

1,000 volts; and one ohm-meter capable of measuring resistance from 10 ohm to 20,000 ohm:

Provided that a measuring instrument in which the requirements for an ammeter, a voltmeter and an ohm-meter hereinbefore specified are combined may be substituted for those instruments.

#### *Spare Parts and Spare Equipment*

One set of brushes for each machine installed.

Three cartridges for each cartridge fuse in use.

One main aerial made up (wire only).

One safety loop for aerial.

Fifty percent of the number of insulators in use (excluding lead-in insulators).

One hundred percent of the number of shackles and thimbles in use.

Twelve bulldog grips to suit the aerial wire.

One set of headphones and leads (with plugs if used) for each type of headphone and lead in use.

One valve for each two of the first 6 of each type of valve in use, and then one valve for each additional three valves or part of three valves of that type in use.

Three vibrators for each type of vibrator in use.

One indicator lamp for each indicator lamp in use.

One emergency lamp.

One charging mat if a mat-type charging unit is in use.

#### *Miscellaneous Items*

120 gm. petroleum jelly.

Three sheets glass paper.

230 gm. resin-cored solder.

120 gm. insulating tape.

60 gm. lubricating oil for general purposes.

\*500 ml. lubricating oil.

230 gm. grease suitable for machine in use.

Ten m. of each rating of fuse wire, 1 ampere, 5 ampere, and 15 ampere.

One length of aerial wire equal to the length of the reserve aerial plus 3 m. (uncut).

120 gm. copper binding wire.

Six m. flexible wire (5 amperes) for adjustable connections.

120 gm. trichloroethylene for contact cleaning.

## **Part II**

### **Radiotelephone Ships**

#### *Tools*

One 15 cm. smooth file.

One jointing knife.

†One insulated screwdriver, not less than 20 cm. in length, with 6 mm. blade.

†One spanner adjustable to 25 mm. gap.

One hacksaw and blades.

One pair of 15 cm. long-nosed pliers with sidecutters.

#### *Measuring Instruments*

One hydrometer.

#### *Spare Parts, and Spare Equipment*

Fifty percent of the number of insulators in use (excluding lead-in insulators).

#### *Miscellaneous Items*

Ten m. of each rating of fuse wire, 1 ampere, 5 ampere, and 15 ampere. Where cartridges fuses are fitted, 6 spare fuses of suitable rating for each fuse position.

\*This item need only be supplied where a machine lubricated with oil forms part of the installation.

†Where special nuts and screws are used for fastening, suitable tools shall be provided.

## **SIXTH SCHEDULE**

### **Radiotelegraph Auto-alarm Equipment**

**1. Scope of Specification**—This specification covers the

minimum performance of a radiotelegraph automatic-alarm equipment for use in ships compulsorily fitted for radiotelegraphy and, as such, may form the basis for type-testing.

**2. General**—(1) The function of the radiotelegraph automatic-alarm equipment is to give audible warning of the receipt of the radio telegraph alarm-signal transmitted on a frequency of 500 kHz. The radiotelegraph alarm-signal consists of a series of 12 dashes sent in one minute, the duration of each dash being four seconds, and the duration of the interval between consecutive dashes one second.

(2) In the case of equipments which are to be operated from a battery of secondary cells, the requirements of this specification shall be met for a range of supply voltage variation of plus 5 percent and minus 10 percent relative to the nominal battery voltage.

In the case of equipments which are operated from a ship's main supply, the equipments shall satisfy the requirements of this specification for a range of supply voltage variation of plus and minus 10 percent relative to the nominal mains voltage.

(3) All parts and wiring in which the direct or alternating voltages or both (other than radio-frequency voltages) combine to give an instantaneous voltage greater than 250 volts shall be protected against accidental access, and shall be isolated automatically from all sources of electrical energy when the means of protection are removed.

All parts and wiring in which the direct or alternating voltages or both (other than radio-frequency voltages) combine to give an instantaneous voltage greater than 50 volts shall be protected against accidental access.

(4) The equipment shall not cause the ship's mains to be earthed.

**3. Climatic and Durability Tests**—Except where otherwise stated, the equipment shall meet the requirements of this specification when tested under the conditions specified in the "Climatic and Durability Testing of Marine Radio Equipment" applicable to Class B equipment.

**4. Alarms**—(1) An audible alarm system shall be associated with the equipment. There shall be provision to operate simultaneously a bell on the bridge, a bell in the radio room, and a bell in the radio officer's cabin.

(2) The power supply for the audible alarms shall be the ship's reserve source of energy. The power supply circuit for the alarms shall be connected via a fuse or fuses used only for this purpose to an unfused circuit taken from the reserve source of energy, and shall be such that the audible alarms circuit is not affected should any fuse other than its own fuse or fuses be ruptured.

(3) The audible alarms shall be actuated should an alarm signal be correctly registered (see clause 6 (2) of this Schedule).

(4) (a) The audible alarms shall be actuated within 15 seconds of a sustained failure of the principal direct current supply voltage, but shall not be actuated should this voltage fail for a period shorter than three seconds:

(b) Where equipments incorporate a vibrator or vibrators, the audible alarms shall be actuated within 15 seconds of the sustained failure of the output of any vibrator, but shall not be actuated should this output fail for a period shorter than three seconds:

(c) Where equipments incorporate directly heated valves, the audible alarms shall be actuated within 15 seconds of a sustained disconnection in the circuits of the filaments of the valves, but shall not be actuated should this disconnection occur for a period shorter than three seconds. However, where the filaments of these valves are energised directly from a battery, the audible alarms shall be actuated within 15 seconds of a disconnection in the circuits of their filaments:

(d) Where a selector unit incorporates a continuously rotating mechanism, the audible alarms shall be actuated