not fitted with oxygen equipment for which duties the Mk. 3A or 3B helmet should be worn.

DESCRIPTION

This helmet embodies telephone equipment, oxygen mask attachments, and anti-blast/anti-glare visor. It is made in four sizes and all necessary adjustments are provided for correct individual fitting within the range covered by each of the four sizes. Correct initial selection and adjustment for individual fit is essential in order to obtain optimum comfort and performance. Each helmet is supplied in a carrying bag designed to provide safe storage when not in use. The rigid outer shell of moulded glass fibre resinate is provided with shock absorbing lining of cork and an internal cradle of nylon webbing to minimise the transmitted force and distribute it over as large an area of the head as possible. The soft comfortable padded lining is replaceable and its attachment to the shell forms a windproof seal, which together with the chin strap, visor and oxygen mask, ensures security of the helmet under severe blast conditions. The attachment of lining to shell is so contrived that the lining can be removed either for replacement or for access to the telephone equipment or other interior fittings.

The telephone equipment is of novel design and combines an exceptionally good signal to noise ratio with minimum size and weight. A single miniature telephone No. 13775 feeds the signal via sound tubes to acoustically designed ear capsules with fluid seals. The capsules on an adjustable light spring wire suspension, can be held away from the face when donning the helmet but seal snugly on the head when tensioned by the chin strap and neck strap. Thus the hazard of the usual bulky, metal-cased earphone adjacent to a vulnerable part of the head is eliminated. The telephone is fully tropicalised and is normally supplied wound to give an impedance of 300 ohms and D.C. resistance of 105 ohms, but alternative impedances can be supplied. Two types of cable assembly are available. The 'Long' type is standard and terminates in a short central pigtail and N.A.T.O. type plug 10H/18575. The microphone plug is conveniently situated low down on the left cheek and accepts the standard socket Ref. 10H/14207. The 'Short' type is for use with the oxy/mic/tel system, the input being via a 10H/14206 plug.

The headset, seals, and cable assembly are all replaceable either complete or as separate items. Alternative wiring terminating in PL55 and PL68 plugs can be supplied.

The oxygen mask attachment hooks are designed for use with a chain toggle harness Mk. 5 as on the 'P' and 'Q' type masks. They are fully adjustable, the knurled nut adjusters are immediately behind the attachment hooks and the tension applied is taken by an adjustable counter-pressure strap in the removable lining. Although designed for the 'P' and 'Q' type masks the attachment and adjustment will suit other masks with chain toggle harness.

THE ANTI-GLARE/ANTI-BLAST VISOR

An acrylic screen forms both a blast and an anti-glare visor. Manual operation is by a side pivoted semicircular bar which moves the screen into any selected position, the bar springing back on release to its starting position. The bar is so arranged that it is moved by the descent of the blind on ejection. Under ejection 'g' forces, the screen is locked down automatically. The screen is protected by a frangible shroud which detaches in high wind blast, substantially reducing the drag on helmet and head. The shroud and mechanism covers are detachable when necessary to change a screen. Unless otherwise instructed the helmets will be supplied with visor screens of dark tint, part surface dyed.

OXYGEN MASKS TYPES 'P' & 'Q'

The two types are identical in design and differ only in size of face piece, the 'Q' being smaller than the 'P'. They are designed for pressure breathing at altitudes up to 56,000 ft. depending on the Mask/Regulator/Clothing combination. They incorporate the chain toggle Mk. 5 automatic pressure compensating expiratory valves and tube assembly. In both types two versions of face piece are available 'Normal' and 'Med', the latter being made from a special anti-dermatitic rubber composition. Being more expensive to manufacture and less durable than the normal version the 'Med' version is only issued when prescribed by the appropriate medical authority.

The current variations for use with Type 'G', or Mk. 2 and 2a helmets are:

Ref. No.	
6D/3040 'P' 1B Normal	} Connector-Inlet Warning Ref. 6D/2003.
6D/2343 'Q' 1A Normal	
6D/3041 'P' 1B 'Med'	
6D/2359 'Q' 1A 'Med'	
6D/3042 'P' 2B Normal	} Connector-Mk. 7 Bayonet Plug (mating with P.E.C. Socket or Pressure Jerkin).
6D/2309 'Q' 2A Normal	
6D/3043 'P' 2B 'Med'	
6D/2359 'Q' 2A 'Med'	
6D/2627 'P' 4A Normal	} Oxy/Mic/Tel System. Use in conjunction with Helmet Connector. Pt No. OP.4310 in the case of a type 'G' Helmet or Cable Assembly Short type. N.A.T.O. Stock No. 5965-99-970-8451 in the case of a Mk. 2 or 2a Helmet.
6D/2700 'Q' 4A Normal	
6D/2628 'P' 4A 'Med'	
6D/2701 'Q' 4A 'Med'	
10AH/18	} Microphone Assembly Type 71 complete with connector type 2380. 'P' Masks only.
10AH/12141	} Microphone Connector Type 3858.
N.A.T.O. Ref.	
5965-99-999-2773	} 'Q' Masks only.
5935-99-999-2774	

In addition to the above types of Mask, the following are also suitable for use with either Mk. 2A or Mk. 3B Helmets:

6D/3288 Large	} Oxygen Mask Type H/2.
6D/3289 Medium	
6D/3290 Small	

OXYGEN MASK TUBES & CONNECTIONS

6D/2003 Connector-Inlet Warning for A.13A, 'P' 1A and 'Q' 1A Masks.
A.13A/1 and A.13A/2, 'P' 1A and 'Q' 1A Masks now issued are provided with a warning type connector. This incorporates a more positive locking device and a modified valve which seals the inlet tube unless and until the connection is correctly and securely made. When closed this valve imposes a very noticeable restriction on breathing thus giving a warning that the connection is not engaging properly in the socket. **WARNING**—The 6D/2003 disconnect is intended for use with Mk.9 sockets on ejection seats and Mk. 10A on fixed seats. It may be used with the now obsolete Mk. 7 and Mk. 10 sockets but *not with the Mk.8 socket*, Ref. No. 6D/1621 which has a slightly larger bore.

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