

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 31 MAR 1930

Date of writing Report 29.3.1930 When handed in at Local Office 29 March 1930 Port of Hull

No. in Survey held at Hull. Date, First Survey 14 Mar Last Survey 20 March 1930

10588 on the Steam Trawler "AVANTURINE" (Number of Visits...)

Tons { Gross 296.35 Net 129.64

Built at Beverly By whom built Cook, Kelton & Hammett & Co Yard No. 542 When built 1930

Owners Kingston S. Trawling Co Ltd Port belonging to Hull

Electric Light Installation fitted by Wm Broady Sons Ltd Contract No. When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk No

### System of Distribution

Two 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 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 Yes

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 Subboard 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. Direct coupled.

Main Switch Boards, where placed Beside generator in engine room 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 - 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 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 SP. Linked

Switch for generator. Outgoing circuits controlled by SP. switches & 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, with separate switches

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

PARTICULARS OF GENERATING PLANT.

Table with columns: DESCRIPTION OF GENERATOR, No. of, Rated at (Kilowatts, Volts, Amperes, Revs. per Min.), Driven by, and Where driven by an internal combustion engine (Fuel Used, Flash Point of Fuel).

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

Table with columns: DESCRIPTION, Conductors (No. per Pole, Total Effective Area per Pole Sq. Ins.), Composition of Strand (No., Diameter), Total Maximum Current (In Circuit, Rule), Approximate Length (Lead and Return) Feet, Insulated with, and How Protected.

MOTOR CONDUCTORS.

Table with columns: DESCRIPTION, No. of Motors, Conductors (No. per Pole, Total Effective Area per Pole Sq. Ins.), Composition of Strand (No., Diameter), Total Maximum Current (In Circuit, Rule), Approximate Length (Lead and Return) Feet, Insulated with, and How Protected.

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

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

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

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

Support and Protection of Cables, state how the cables are supported and protected

If cables are run in wood casings, are the casings and caps secured by screws, are the cap screws of brass, are the cables run in separate grooves

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

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

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed

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

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

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

Navigation Lamps, are these separately wired, controlled by separate switch and separate fuses, are the fuses double pole

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

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

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected

where are the controlling switches situated

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

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

Motors, are their working parts readily accessible, are the coils self-contained and readily removable for replacement

are the brushes, brush holders, terminals and lubricating arrangements as per Rule, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material

are they protected from mechanical injury and damage from water, steam or oil, are their axes of rotation fore and aft

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, if not of this type, state distance of the combustible material horizontally or vertically above the motors

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

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 25<sup>th</sup> March 1930.

COMPASSES.

Distance between electric generators or motors and standard compass 70 feet. (?)  
 Distance between electric generators or motors and steering compass  
 The nearest cables to the compasses are as follows:—  
 A cable carrying 5 Ampères To feet from standard compass feet from steering compass.  
 A cable carrying 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 40 degrees on any course in the case of the standard compass, and 40 degrees on any course in the case of the steering compass.

COOK, WELTON & GEMMELL, LTD.,

Alfred Lipide  
 Secretary & Director.

Builder's Signature.

Date 27<sup>th</sup> March 1930

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

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

The electrical installation of this vessel has been fitted on board under special survey, tried under full working conditions & found in good order. It is eligible in my opinion to have record of "Electric Light".

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

Elec. Light

J. H. 3/13/30

Total Capacity of Generators 6 Kilowatts.

The amount of Fee ... £ 3 : 0 : 29<sup>th</sup> Mar 1930

Travelling Expenses (if any) £ : : 11/4/30

John H. Mackintosh  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 1 APR 1930

Assigned

Elec Lt

Im. 1228.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



© 2021

Lloyd's Register Foundation