Type 1003(1)(2)(3) is a submarine radar designed to give combined surface and air warning, together with an accurate ranging facility.

BRIEF DESCRIPTION

Types 1003(1)(2)(3) consist of the three major equipments here illustrated, together with Aerial Outfit A2M and Aerial Outfit AKUD: Either of the two panels may be connected to one of the transmitters in Panel 77A (or 77A/A) at any one time and Sector Selection is available with Aerial Outfit AKU(4).

Aerial Outfit A2M(1) is fitted in Type 1003(1), and Aerial Outfit A2M(2) in Types 1003(2) and 1003(3). Types 1003(1) and 1003(2) can be fitted with component equipments having either single or dual voltage conditioning heaters, but Type 1003(3) will accept only those component equipments having dual voltage conditioning heaters.

Two PPI displays are fitted and used with Aerial Outfit AKUD(1), Display Outfit J73 is fitted in the Radar Office and Display Outfit J74 in the Control Room. HMD (DIRECTIONFINDER) will, however, be fitted until first refit with Display Outfit J73 in the Radar Office and Display Outfit JPSM in the Control Room.

An Ancam display (Display Outfit JT1) is used with the ranging aerial, A2M.
RESTRICTED

ELECTRICAL CHARACTERISTICS

Transmitter Frequency : 9500 MHz ± 50 MHz
Power Output : 20 W nominal
Pulse Repetition Frequency : 400–500 Hz or 2000–2500 Hz
Pulse Duration : 1 µs or 0.2 µs
Intermediate Frequency : 30 MHz
Receiver Bandwidth : 2 MHz at −3 dB (Narrow) 8 MHz at −3 dB (Wide)

MAJOR UNITS

DESCRIPTION

Transmitter-Receiver 77A, 77A/A
Cabinet Assembly Design 62, Control
Cabinet Assembly Design 64, Rectifier
Cabinet Assembly Design 22, Display
Cabinet Assembly Design 27, Range Calibrating
Cabinet Assembly Design 26, Rectifying
Cabinet Indicator
Generator Slew
Mixer Unit
Indicator Plan Position
Range and Bearing Unit
Range and Bearing Unit
Cabinet Control Power Supply
Power Supply
Servo Amplifier Mark 4 A.C.

PHYSICAL DATA

<table>
<thead>
<tr>
<th>Panel</th>
<th>Height (cm)</th>
<th>Width (cm)</th>
<th>Depth (cm)</th>
<th>Weight (Kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>77A/A</td>
<td>158</td>
<td>57</td>
<td>61</td>
<td>408</td>
</tr>
<tr>
<td>1</td>
<td>62.5 (2.5 in)</td>
<td>18.5 (0.7 in)</td>
<td>24 (in)</td>
<td>600 (lb)</td>
</tr>
<tr>
<td>1J</td>
<td>47 (1.9 in)</td>
<td>66.6 (2.6 in)</td>
<td>66 (in)</td>
<td>337.5 (lb)</td>
</tr>
<tr>
<td>3M</td>
<td>68.6 (2.7 in)</td>
<td>86.4 (3.4 in)</td>
<td>60 (in)</td>
<td>230 (Kg)</td>
</tr>
<tr>
<td>3S</td>
<td>46.3 (1.8 in)</td>
<td>56.9 (2.2 in)</td>
<td>26 (in)</td>
<td>207 (lb)</td>
</tr>
<tr>
<td>4S</td>
<td>68.6 (2.7 in)</td>
<td>86.4 (3.4 in)</td>
<td>26 (in)</td>
<td>478 (lb)</td>
</tr>
</tbody>
</table>

POWER REQUIREMENTS

180 V @ 50 Hz or 200 V @ 400 Hz
230 V @ 50 Hz
15 V @ 60 Hz
15 V @ 400 Hz, one phase
15 V @ 60 Hz, three phase
220 V @ 60 Hz
4 V @ 60 Hz

ASSOCIATED DISPLAY OUTFITS

JT1, JP1/A/S

ASSOCIATED AERIAL OUTFITS

AKU(4), AZM(1)(2)

HANDBOOK

BR 2945

RESTRICTED