

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

7 AUG 1936

Date of writing Report _____ When handed in at Local Office 5 AUG 1936 Port of NEWCASTLE ON TYNE
SUNDERLAND
 No. in Survey held at Sunderland Date, First Survey 10/6/36 Last Survey 24/7/1936
 Reg. Book. Suff. (Number of Visits.....6.....)
 90155. on the S.S. "Springwood" Tons { Gross 1177
 Net 657
 Built at Sunderland By whom built Short, Brod Ltd Yard No. 446 When built 1936
 Owners Springwell Shipping Co Ltd Port belonging to London
 Electric Light Installation fitted by The Sunderland Forge & Eng Co Ltd Contract No. 446 When fitted 1936
 Is the Vessel fitted for carrying Petroleum in bulk _____

System of Distribution Double 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

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.

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 micanite 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.S + fuses on dynamo mains. D.P. fuses to D.P. switch on each outgoing circuit.

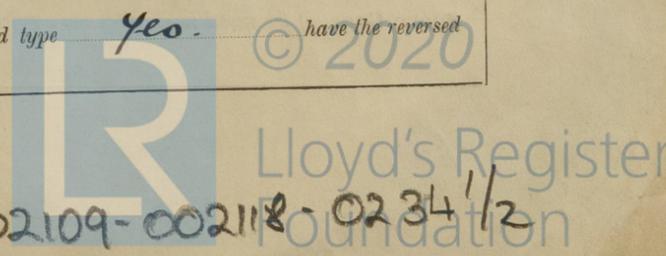
Are turbine driven generators fitted with emergency trip switch as per rule _____ Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material _____

Instruments on main switchboard _____ ammeters _____ voltmeters _____

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 E lamps coupled to E through SP switches & fuses

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes are the fusible cutouts of an approved type Yes.



PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	1	5	110	45	450	Steam Engine		
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR	1	.1	19	.083	45	118	12	V.I.R.	LC+B.
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER } MOTOR GENERATOR...									
ENGINE ROOM... ..	1	.007	7	.036	5.1	24	15	50	LCA+B.
BOILER ROOM... ..									
AUXILIARY SWITCHBOARDS									
Navigation	1	.007	7	.036	3.1	24	185	50	N.R.B in pipe
Accommodation Midships	1	.007	7	.036	11.6	24	160	50	50
" Engineers	1	.007	7	.036	12.5	24	80	50	50
WIRELESS									
SEARCHLIGHT									
MASTHEAD LIGHT	1	.0015	1	.044	.4	4.1	150	50	50
SIDE LIGHTS	1	.0015	1	.044	.4	4.1	30	50	50
COMPASS LIGHTS	1	.0015	1	.044	.25	4.1	20	50	N.R+B clipped up
Skp. POOP LIGHTS	1	.0015	1	.044	.4	4.1	200	50	50
CARGO LIGHTS	1	.003	1	.064	5.3	12.9	120	50	N.R+B in pipe
ARC LAMPS									
HEATERS									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP										
MAIN BILGE LINE PUMPS										
GENERAL SERVICE PUMP										
EMERGENCY BILGE PUMP										
SANITARY PUMP										
CIRC. SEA WATER PUMPS										
CIRC. FRESH WATER PUMPS... ..										
AIR COMPRESSOR										
FRESH WATER PUMP										
ENGINE TURNING GEAR... ..										
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR—										
(a) MOTOR GENERATOR... ..										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FANS										

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.

No. ¹⁰⁰⁰ Sunderland Forge & Bolted.
A. J. Gurney.

Electrical Engineers.

Date 27-7-1936

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 course in the case of the standard

compass, and nil degrees on all course in the case of the steering compass.

FOR SHOOT BROTHERS, LIMITED:

Ernest Wood

Builder's Signature.

Date July 28-1936

DIRECTOR

Is this installation a duplicate of a previous case Yes. If so, state name of vessel S.S. "Springweat"

General Remarks (State quality of workmanship, opinions as to class, &c.) The above instⁿ has been fitted out under special survey. The materials used + workmanship are good. On completion the dynamo, governor, main board, fuses, cables + fittings have been tested + examined + found suitable for a classed vessel.

Noted

W.R.M.

10.8.36

Total Capacity of Generators 5 Kilowatts.

The amount of Fee ... £ 5 : 0 : 24 July 1936

Travelling Expenses (if any) £ : : 25 July 1936 W.R.M.

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

Committee's Minute TUE. 11 AUG 1936

Assigned

See Sld JE 31880

2m.53. Transfer. The Surveys are requested not to write on or below the space for Committee's Minute.



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