

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

31 AUG 1948

Received at London Office.....

Date of writing Report... 25th August 1948. When handed in at Local Office... 26th August 1948. Port of TORQUAY.

No. in Survey held at DARTMOUTH. Date, First Survey 9. 4. 48. Last Survey 20th July, 1948.
Reg. Book. (Number of Visits... Five)

on the M.V. "POLURRIAN" Tons { Gross... 328.43
Net... 148.79

Built at Dartmouth By whom built Philip & Son Ltd. Yard No. 1165 When built 1948-7

Owners Coastal Freighters Ltd. Port belonging to Dartmouth

Electrical Installation fitted by Philip & Son Ltd. Contract No. 1165 When fitted 1948.

Is vessel fitted for carrying Petroleum in bulk... No. Is vessel equipped with D.F. No. E.S.D. No. Gy.C. No. No. Sub.Sig. No.

Have plans been submitted and approved... Yes System of Distribution Constant Pressure Parallel Voltage of supply for Lighting 110
2 wire

Heating None Power None Direct or Alternating Current, Lighting D.C. Power --- If Alternating Current state periodicity --- Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off... Yes Are turbine emergency governors fitted with a trip switch as per Rule... --- Generators, are they compound wound... Yes, are they level compounded under working conditions... Yes,

if not compound wound state distance between generators... --- and from switchboard... --- Where more than one generator is fitted are they arranged to run in parallel... No, are shunt field regulators provided... Yes Is the compound winding connected to the negative or positive pole

Negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing... --- Have certificates of test for machines under 100 kw. been supplied... Yes and the results found as per rule... Yes Are the lubricating arrangements and the construction

of the generators as per rule... Yes Position of Generators Engine Room - One port - One starboard

is the ventilation in way of generators satisfactory... Yes are they clear of inflammable material... Yes, if situated near unprotected combustible material state distance from same horizontally... --- and vertically... --- are the generators protected from mechanical injury and damage from water, steam and oil... Yes, are the bedplates and frames earthed... Yes and the prime movers and generators in metallic

contact... Yes Switchboards, where are main switchboards placed... Engine Starboard side.

are they in accessible positions, free from inflammable gases and acid fumes... Yes, are they protected from mechanical injury and damage from water, steam and oil... Yes, if situated near unprotected combustible material state distance from same horizontally... --- and vertically... ---, what insulation

material is used for the panels... Sindanyo, if of synthetic insulating material is it an Approved Type... Yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule... --- Is the frame effectually earthed... Yes

Is the construction as per Rule... Yes, including accessibility of parts... Yes, absence of fuses on the back of the board... Yes, individual fuses to pilot and earth lamps, voltmeters, etc.,... Yes locking of screws and nuts... Yes, labelling of apparatus and fuses... Yes, fuses on the "dead"

side of switches... Yes Description of Main Switchgear for each generator and arrangement of equaliser switches... ---

D.P. Double throw Knife Switch for both generators and D.P. Fuses.

and for each outgoing circuit... D.P. Knife switches and fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... Yes Instruments on main switchboard... One

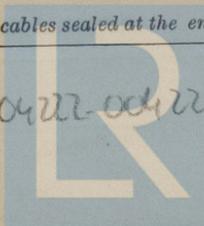
ammeters... One voltmeters... --- synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the equaliser connection... --- Earth Testing, state means provided... Earth ramps and switches.

Switches, Circuit Breakers and Fuses, are they as per Rule... Yes, are the fuses an approved type... Yes, are all fuses labelled as per Rule... Yes If circuit breakers are provided for the generators, at what overload current did they open when tested... ---, are the reversed current

protection devices connected on the pole opposite to the equaliser connection... ---, have they been tested under working conditions, and at what current did they operate... --- Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule... Yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules... Yes, if otherwise than as per Rule are they of an approved type... ---, state maximum fall of pressure between bus bars and any point under maximum load... 2 volts, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets... --- Are paper insulated and varnished cambric insulated cables sealed at the ends... None



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Foundation

with insulating compound or waterproof insulating tape. Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage. Yes, are cables laid under machines or floorplates. No, if so, are they adequately protected. --- Are cables in machinery spaces, galleys, laundries, etc., lead covered. Yes or run in conduit. --- State how the cables are supported and protected. Clipped to steel work on to trays. Conduit in hold only.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Refrigerated chambers, are the cables and fittings as per Rule. None Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands. Yes, where unarmoured cables pass through beams, etc., are the holes effectively bushed. Yes and with what material. Lead Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Yes Emergency Supply, state position. None.

Navigation Lamps, are they separately wired. Yes with controlled by separate double pole switches. Yes and fuses. Yes Are the switches and fuses in a position accessible only to the officers on watch. Yes, is an automatic indicator fitted. Yes Secondary Batteries, are they constructed and fitted as per Rule. None, are they adequately ventilated. --- what is the battery capacity in ampere hours. ---

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. Yes Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. No, if so, how are they protected. ---

and where are the controlling switches fitted. ---, are all fittings suitably ventilated. Yes

are all fittings and accessories constructed and installed as per Rule. Yes Searchlight Lamps, No. of None, whether fixed or portable. ---

are their fittings as per Rule. --- Heating and Cooking, is the general construction as per Rule. None,

are the frames effectually earthed. ---, are heaters in the accommodation of the convection type. --- Motors, are all motors constructed and

installed as per Rule. None and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil. ---, if situated near unprotected combustible material state minimum distance from same horizontally. --- and vertically. --- Are

motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment. ---

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing. --- Have certificates of test for motors under

100 BHP intended for essential services been supplied and the results found as per Rule. --- Control Gear and Resistances, are they constructed and

fitted as per Rule. --- Lightning Conductors, where required are they fitted as per Rule. --- Ships carrying Oil having a Flash Point

less than 150° F. Have all the special requirements of the Rules for such ships been complied with. ---, are all fuses of the cartridge type. ---

are they of an approved type. --- Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such

ships. --- Are the cables lead covered as per Rule. --- Spare Gear, if the vessel is for open sea service have spares been provided as per

Rule. Yes, are they suitably stored in dry situations. Yes Insulation Tests, has the insulation resistance of all circuits and apparatus been tested

and found satisfactory. Yes

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	2	3	110	27.5	1000	Aux Diesel Engines P & S	Heavy Oil	Above 150° F
EMERGENCY	---	---	---	---	---	---	---	---
ROTARY TRANSFORMER	---	---	---	---	---	---	---	---

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... Port	3	1	7/044	27.5	39	40	V.I.R.	L.C.
" " ROTARY Starhd	3	1	7/044	27.5	39	40	V.I.R.	L.C.
EMERGENCY GENERATOR	---	---	---	---	---	---	---	---
ROTARY TRANSFORMER: MOTOR	---	---	---	---	---	---	---	---
" " GENERATOR	---	---	---	---	---	---	---	---

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS ...	1	7/036	1.5	24	75	V.I.R.	L.C.
Navigation	1	7/036	1.4	24	40	V.I.R.	L.C.
Lighting	1	7/036	1.4	24	40	V.I.R.	L.C.

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	7/036	8	24	75	V.I.R.	L.C.
NAVIGATION LIGHTS	1	1/044	0.4	5	300	V.I.R.	L.C.
LIGHTING AND HEATING	1	1/044	0.8	5	230	V.I.R.	L.C.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.
NONE.		

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.
 All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.
 The foregoing is a correct description.

FOR PHILIP & SON, LIMITED,

J. Ashieip
 MANAGING DIRECTOR

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass.....

Minimum distance between electric generators or motors and steering compass..... 32 feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.2 Ampères feet from standard compass to ~~10 feet from~~ steering compass.

A cable carrying 1.5 Ampères feet from standard compass 10 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 degrees on course in the case of the

standard compass, and Nil. degrees on any course in the case of the steering compass.

FOR PHILIP & SON, LIMITED,

J. Ashieip
 MANAGING DIRECTOR

Builder's Signature.

Date

Is this installation a duplicate of a previous case..... No. If so, state name of vessel.....

Plans. Are approved plans forwarded herewith..... One only. If not, state date of approval..... 22.1.47. & 24.2.47.

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith..... Yes.

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.).....

This Electric installation has been installed under Special Survey, in accordance with Rules, the approved plans and the Secretary's letter. The workmanship and materials are good and when tried under full working conditions it was found satisfactory in every respect and is such as can be accepted, in my opinion, for a classed vessel.

Note sent 16/9/48

5m. 4.39.—Transfer. (MADE AND PRINTED IN ENGLAND.)
 (The Surveymen are requested not to write on or below the space for Committee's Minutes.)

Total Capacity of Generators..... 6 ✓ Kilowatts.

The amount of Fee ...	£ 7 : 10 :	When applied for,19.....
Travelling Expenses (if any) £	2 :	

D. J. P. ...
 Surveyor to Lloyd's Register of Shipping.

FRI 17 SEP 1948

Committee's Minute

Assigned..... *Sir F. E. M. ...*