

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office..... 10 DEC 1930

Date of writing Report 10 Dec. 1930 When handed in at Local Office — to Port of Hong Kong.

No. in Survey held at Hong Kong Date, First Survey 11 Sept Last Survey 30 Oct 1930
 Reg. Book, — (Number of Visits.....8.....)

on the M.V. "KURIMARU" Tons { Gross 288.27
 Net 167.70

Built at Hong Kong By whom built Hongkong Ship Repair Works and No. 681 When built 1930.

Owners Pereira Pacific Plantation Pty Ltd Port belonging to Tulagi B.S.I.P.

Electric Light Installation fitted by Builders Contract No. — When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk no.

System of Distribution Two line.

Pressure of supply for Lighting 110 volts, Heating — volts, Power 110 volts.

Direct or Alternating Current, Lighting Direct Power Direct

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 Engine Room bottom platform level.

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 bottom platform.

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

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 D.P. switch with

suitable fuses; D.P. double throw switches & suitable fuses for outgoing circuits.

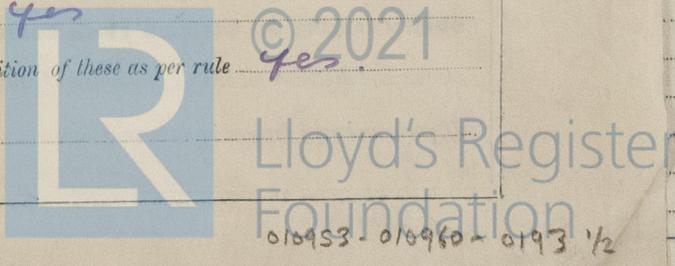
binders which have D.P. single throw switch fuses.

Instruments on main switchboard two ammeters two voltmeters no 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 two 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



Removed + 15 lbs lead fitted 12.24.

Cables: Single, twin, concentric, or multicore twin 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 1.5 K.O.B.

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 ✓

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 Clipped on surface, spars and through metal pipes where necessary.

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 ✓. 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 ✓

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 one each at switchboard

are their connections made as per Rule yes.

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 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 steel guards. are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected ✓ how are the cables led ✓ 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 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 ✓, if not of this type, state distance of the combustible material horizontally or vertically above the motors ✓ and ✓

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 ✓

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 | Amps. | Revs. per Min. | | Fuel Used. | Flash Point of Fuel. |
| MAIN | 1 | 10 | 110 | 87 | 750 | I.C. Engine | Cude Oil | above 150° F. |
| AUXILIARY | 1 | 5 | 110 | 43.5 | 750 | I.C. Engine | Cude Oil | above 150° F. |
| EMERGENCY | | | | | | | | |
| ROTARY TRANSFORMER | | | | | | Start. auxiliary engine replaced by a "Job" Southern Cross Engine | | 3.64 |

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 | | .14780 | 37 | .064 | 87 | 130 | 60 | V.I.R.-lead | In pipe |
| EQUALISER CONNECTIONS | | | | | | | | | |
| AUXILIARY GENERATOR | | .10090 | 19 | .083 | 43.5 | 118 | 30 | V.I.R.-lead | In pipe |
| EMERGENCY GENERATOR | | | | | | | | | |
| ROTARY TRANSFORMER MOTOR GENERATOR | | | | | | | | | |
| ENGINE ROOM | (20) | .01046 | 7 | .044 | 4 | 31 | 12 | V.I.R.-lead | In pipe |
| BOILER ROOM | | | | | | | | | |
| AUXILIARY SWITCHBOARDS | | | | | | | | | |
| ACCOMMODATION | | | | | | | | | |
| Navigation & Shade Deck (36) | | .02214 | 7 | .064 | 13 | 46 | 120 | V.I.R.-lead covered | |
| Upper Deck (39) | | .02214 | 7 | .064 | 14 | 46 | 70 | " " | |
| WIRELESS | | | | | | | | | |
| SEARCHLIGHT | | | | | | | | | |
| MASTHEAD LIGHT | (2) | .00322 | 1 | .064 | 4 | 12.9 | 330 | V.I.R.-lead covered | |
| SIDE LIGHTS | (2) | .00322 | 1 | .064 | 4 | 12.9 | 124 | " " | |
| COMPASS LIGHTS | (2) | .00322 | 1 | .064 | 4 | 12.9 | 62 | " " | |
| POOP LIGHTS | | | | | | | | | |
| CARGO LIGHTS (10) | | .00322 | 1 | .064 | 2 | 12.9 | 68 | " " | |
| 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 | 1 | | .06000 | 19 | .064 | 32.6 | 83 | 64 | V.I.R.-lead covered | In pipe |
| EMERGENCY BILGE PUMP | | | | | | | | | | |
| SANITARY PUMP | | | | | | | | | | |
| CIRC. SEA WATER PUMPS | | | | | | | | | | |
| CIRC. FRESH WATER PUMPS | | | | | | | | | | |
| AIR COMPRESSOR | | | | | | | | | | |
| FRESH WATER PUMP Bilge | 1 | | .10090 | 19 | .083 | 65 | 118 | 52 | V.I.R.-lead covered | In pipe |
| ENGINE TURNING GEAR | | | | | | | | | | |
| ENGINE REVERSING GEAR | | | | | | | | | | |
| LUBRICATING OIL PUMPS | | | | | | | | | | |
| OIL FUEL TRANSFER PUMP | | | | | | | | | | |
| WINDLASS | 1 | | .10090 | 19 | .083 | 80 | 118 | 184 | V.I.R.-lead covered | |
| WINCHES, FORWARD | 1 | | .10090 | 19 | .083 | 80 | 118 | 148 | " " | |
| 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.

R.M. Dyer

Electrical Engineers.

Date 15/11/30

COMPASSES.

Distance between electric generators or motors and standard compass 50 feet

Distance between electric generators or motors and steering compass 60 feet

The nearest cables to the compasses are as follows:—

A cable carrying 4 Ampères Compass Lt. feet from standard compass Compass Lt. feet from steering compass.

A cable carrying 7 Ampères 12 feet from standard compass 16 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 —

The maximum deviation due to electric currents was found to be — degrees on — course in the case of the standard compass, and — degrees on — course in the case of the steering compass.

R.M. Dyer

Builder's Signature.

Date 15/11/30

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 fitted & tested in accordance with the Rule Requirements, & the materials & workmanship are, in my opinion, satisfactory.

It is recommended that the notation "Electric Light" be made in the Register Book.

*It is submitted that
 the required Elec. Light
 is fitted
 15/11/30
 (The set removed & 15th set fitted 12/31)*

Total Capacity of Generators 15.20 Kilowatts.

The amount of Fee ... £ 464.00 { When applied for, 8/11/30

Travelling Expenses (if any) £ — : { When received, 8.1.19.31

J. Simpson
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 19 DEC 1930

Assigned

Elec. Lt.



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