

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

OCT 12 1937

Received at London Office

Date of writing Report

19

When handed in at Local Office

11-10-1937

Port of

Middlesbrough

No. in Reg. Book

Survey held at South Bank

Date, First Survey

6 July

Last Survey

11 Sept 1937

on the KINGSTON AMBER

Tons { Gross
Net

Built at

South Bank

By whom built

Smiths Dock Co Ltd

Yard No. 1047

When built

1937

Owners

Kingston Steam Trawling Co Ltd

Port belonging to

Hull

Electric Light Installation fitted by

RICHARD PICKERSGILL & SONS, LTD.

Contract No.

When fitted

1937

Is the Vessel fitted for carrying Petroleum in bulk

up.

System of Distribution

Double wire

Pressure of supply for Lighting

100

volts, Heating

volts, Power

volts.

Direct or Alternating Current, Lighting

Direct Current 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

Where more than one generator is fitted are they arranged to run in parallel

series with each shunt field

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

short circuited, or touched

Yes

Position of Generators

in way of the generators satisfactory

Yes

are they clear of all inflammable material

Yes

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

are the generators protected from mechanical injury and damage from water, steam or oil

Yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed

Yes

in metallic contact

No

Main Switch Boards, where placed

Starboard Side of Engine Room

After Bulkhead

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

injury and damage from water, steam or oil

Yes

horizontally from or vertically above the switchboards

Yes

materials

Yes

is it of an approved type

Yes

non-hygroscopic insulating material, and the slab similarly insulated from its framework

Yes

type

Yes

accessibility of all parts

Yes

omnibus bars

Yes

are all screws and nuts securing connections effectively locked

No

switches

Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

Double Pole Main Switch & Fuses & Double Pole Circuit Switches & Fuses

Are turbine driven generators fitted with emergency trip switch as per rule

Yes

fire-resisting material or lined with approved material

Yes

Instruments on main switchboard

One

One

voltmeters

Yes

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

2 Lamps in series across positive & negative to Earth

do these comply with the requirements of the Rules

Yes

are the fusible cutouts of an approved type

Yes

have the reversed

current protection devices been tested under working conditions 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 Yes are the cables insulated and protected as per Tables IV, V, X or XI of the Rules Yes

If the cables are insulated otherwise than as per Rule, are they of an approved type Yes **Fall of Pressure**, state maximum between bus bars and any point of the installation under maximum load 2 volts

Cable Sockets, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Yes **Paper Insulated and Varnished Cambric Insulated Cables**

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound Yes, or waterproof insulating tape Yes **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 Are cables in machinery spaces, galleys, lavatories, bathrooms and storerooms lead covered or run in conduits Yes **Support and Protection of Cables**, state how the cables are supported and protected Lead covered with brass bands

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, are the cables and fittings in accordance with the special requirements Yes

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 with 19/06 v between Dynamo Deckplate & Dynamo Decking soldered into sockets, 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 Yes

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 Yes

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 Heavy lead iron

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Dark lights fixed with glass covers & glass through watertight bulkheads

where are the controlling switches situated for Deck in crew space & for Dunks in Engine room

are all fittings suitably ventilated Yes, are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials Yes

Heating and Cooking Appliances, are they constructed and fitted as per Rule Yes, are air heaters constructed and fitted as per Rule Yes

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

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 Yes

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 and

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing Yes **Control Gear and Resistances**, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule Yes **Lightning Conductors**, where lightning conductors are required, are these fitted as per Rule Yes **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 Yes are all fuses of the filled cartridge type Yes are they of an approved type Yes

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office Yes

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule Yes

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	8	100	80	400	Roby Engine	Coal	
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT, AMPÈRES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rate.			
MAIN GENERATOR	1	.06	19	.064	48	83	334	W.R.	Lead
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER									
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
ACCOMMODATION	1	.01	1	.044	10.5	32	155	W.R.	Lead
Navigation	1	.049	1	.036	5	24	-	W	W
Lower	1	.049	1	.036	8	24	260	W	W
Aft	1	.049	1	.036	8	24	155	W.R.	W
WIRELESS	1	.049	1	.036	10	24	155	W.R.	W
SEARCHLIGHT									
MASTHEAD LIGHT	1	.0015	1	.044	40 watts	1	230	W.R.	W
SIDE LIGHTS	1	.0015	1	.044	40	1	35	W	W
COMPASS LIGHTS	1	.0015	1	.044	30	1	35	W	W
POOP LIGHTS									
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT, AMPÈRES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rate.			
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.

RICHARD PICKERSGILL & SONS, LTD.

Electrical Engineers.

Date October 15 1937

COMPASSES.

Distance between electric generators or motors and standard compass 60 ft

Distance between electric generators or motors and steering compass 56 ft

The nearest cables to the compasses are as follows:—

A cable carrying 30 watts Amperes _____ feet from standard compass _____ feet from steering compass.

A cable carrying _____ Amperes _____ feet from standard compass _____ feet from steering compass.

A cable carrying _____ Amperes _____ 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 each course in the case of the standard compass, and nil degrees on each course in the case of the steering compass.

FOR SMITH'S DOCK CO, LTD.

J. W. B. A. M. Builder's Signature. Date _____

Is this installation a duplicate of a previous case yes. If so, state name of vessel Walbrough Mdb 15973.

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

The materials & workmanship are good. The installation has been fitted under Special Survey in accordance with Rule requirements & was found satisfactory under full working conditions.

W. J. H.
12/10/37.

Total Capacity of Generators 8 Kilowatts.

The amount of Fee ... £ 8 : 0 : 0 When applied for, 289 1937

Travelling Expenses (if any) £ : : When received, 1. 11 1937

R. C. H. J. H.
Surveyor of Lloyd's Register of Shipping.

Committee's Minute FRI 15 OCT 1937

Assigned See other F.E. report

2m. 5. 34. — Transfer. The Surveyors are requested not to write on or below the space for Committee's Minute.