

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

21 AUG 1930

Date of writing Report 9.9.30 When handed in at Local Office 20 AUG. 1930 Port of SUNDERLAND
 No. in Survey held at SUNDERLAND Date, First Survey July 8 Last Survey 7.8.1930
 Reg. Book. 92418 on the S.S. SEA RAMBLER Tons { Gross 2327
 Net 1374
 Built at SUNDERLAND By whom built SWAN HUNTER & W.R. Yard No. 1449 When built 1930
 Owners DOVER NAV. CO LTD Port belonging to DOVER
 Electric Light Installation fitted by MESSRS FALCONER CROSS & CO. Contract No. 1449 When fitted 1930
 Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution Double wiresPressure of supply for Lighting 110 volts, Heating volts, Power volts.Direct or Alternating Current, Lighting 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 YESGenerators, do they comply with the requirements regarding rating YES, are they compound wound YESare 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 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 YESPosition of Generators ENGINE ROOM STARBOARDis the ventilation in way of the generators satisfactory YES, are they clear of all inflammable material YESif 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 YESare their axes of rotation fore and aft YESEarthing, are the bedplates and frames of the generating plant efficiently earthed YES are the prime movers and their respective generators in metallic contact YESMain Switch Boards, where placed ENGINE ROOM THWATSHIP BULKHEAD AFT END.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 YESSwitchboards, are they placed in accessible positions, free from inflammable gases and acid fumes YESare 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, if semi-insulating material is used, are all conducting parts insulated from the slabwith mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework YESand is the frame effectively earthed YES Are the fittings as per Rule regarding:— spacing or shielding of live partsYES, accessibility of all parts YES, absence of fuses on back of board YES, proportion of omnibusbars YES, individual fuses to voltmeter, pilot or earth lamp YES, connections of switches YESMain Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches DOUBLE-POLE

SWITCHES AND FUSES ON DYNAMO MAINS AND ALL OUT. GOING CIRCUITS

Instruments on main switchboard ONE ammeters ONE voltmeters synchronising device for paralleling purposes.Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system EARTH LAMPSCOUPLED TO EARTH THROUGH SWITCHES AND FUSESSwitches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YESJoint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule YES

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Lloyd's Register

W463-0218(1/2)

Cables: Single, twin, concentric, or multicore. SINGLE are the cables insulated and protected as per Tables IV or V of the Rules. YES

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 4 VOLTS

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.01 square inch and above provided with soldering sockets YES

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage YES

Support and Protection of Cables, state how the cables are supported and protected LEAD COVERED AND ARMoured CLIPPED TO UNDERSIDE OF DECK IN CARGO SPACE AND LEAD COVERED IN ACCOMMODATION

If cables are run in wood casings, are the casings and caps secured by screws YES, are the cap screws of brass YES, are the cables run in separate grooves YES. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII YES

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements

Joints in Cables, state if any, and how made, insulated, and protected NONE

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands YES

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed YES state the material of which the bushes are made FIBRE

Earthing Connections, state what earthing connections are fitted and their respective sectional areas

are their connections made as per Rule YES

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule YES

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven

Navigation Lamps, are these separately wired YES, controlled by separate switch and separate fuses YES, are the fuses double pole YES, are the switches and fuses grouped in a position accessible only to the officers on watch YES, has each navigation lamp an automatic indicator as per Rule YES

Secondary Batteries, are they constructed and fitted as per Rule

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight YES, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected NO, are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected NO, how are the cables led CLIPPED DIRECT TO UNDERSIDE OF DECK THROUGH HOLDS AND TWEEN DECKS where are the controlling switches situated ADJACENT TO DISTRIBUTION BOXES OR TO LIGHTS

Searchlight Lamps, No. of 1, whether fixed or portable YES, are their fittings as per Rule

Arc Lamps, other than searchlight lamps, No. of 1, are their live parts insulated from the frame or case YES, are their fittings as per Rule

Motors, are their working parts readily accessible YES, are the coils self-contained and readily removable for replacement YES, are the brushes, brush holders, terminals and lubricating arrangements as per Rule YES, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material YES, are they protected from mechanical injury and damage from water, steam or oil YES, are their axes of rotation fore and aft YES, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type YES, if not of this type, state distance of the combustible material horizontally or vertically above the motors 18 INCHES and

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office

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	9.5	110	68	400	SINGLE CYLINDER OPEN TYPE				
AUXILIARY ...										
EMERGENCY ...										
ROTARY TRANSFORMER										
GENERATOR, LIGHTING AND HEATING CONDUCTORS.										
DESCRIPTION.	No. per Pole.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		Total Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.				
MAIN GENERATOR ...	2	.06	19	.064	68	83.	26	V I R	LEAD COVERED IN PIPE	
EQUALISER CONNECTIONS ...										
AUXILIARY GENERATOR ...										
EMERGENCY GENERATOR ...										
ROTARY TRANSFORMER MOTOR GENERATOR ...										
ENGINE ROOM ...	2	.01046	7	.044	8.0	31	30	V I R	LEAD COVERED & ARMoured	
BOILER ROOM ...										
AUXILIARY SWITCHBOARDS ...										
ACCOMMODATION ...										
SALOON	2	.01046	7	.044	14.0	31	180	V I R	LEAD COVERED & ARMoured	
CREW	2	.00701	7	.036	6.0	24	320	"	"	
WIRELESS ...										
SEARCHLIGHT ...	2	.00152	1	.044	.6	6.1	330	V. I. R	" "	
MASTHEAD LIGHT ...	2	.00152	1	.044	.6	6.1	50	V. I. R	" "	
SIDE LIGHTS ...	2	.00152	1	.044	.6	6.1	30	V. I. R	" "	
COMPASS LIGHTS ...	2	.00152	1	.044	.3	6.1	360	V. I. R	" "	
POOP LIGHTS ...	2	.00299	3	.036	.6	12.0	80	V. I. R	" "	
CARGO LIGHTS ...										
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 Effective 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.
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
The foregoing is a correct description.

For FALCONAR, CROSS & Co. LTD.

Electrical Engineers.

Date Aug. 12. 1930.

COMPASSES.

Distance between electric generators or motors and standard compass

95'

Distance between electric generators or motors and steering compass

105'

The nearest cables to the compasses are as follows:—

A cable carrying .3 Ampères ON THE feet from standard compass 8 feet from steering compass.

A cable carrying .3 Ampères 8 feet from standard compass feet from steering compass.

A cable carrying .7 Ampères 9 feet from standard compass 11 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 EACH course in the case of the standard compass, and NIL degrees on EACH course in the case of the steering compass.

FOR
SWAN, HUNTER & WIGHAM RICHARDSON LTD
SUNDERLAND.

Builder's Signature.

Date 16. 8. 30

Is this installation a duplicate of a previous case No. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

This installation has been tested on board under special survey. Tested under full working conditions and found satisfactory. The materials and workmanship were found to be good and sound.

It is submitted that
this vessel is eligible for
THE RECORD.

Elec. Light

25/ 3/9/30

Total Capacity of Generators 4.5 Kilowatts.

The amount of Fee ... £ 8.0.0 : When applied for, 14 Aug 1930

Travelling Expenses (if any) £ : : When received, 22/8/30

Committee's Minute

Assigned

Elec. Light

J. S. Rankin.
Surveyor to Lloyd's Register of Shipping.