

Rpt. 13.

No. 45626

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 19 When handed in at Local Office 4 APR 1935 Port of Hull Received at London Office 5 APR 1935

No. in Survey held at Hull Reg. Book. Date, First Survey 19th Mar. 1935 Last Survey 1st April, 1935 (Number of Visits 3)

on the Steel S.S. "Kingston Cairngorm"

Tons { Gross 448.08 Net 173.79

Built at Beverley By whom built Cook Welton & Gemmell Ltd Yard No. 601 When built 1935.4

Owners Kingston Steam Trawling Co. Ltd. Port belonging to Hull

Electric Light Installation fitted by W. Broady & Son Contract No. When fitted 1935.

Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution Two Wire

Pressure of supply for Lighting 100 volts, Heating 100 volts, Power

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 rating 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

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 Starboard side of engine room

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 Beside generator

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

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 slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

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, proportion of omnibus bars Yes

individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches S.P. linked switch for generator. Outgoing circuits controlled by S.P. switches and protected by fuses on each pole.

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 lamps

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes

Cables: Single, twin, concentric, or multicore Lead 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 1 volt
Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 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 None
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 Armoured cables G.I. clips; lead covered in cabin spaces with brass clips
 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 None
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 Lead
Earthing Connections, state what earthing connections are fitted and their respective sectional areas Yes. 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 None
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 None
Secondary Batteries, are they constructed and fitted as per Rule None
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 None. are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected None. how are the cables led None
 where are the controlling switches situated None
Searchlight Lamps, No. of None, whether fixed or portable None, are their fittings as per Rule None
Are Lamps, other than searchlight lamps, No. of None, are their live parts insulated from the frame or case None, are their fittings as per Rule None
Motors, are their working parts readily accessible None, are the coils self-contained and readily removable for replacement None. are the brushes, brush holders, terminals and lubricating arrangements as per Rule None, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material None. are they protected from mechanical injury and damage from water, steam or oil None. are their axes of rotation fore and aft None. 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 None. if not of this type, state distance of the combustible material horizontally or vertically above the motors None and None.
Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule None
Lightning Conductors, where lightning conductors are required, are these fitted as per Rule None
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 None. If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office None

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	One	8	100	80	350	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 Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	1	0.060	19	0.064	68	83	40	V.I.R.	
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER									
ENGINE ROOM	1	0.00299	3	0.036	6	12	40		L.C. & armoured.
BOILER ROOM	1	0.00299	3	0.036	2	12	60		"
AUXILIARY SWITCHBOARDS									
ACCOMMODATION	1	0.01046	7	0.044	10.5	31	150		
"	1	0.00701	7	0.036	8	24	250		
"	1	0.00701	7	0.036	7	24	30		
Navigation Main	1	0.00701	7	0.036	5	24	150		
WIRELESS	1	0.00701	7	0.036	10	24	150		
SEARCHLIGHT									
MASTHEAD LIGHT	1	0.00299	3	0.036	1	12	180		
SIDE LIGHTS	1	0.00299	3	0.036	1.5	12	24		
COMPASS LIGHTS	1	0.00194	3	0.029	1	7.8	20		L.C.
POOP LIGHTS	1	0.00194	3	0.029	1	7.8	130		L.C.
CARGO LIGHTS	1	0.00194	3	0.029	6	7.8	20		L.C. & armoured
ARC LAMPS									
HEATERS	1	0.00299	7	0.036	10	12	30		L.C.

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.

WM BROADY & SON
ENGLISH STREET
HULL.

Electrical Engineers.

Date 28th March 1935.

COMPASSES.

Distance between electric generators or motors and standard compass 75 ft
 Distance between electric generators or motors and steering compass _____
 The nearest cables to the compasses are as follows:—
 A cable carrying 0.5 Ampères to feet from standard compass feet from steering compass.
 A cable carrying 0.5 Ampères to feet from standard compass 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 no degrees on any course in the case of the standard compass, and no degrees on any course in the case of the steering compass.

COOK, WELTON & GEMMELL, LTD.

Chippale
 Secretary & Director.

Builder's Signature.

Date 30/3 1935

Is this installation a duplicate of a previous case Yes If so, state name of vessel "Kingston Ceylonite"

General Remarks (State quality of workmanship, opinions as to class, &c. This electrical installation has been fitted on board under special survey and in accordance with the rules.

It has been tried under working conditions, found satisfactory and is eligible in my opinion, to have the notation of "Electric Light."

Noted
8/4/35
[Signature]

Total Capacity of Generators 8 Kilowatts.

The amount of Fee ... £ 4 : 0 : :
 Travelling Expenses (if any) £ : : 27-4-35

When applied for, 4 APR 1935
 When received, 27-4-35

G. Kuffatt
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 9 APR 1935

Assigned see J.E. Machez

Im.1226.—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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