

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

16 NOV 1936

Received at London Office

Date of writing Report 5th Nov. 1936 When handed in at Local Office 14 NOV. 1936 Port of SUNDERLAND

No. in Survey held at Sunderland Date, First Survey 2nd Sept. Last Survey 4th Nov. 1936  
Reg. Book. Suph (Number of Visits...7.....)

90180 on the S. S. "Springwave" Tons { Gross 1178  
Net 655

Built at Sunderland By whom built Short, Bros Ltd Yard No. 447 When built 1926

Owners Springwell Shipping Co Ltd Port belonging to London

Electric Light Installation fitted by Henry The Sunderland Docking Co Ltd Contract No. 447 When fitted 1926

Is the Vessel fitted for carrying Petroleum in bulk no.

System of Distribution Bottle wire.

Pressure of supply for Lighting 110 ✓ volts, Heating — volts, Power — volts.

Direct or Alternating Current, Lighting Direct / Power —

If alternating current system, state frequency of periods per second —

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes ✓

Generators, do they comply with the requirements regarding temperature rise Yes ✓, are they compound wound Yes ✓

are they over compounded 5 per cent. Yes ✓, if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel —, is an adjustable regulating resistance fitted in series with each shunt field Yes ✓

Have certificates of test results for machines under 100 kw. been submitted and approved Yes ✓

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing —

Are all terminals accessible, clearly marked, and furnished with sockets Yes ✓, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes ✓

Are the lubricating arrangements of the generators as per Rule Yes ✓

Position of Generators Engine room starboard side. ✓, is the ventilation in way of the generators satisfactory Yes ✓

are they clear of all inflammable material Yes ✓ if situated near unprotected

woodwork or other combustible material, state distance of same horizontally from or vertically above the generators — and —

are the generators protected from mechanical injury and damage from water, steam or oil Yes ✓ are their axes of rotation fore and aft Yes ✓

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes ✓ are the prime movers and their respective generators in metallic contact Yes ✓

Main Switch Boards, where placed Engine room starboard side.

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard —

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes ✓, are they protected from mechanical injury and damage from water, steam or oil Yes ✓

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards — and —

are they constructed wholly of durable, non-ignitable non-absorbent materials Yes ✓

is all insulation of high dielectric strength and of permanently high insulation resistance Yes ✓

is it of an approved type Yes ✓, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes ✓

is the non-hygroscopic insulating material of an approved type Yes ✓, and is the frame effectively earthed Yes ✓

Are the fittings as per Rule regarding:— spacing or shielding of live parts Yes ✓

accessibility of all parts Yes ✓, absence of fuses on back of board Yes ✓, temperature rise of omnibus bars Yes ✓

individual fuses to voltmeter, pilot or earth lamp Yes ✓, are moving parts of switches alive in the "off" position no

are all screws and nuts securing connections effectively locked Yes ✓ are any fuses fitted on the live side of switches no

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches D. P. Switch 10P fuses on dynamo mains. SP switch 10P fuses on each outgoing circuit

Are turbine driven generators fitted with emergency trip switch as per rule — Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material —

Instruments on main switchboard 1 ammeter 1

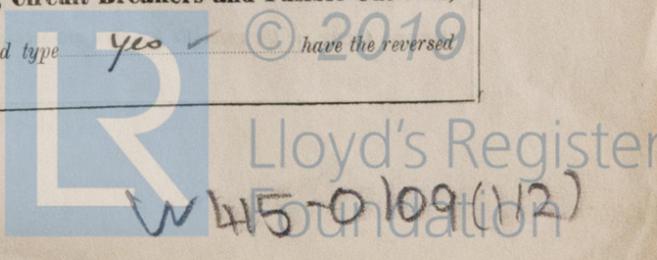
voltmeter — synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection —

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system —

Switches, Circuit Breakers and Fusible Cut-outs, E lamps coupled to E through switches & fuses

do these comply with the requirements of the Rules Yes ✓ are the fusible cutouts of an approved type Yes ✓

have the reversed —





All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

*10* *Sunderland Forge & Eng Co Ltd.*  
*A. S. Gurney*

Electrical Engineers.

Date *9-11-1936*

COMPASSES.

Distance between electric generators or motors and standard compass *150 feet*

Distance between electric generators or motors and steering compass *140 feet.*

The nearest cables to the compasses are as follows:—

A cable carrying *.25* Ampères *on the* ~~feet from~~ standard compass *10* feet from steering compass.

A cable carrying *.25* Ampères *10* feet from standard compass *on the* ~~feet from~~ steering compass.

A cable carrying \_\_\_\_\_ Ampères \_\_\_\_\_ feet from standard compass \_\_\_\_\_ feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power *yes*

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted *yes*

The maximum deviation due to electric currents was found to be *NIL* degrees on *all* courses in the case of the standard

compass, and *NIL* degrees on *all* courses in the case of the steering compass.

FOR SHIP BROTHERS, LIMITED.

*Ernest W. Shock*  
DIRECTOR.

Builder's Signature.

Date *12/11-36*

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *S.S. Springood.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The above inst<sup>n</sup> has been fitted out under special survey. The materials used & workmanship are good. On completion the dynamo, governor, main board, fuses, cables & fittings were examined & stated satisfactory & suitable for a classed vessel.*)

*W/ed*

*YRm*

*17.11.36*

Total Capacity of Generators *5* Kilowatts.

The amount of Fee ... £ *5* : - : *6 Nov 19.36*

Travelling Expenses (if any) £ : : *7 Nov 19.36*

*W.T. Badger & Sauterson*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 20 NOV 1936*

Assigned *See Machy's Report.*

*FRI. 4 DEC 1936*

2m 5.34. Transfer. The Surveyors are requested not to write on or below the space for Committee's Minute.



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