

TYPES 57CM, 57CMR, 57DM and 57DMR

SUMMARY OF DATA

PURPOSE

A high power H.F. A.M. transmitter fitted as a main transmitter in capital ships and cruisers. Types 57CM/CMR are fitted in ships with the C.C.S. system, Types 57DM/DMR in ships with the C.W.S. system.

TYPE OF TRANSMISSION

- Types 57CM/DM - C.W. and M.C.W.
Types 57CMR/DMR - C.W., M.C.W. and Voice

FREQUENCY RANGE

3 - 20 Mc/s

MAJOR UNITS

- | | | | |
|----------------|-------------------------------------|----------------|---------------------------------|
| 1. Patt. W290A | Panel 3PF Controlling | 5. Patt. W803C | Panel 3PG Output |
| 2. Patt. W291A | Panel 3PF Supply | 6. Patt. W804E | Panel 3PG M.O. and Inter. Stage |
| 3. Patt. W292A | Panel 3PF Main Rectifying | 7. Patt. W805A | Panel 3PG Inter. Rectifying |
| 4. Patt. W293B | Stand for Panel 3PF Main Rectifying | 8. Patt. W806A | Panel 3PG Trunk Sealing |

The eight panels are mounted together and form the front of the transmitter.

PHYSICAL DATA

Space occupied by the transmitter panels and enclosure is approximately 9' x 5'.

The weight of the complete transmitter is 42 cwt.

The weight of the spare stores is 6 cwt.

BRIEF TECHNICAL DESCRIPTION

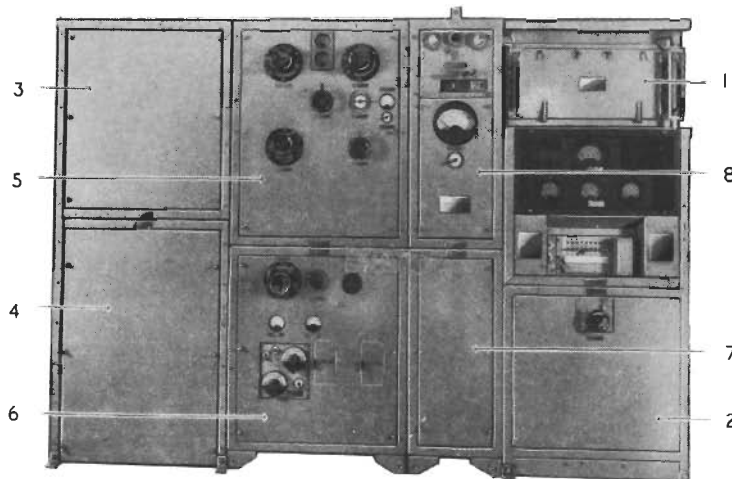
The set is a partial crystal controlled master oscillator using variable frequency crystal control, mixer (Trebler when required), intermediate and output stages, the last named being inductively coupled to a unipole aerial system. No provision is made for self excitation.

The transmitter is capable of hand or automatic keying the latter up to 150 words per minute. A Monitor Unit is provided to operate a Check Undulator in ships which are fitted for high speed working.

No provision is made for "listening through".

Provision is made for change over to C.W., M.C.W. or Voice and selection of high, medium or low power operation by means of contactors.

Power in aerial - 1.5 - 3.0 kW (full power C.W.)
400 - 800 watts (full power M.C.W. or Voice).



TYPE 57 DMR - FRONT PANEL VIEW

POWER REQUIREMENTS

Type 57DM/DMR

Supply is derived from the 400 volts 50 c/s 3 phase 12 kW bus bars of the C.W.S. distribution board in the same room.

Type 57CM/CMR

Supply is derived from the 400 volts 50 c/s 3 phase 12 kW bus bars of the Board 2BE supply from 12 kW Motor Alternators.

AERIAL SYSTEM

Unipole.

REMARKS

Type 57DM/DMR is controlled by the C.W.S. system. When fitted with Control Outfits KHA-KHZ series Patt. W209A Panel 3PF Controlling is modified.

HANDBOOK

B.R.1623

ESTABLISHMENT LIST

T.53

INSTALLATION SPECIFICATION

9573, B.703 (Type 57DMR with Control Outfits KHA-KHZ)

THE 57 SERIES TRANSMITTER

Very much a set associated with large or heavy ships.

The Cruisers *Australia* and *Canberra* got the Type 57.

The Types 57C [**CCS - Central Control System**] and the 57CR [**CCS + R/T**] were earmarked for the *Belfast, Courageous, Edinburgh, Fiji, Furious, Greenwich, Kenya, London, Maidstone, Mauritius, Nevassa, Nigeria, Queen Elizabeth, Renown, Trinidad and Valiant*.

The other, Types 57D [**CWS - Central W/T System**], 57DR [**CWS + R/T**], and 57X [**1st experimental set**] were distributed to *Duke of York, Adamant, Ark Royal, Beatty Ceylon, Charybdis, Cleopatra, Formidable, Gambia, Hecla, Hood, Illustrious, Implacable, Indomitable, Jamaica, Jellicoe, King George V, Lion, Nelson, Prince of Wales, Rodney, Scylla, Temeraire, Tyne, Uganda, Unicorn and Victorious*.