

YACHT.

Rpt. 13.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 11920

FRI. 16 MAY. 1924

Date of writing Report 10 When handed in at Local Office 15.5.24 10 Port of Middlesbrough

No. in Survey held at Haverton Hill Date, First Survey while Last Survey building 19 Reg. Book.

on the Motor Yacht "PRINCESS"

Built at Haverton Hill By whom built Furness S. B. Co Ltd Yard No. 46 Tons { Gross Net When built 1924

Owners Sir James Knott Bart Port belonging to Jersey

Electric Light Installation fitted by Furness Shipbuilding Co Ltd Contract No. When fitted 1924

System of Distribution

Double wire Insulated

Pressure of supply for Lighting 110 volts, Heating 110 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 overload yes, are they compound wound Shunt are they over compounded 5 per cent. —, if not compound wound state distance between each generator 7' and 24'

Where more than one generator is fitted are they arranged to run in parallel yes, is an adjustable regulating resistance fitted in series with each shunt field yes

Are all terminals accessible and clearly marked yes, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited yes Are the lubricating arrangements of the generators as per Rule yes

Position of Generators 2 Starboard & 1 Port 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

are their axis 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 Aft End of 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 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, incombustible 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 connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework yes, and is the frame effectively earthed yes

Are the following fittings as per Rule, viz.: — 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 Circuit Breakers with

Overload Trip fitted on each pole: — Reverse Current Trip fitted on each

Circuit Breaker — Double pole switch & fuse for each outgoing circuit

Instruments on main switchboard 500 ampere voltmeters voltmeter 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 16 c.p. lamps in series, middle point earthed & connected to each bus-bar by switch & fuse

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

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



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Insulation of Cables, state type of cables, single or twin *Single & Twin* are the cables insulated and protected as per Tables III or IV of the Rules *Table III*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5 volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 Cables in Engine Room are lead covered and armoured. Cables in other compartments are V.I.R. in Hardwood lacing

Support and Protection of Cables, state how the cables are supported and protected: Lead covered & armoured cables supported by galvanized iron clps. V.I.R. Cables supported by leather clps

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 VI yes

Refrigerated Chambers, if light 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 *porcelain junction boxes with cast iron covers*

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 Positions, *where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently*

Earthling Connections, state what earthing connections are fitted and their respective sectional areas. *Generators & Motors in Engine Room earthed by a conductor which is .5" of the sectional area of supply cables*

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

are the fuses double pole yes, are the switches and fuses grouped in a position accessible only to the officers on watch

has each navigation lamp an automatic indicator as per Rule yes, are separate screens provided for the use of oil and electric side lights

are separate oil lanterns provided for the mast head lights and side lights. *Separate interiors only.*

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

at Guarded fittings in Store Rooms Etc

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 _____

Are 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

are the brushes, brush holders, terminals and lubricating arrangements as per Rule 10, 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 yes are their axis of rotation fore and aft with exception.
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 as per Rule 44

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	3	25	110	228	450	Gardner Engine Enclosed Type	Kerosene Oil	
ALTERNATE								
EMERGENCY								
			Dynamos by Croxson & Co Ltd					
ROTARY TRANSFORMER	-	-	-	-	-			

LIGHTING AND HEATING CONDUCTORS.

[illegible]

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
124718	REFRIGERATING MACHINE	1	.0225	7	.064	42	160'	V. 1. R	Lead box Room & Braided
125563	SANITARY COMPRESSOR	1	.007	7	.036	16	60'	do	do
124104	GENERAL SERVICE PUMP	1	.01	19	.032	64	180'	do	do
1697	SOUNDING MACHINE	1	.007	7	.036	18	60'	do	do
50682	WASTE WATER PUMP	1	.007	7	.036	18	180'	do	do
44318/2	CIRC. SUP. WATER PUMPS	1	.007	7	.036	18	60'	do	do
123996	AIR COMPRESSOR	1	.06	19	.064	83	110'	do	do
49318/1	FRESH WATER PUMP	1	.007	7	.036	18	60'	do	do
12130	ENGINE ROOM VENT FAN	1	.002	3	.029	2.9	40'	do	wood casing
480	STEERING GEAR	1	.002	3	.029	2	70'	do	do do
124105	OIL FUEL TRANSFER PUMP	1	.007	7	.036	16	70'	V. 1. R	L.b. Room & Braided
124886	WINDLASS	1	.06	19	.064	60	100'	do	wood casing
124883	WINDLASS	1	.06	19	.064	60	90'	V. 1. R	L.b. Room & Braided
124884	WINDLASS	1	.0225	7	.064	40	70'	do	do
125239	STEERING GEAR	1	.002	3	.029	2	50'	do	do
93229/1/3	WORKSHOP WATER	1	.007	7	.036	10	30'	do	do
20057	VENTILATING FANS (SUPPLY)	1	.002	3	.029	2	40'	do	do
20052	do	1	.002	3	.029	2	60'	do	do
20053	do	1	.002	3	.029	2	80'	do	do
20054	do	1	.002	3	.029	2	100'	do	do
39387	do EXHAUST	1	.002	3	.029	2	110'	do	do
39388	do	1	.002	3	.029	2	40'	do	do
39389	do	1	.002	3	.029	2	40'	do	do
39390	do	1	.002	3	.029	2	60'	do	do
39391	do	1	.002	3	.029	2	70'	do	do
125564	BOOSTER MOTOR	1	.06	19	.064	60	60'	do	do
125865	GENERATOR	1	.06	19	.064	90	70'	do	do

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.

FURNESS SHIPBUILDING CO. LIMITED

P. S. Glover

Electrical Engineer.

Date 16th May 24

COMPASSES.

Distance between electric generators or motors and standard compass 100' approx

Distance between electric generators or motors and steering compass 90' do

The nearest cables to the compasses are as follows:—

A cable carrying 3 Amperes 4 feet from standard compass 4 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 all course in the case of the standard compass, and nil degrees on all course in the case of the steering compass.

FURNESS SHIPBUILDING COMPANY, LTD.

HAVESTON HILL, LONDON, E.C.

J. McLaughlin

DIRECTOR

Builder's Signature.

Date

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 in

accordance with the Rules: is of good materials and workmanship and on completion was examined under full working conditions and found satisfactory

THE RECORD

Elec. Light

D. J.

4/6/24

Total Capacity of Generators 75 Kilowatts

The amount of Fee ... £ 30-0-0

When applied for,

15-5-1924

Travelling Expenses (if any) £

When received,

See debit book.

Wm Morrison

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Im. 9. 2. 1. — Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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