

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 18 NOV 1925

Date of writing Report 20-10-25 When handed in at Local Office 16-11-25 19 Port of GLASGOW.

No. in Survey held at GREENOCK. Date, First Survey 12th Aug Last Survey 14th Oct 1925
(Number of Visits.....)

Reg. Book. 30817 on the T.S.M.V. "PROMETHEUS" Tons { Gross
Net

Built at GREENOCK By whom built SCOTT'S S. & E. COY. Yard No. 525 When built 1925.

Owners OCEAN S.S. COY (A. HOLT & CO) Port belonging to LIVERPOOL.

Electric Light Installation fitted by SCOTT'S S. & E. COY. Contract No. When fitted 1925.

System of Distribution THREE WIRE WITH DIRECT CURRENT ✓
Pressure of supply for Lighting 110 ✓ volts, Heating 220 ✓ volts, Power 220 ✓ volts.

Direct or Alternating Current, Lighting DIRECT ✓ Power DIRECT ✓

If alternating current system, state frequency of periods per second — YES ✓

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 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 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 IN MAIN ENGINE ROOM. are they clear of all inflammable material YES

is the ventilation in way of the generators satisfactory 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 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 IN MAIN 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 TRIPLE POLE CIRCUIT

BREAKER FOR EACH GENERATOR. THIRD POLE ACTS AS EQUALIZER SWITCH. D.P. CIRCUIT BREAKER OR D.P.Q.B. SWITCH

& FUSES FOR 220 VOLT FEEDERS. S.P.Q.B. SELECTOR SWITCHES & D.P. FUSES FOR 110 VOLT FEEDERS.

Instruments on main switchboard 9 ammeters 7 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 TWO 220 V. 30 WATT LAMPS WITH 2 WAY & OFF SWITCH BETWEEN +VE & -VE TO EARTH. TWO 110V. 30 WATT LAMPS IN PARALLEL BETWEEN NEUTRAL & EARTH.

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.

Insulation of Cables, state type of cables, single or twin SINGLE are the cables insulated and protected as per Tables IV or V of the Rules: N. & V.

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3.5 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 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 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

Support and Protection of Cables, state how the cables are supported and protected CLIPPED TO GALVANIZED SHEET IRON TRAYS OR WOOD GROUNDS, LEAD COVERED AND BRAIDED OR HEAD ARMOURED & BRAIDED.

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 VI YES

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements NONE FITTED

Joints in Cables, state if any, and how made, insulated, and protected NO JOINTS IN CABLES.

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 Positions, 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 LEAD SHEATHING & STEEL WIRE ARMOUR. EARTHED ON ALL CABLES. SECTIONAL AREA OF EARTHING CONDUCTORS "003" TO "06".

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 IN SPECIAL EMERGENCY HOUSE AT TOP OF ENGINE CASING. EMERGENCY SWITCHBOARD WITH CIRCUIT SWITCHES & FUSES AND MAIN CHANGE OVER SWITCH TO MAIN SUPPLY OR EMERGENCY DYNAMO. BY 4 CYLINDER "RECORD" 28 B.H.P. 900 R.P.M. ENGINE.

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, are separate screens provided for the use of oil and electric side lights YES

are separate oil lanterns provided for the mast head lights and side lights 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 CAST IRON COVERS

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected NONE

FITTED, how are the cables led —

where are the controlling switches situated —

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

Arc Lamps, other than searchlight lamps, No. of NONE, 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 axis of rotation fore and aft GENERALLY

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 NONE SO SITUATED, 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 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 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	4	100	220	455	300	"BURMEISTER WAIN" DIESEL ENG.	SHELL MIX.	187° F.
AUXILIARY	1	16	110	146	900	"RECORD" I.C. PARAFFIN ENG.	PARAFFIN.	82° F.
EMERGENCY	1	16	110	146	900			
ROTARY BALANCER	2	3.3	110	30	1000			

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	3	0.7500	91	.103	455	60	RUBBER	LEAD COVERED & BRAIDED
	AUXILIARY GENERATOR	2	0.1500	37	.072	146	42	"	"
	EMERGENCY GENERATOR	2	0.1500	37	.072	146	42	"	"
	ROTARY BALANCER	4	0.0400	19	.032	30	393	"	"
	AUXILIARY SWITCHBOARDS	2	0.3500	37	.112	350	996	PAPER	LEAD ARMOURED & BRAIDED
	ENGINE ROOM	2	0.0600	19	.064	59	90	RUBBER	" COVERED & "
	BOILER ROOM	2	0.0600	19	.064	59	90	"	"
	GALLEY	2	0.2500	37	.093	229	258	"	"
	WIRELESS	2	0.0225	7	.064	9.7	72	RUBBER	LEAD COVERED & BRAIDED
	SEARCHLIGHT	2	0.1000	19	.083	80.0	135	"	"
	MASTHEAD LIGHT	2	0.0080	3	.036	0.9	556	"	LEAD ARMOURED & BRAIDED
	SIDE LIGHTS	2	0.0080	3	.036	0.9	126	"	" COVERED & "
	COMPASS LIGHTS	2	0.0080	3	.036	0.9	70	"	"
	POOP LIGHTS	2	0.0400	19	.052	10.4	690	"	"
	CARGO LIGHTS	2	0.0600	19	.064	44.0	250	"	" ARMOURED & BRAIDED
	ARC LAMPS	2	0.1200	37	.064	70.0	243	"	"
	HEATERS	2	0.1200	37	.064	70.0	243	"	"

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP	1	0.1500	37	.072	132	225	RUBBER	LEAD COVERED & BRAIDED
	MAIN BILGE LINE PUMPS	2	0.0750	19	.072	78	180 & 210	"	"
	GENERAL SERVICE PUMP	1	0.1000	19	.083	95	330	"	"
	EMERGENCY BILGE PUMP	1	0.1000	19	.083	95	330	"	"
	SANITARY PUMP	1	0.1000	19	.083	95	330	"	"
	CIRC. SEA WATER PUMPS	2	0.0750	19	.072	78	95 & 153	"	"
	CIRC. FRESH WATER PUMPS	2	0.0750	19	.072	78	95 & 153	"	"
	AIR COMPRESSOR	1	0.0400	19	.052	29	114	"	"
	FRESH WATER PUMP	1	0.0400	19	.052	29	114	"	"
	ENGINE TURNING GEAR	2	0.0400	19	.052	25	156 & 258	"	"
	ENGINE REVERSING GEAR	2	0.0400	19	.052	25	156 & 258	"	"
	LUBRICATING OIL PUMPS	2	0.0750	19	.072	78	84 & 102	"	"
	OIL FUEL TRANSFER PUMP	1	0.0750	19	.072	78	129	"	"
	WINDLASS	1	0.5000	61	.163	370	156	"	"
	WINCHES, FORWARD	2	0.1200	37	.064	130	108	"	LEAD ARMOURED & BRAIDED
	WINCHES, AFT	2	0.1200	37	.064	130	90	"	"
	STEERING GEAR	2	0.1000	19	.083	114	120	"	" COVERED & "
	WORKSHOP MOTOR	1	0.0225	7	.064	21	75	"	"
	VENTILATING FANS	1	0.0225	7	.064	21	195	"	"
	AUX. CIRCULATING PUMP	1	0.0225	7	.064	21	195	"	"
	REFRIGERATING MOTOR	1	0.0600	19	.064	60	186	"	"

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.

SCOTT'S SHIPBUILDING & ENGINEERING COMPANY, LIMITED

Alphon

Electrical Engineers.

Date 9-11-25

ELECTRICAL MANAGER

COMPASSES.

Distance between electric generators or motors and standard compass 35 FEET

Distance between electric generators or motors and steering compass 25 FEET.

The nearest cables to the compasses are as follows :-

A cable carrying .09 Ampères 1N feet from standard compass. 1N feet from steering compass.

A cable carrying 8 Ampères 12 feet from standard compass. 18 feet from steering compass.

A cable carrying 3 Ampères 6 feet from standard compass. 9 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.

SCOTT'S SHIPBUILDING & ENGINEERING COMPANY, LIMITED

J. Hutchison

Builder's Signature.

Date 9-11-25

Director.

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 on board under special survey tested under full working conditions and found satisfactory.

The workmanship was found to be good and sound.

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

J. S. Rankin 25/11/25

Total Capacity of Generators *416* Kilowatts

The amount of Fee ... £ *41-8-0* When applied for, *clerk*

Travelling Expenses (if any) £ *1-11-6* When received, *666*

J. S. Rankin
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 NOV 1925

Assigned *Elec. Light* *MA*

Im. 3.22.—Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)

88 16-11-26



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