

Boat Safety Scheme

Part 4

Electrically propelled boats

Electrically propelled boats

Key Changes..

- Reversing from steering position
- Master Switch operable from steering position
- Charging lead 3 core flexible
- Battery charger over 2KW output requires mechanical ventilation

Electrically propelled boats

Standard 4.1

The installation shall comply with the requirements of part 3 of these standards insofar as they are applicable, and in all cases with the appropriate British Standards and with the Institution of Electrical Engineers (IEE) regulations for the Electrical and Electronic Equipment of Ships as appropriate to the size of the installation

Electrically propelled boats 4.1

Carry out checks required by Part 3 and if any fault recorded is applicable to the electrical propulsion installation (other than 3.5.4, 3.5.6, 3.6.2, 3.7.1, 3.7.2, 3.7.3 for a boat powered solely by batteries) a fault is to be recorded at 4.1.1

Electrically propelled boats 4.1

If any fault recorded in the Boat Safety standards (3.2, 3.7, 4.6) is applicable to the electrical propulsion installation a fault is to be recorded at 4.1.2

Electrically propelled boats 4.1

Record a fault if any fault recorded at 3.1.1 to 3.1.8 is applicable to an electrical propulsion installation, or a fault is recorded at 4.2.1, 4.2.2 and 4.8.1

Electrically propelled boats 4.4

Vessels shall have an effective means of reversing operable from the steering position.

Reversing is usually achieved by changing the direction of the current through electro-magnetic field in the motor which causes the rotor to turn in the opposite direction. The motor speed controller is usually provided with a reverse lever which changes the connections for the electro-magnetic field so the motor changes direction of rotation. This is a satisfactory method of obtaining reverse

Electrically propelled boats 4.5

A heavy duty switch is to be fitted which is:

- manually operated, and;
- capable of cutting off the supply to the motor, and;
- operable from every steering position

Electrically propelled boats 4.5

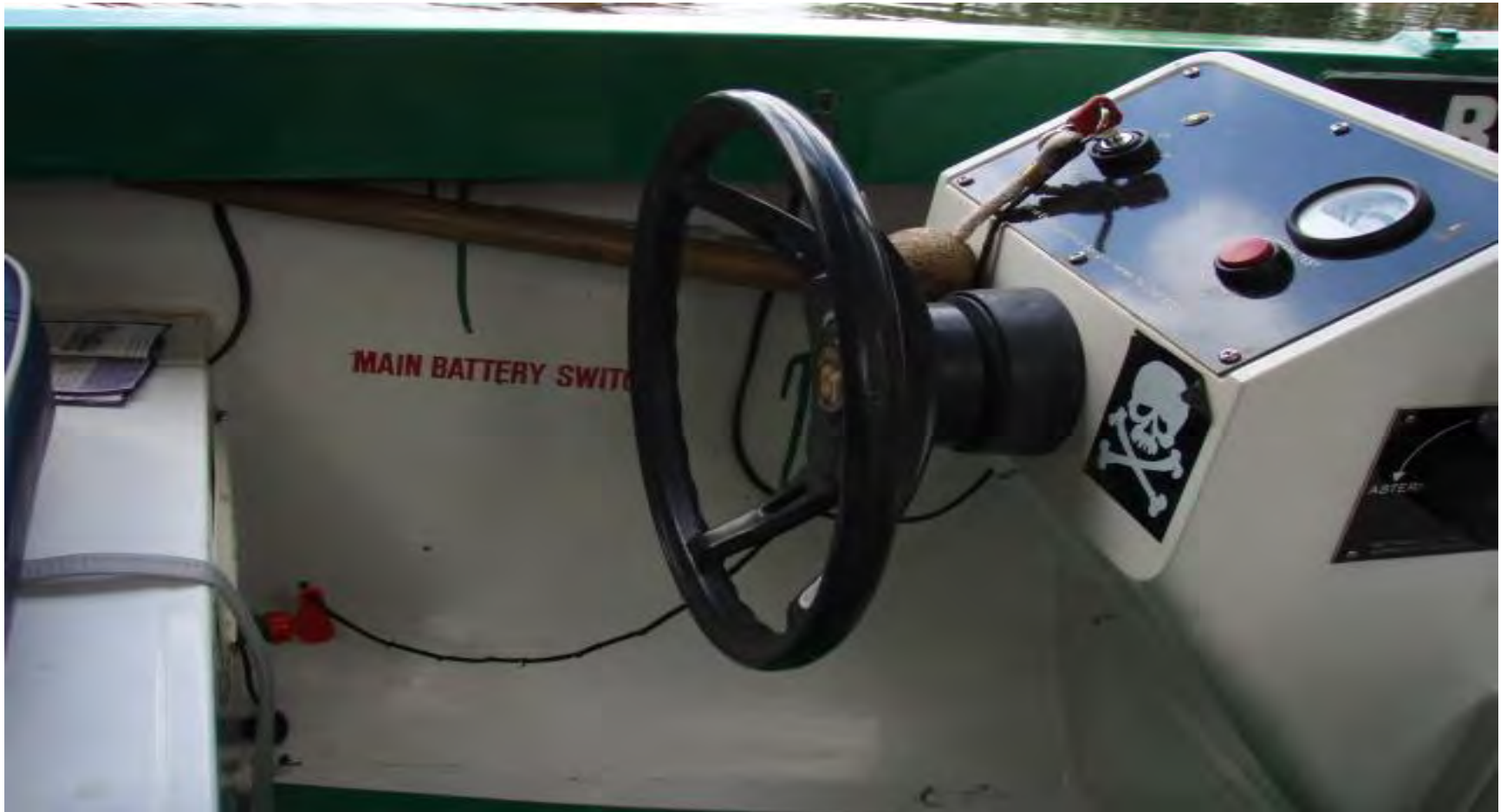
MANUAL OPERATION is defined as the need for someone to do something to operate a switch,

It could be a direct action switch or a remotely operated mechanical or electrical switch providing the operation of the switch was manual which would indicate the use of a key.

Automatic operation activated by a sensing device etc is not allowed.

A speed controller with an “OFF” position is not acceptable because it is not direct action and is not totally reliable in an emergency

Electrically propelled boats 4.5



Additional Information

Battery Installations – IEE Regulations

These requirements are covered by the following parts of the Boat Safety Standards:

Requirement	Boat Safety Scheme
Stowage	3.1.1
Ventilation	3.1.2 and 4.2.2
Battery Covers	3.1.3
Location	3.1.4 and 3.1.8

Electrically propelled boats 4.6

The battery charger on board is to be connected to the charging point ashore with a three-core flexible cable which is to be of:

- adequate current carrying capacity
- suitable construction and grade

The charging plug is to be of a splash proof category complying with BS EN 60309 Part 2

Cables with solid conductors are not classed as 3-core flexible cables for the purpose of this standard

Electrically propelled boats 4.7

The battery charging panel on board is to:

- be adequately ventilated
- incorporate a positive switch
- be provided with a charging indicator light

The battery charging panel comprises the whole of the battery charger installation

Electrically propelled boats 4.7



Electrically propelled boats

Review and Discuss

Boat Safety Scheme

End of Part four

Electrically propelled boats