

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 27 JUN 1927

Date of writing Report 19 When handed in at Local Office 25/6/27 Port of Newcastle-on-Tyne

No. in Survey held at Newcastle. Date, First Survey 18 March 26 Last Survey 16 May 1927
Reg. Book. (Number of Visits 49)

79781 on the M.V. Pecten

Tons { Gross 7725
Net 4450

Built at Newcastle. By whom built Palmers & Co Ltd. Yard No. 955 When built 1926

Owners Anglo Saxon Petroleum Co Ltd. Port belonging to London

Electric Light Installation fitted by Power by J.H. Holmes, Newcastle Contract No. 955 When fitted 1927

System of Distribution Two wire system

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 Yes, 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 Lighting start side of tween deck in Eng 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

Main Switch Boards, where placed (Lighting) start side of tween deck 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 Yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards

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 micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes

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

Lighting 150A. D.P.C.B. + fuses

for each generator interlocked with equalizer switch fitted with overload, reverse trip & time lags. 50A. D.P. 5 on each outgoing circuit.

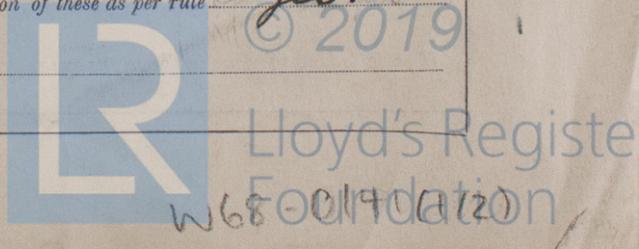
Instruments on main switchboard 2 ammeters 2 voltmeters — synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system earth lamps connected

Leath through switches & fuses

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



27 JUN 1927

Cables: Single, twin, concentric, or multicore single 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 40 lbs on lightning, 6 lbs on power

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 all main cables lead covered & armoured, carried along fore & aft gangway in pipe

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 none made

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 —, are their connections made as per Rule —

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 none fitted

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 hoods are liable to be stacked in close proximity to them; if so, how are they protected Yes fitted with glass shades & heavy metal 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 Yes, in pump room protected by stout glass hoods opened only from outside in galvanised iron pipe wholly outside

where are the controlling switches situated in acc. passage starboard side

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 Yes

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 Yes

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				Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amperes.	Eff. %			Fuel Used.	Flash Point of Fuel.
MAIN	3	32	110	241/266		Oil engines			
AUXILIARY	2	14	110	127		One oil engine & one steam engine.			
EMERGENCY									
ROTARY TRANSFORMER									

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	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.				
	MAIN GENERATOR	2	.4965	61	.103	241	118	V.I.R.	Lead cov + arm'd
	EQUALISER CONNECTIONS	2	.1168	37	.064	127	38	50	50
	AUXILIARY GENERATOR	2	.1168	37	.064	127	118	50	50
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM								
	BOILER ROOM	2	.01462	7	.052	30.54	30	V.I.R.	Lead cov + arm'd
	ACCOMMODATION	2	.06	19	.064	35.97	600	50	50
	Midship	2	.0396	19	.052	38.4	156	50	50
	50 + poop	2	.01462	7	.052	6.35	690	50	50
	Navigation	2	.02214	7	.064	8.27	1100	50	50
	Forecastle	2	.0396	19	.052	29.8	120	50	50
	Deck portables								
	WIRELESS	2	.00701	7	.036	13.5	300	50	50
	SEARCHLIGHT	2	.00194	3	.029	.9	510	50	Lead covered
	MASTHEAD LIGHT	2	.00194	3	.029	.9	486	50	50
	SIDE LIGHTS	2	.00194	3	.029	.9	135	50	50
	COMPASS LIGHTS	2	.00194	3	.029	.9	50	50	50
	STEAM LAMPS	2	.00299	3	.036	.9	840	50	Lead cov + arm'd
	CARGO LIGHTS	2	.003	70	.0076	3	50	50	Special arm & standard
	DECK LAMPS	2	.00194	3	.029	.9	60	50	Lead covered
	HEATERS								

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.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR	1	.1478	37	.072	157	260	V.I.R.	Lead cov + arm'd
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS	1	.1478	37	.072	146	40	50	50
	OIL FUEL TRANSFER PUMP	2	.06	19	.064	70	176 + 122	50	50
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR	2	.3024	37	.103	227	360	V.I.R.	Lead cov + arm'd
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	VENTILATING FANS								
	Refrigerator	1	.1009	19	.059	90	384	50	50
	Cooling water pump	1	.1964	37	.083	350	220	50	50
	Workshop Emergency	1	.00701	7	.036	18.0	30	50	50
	" Drilling	1	.02214	7	.064	26.0	40	50	50
	" Lathe	1	.01462	7	.052	26.0	30	50	50
	Oil Purifier	2	.01462	7	.052	23.8	84	50	50
	Vent Fan Motor	2	.01462	7	.052	26.0	36	50	50
	Fuel oil purifier	1	.00299	3	.036	8.0	100	50	50



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.

For J. H. HOLMES & CO Electrical Engineers.

Date 20/6/27

Overhaul (for Power Wiring)

COMPASSES.

W. Tomeroy (for Lighting, Steering & Refrigerating plant wiring)
 Palmers Shipbuilding Co. 24/6/27

Distance between electric generators or motors and standard compass 210 feet

Distance between electric generators or motors and steering compass 206 feet

The nearest cables to the compasses are as follows:—

A cable carrying .28 Amperes on the ~~foot~~ from standard compass 10 feet from steering compass.

A cable carrying .28 Amperes 7 feet from standard compass on the ~~foot~~ 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 degrees on course in the case of the standard

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



Builder's Signature. Date 24/6/27.

W. Tomeroy

SHIPYARD MANAGER

Is this installation a duplicate of a previous case *yes* If so, state name of vessel *M.V. Marhessa.*

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

The above installation is in accordance with the Society's Rules.
 The vessel is eligible in my opinion for notation *elec light*
unless

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

W.T. Badger
 27/6/27

Total Capacity of Generators 124 Kilowatts.

The amount of Fee ... £ 32.14 + { When applied for, 9/6/19.27

Travelling Expenses (if any) £ : : { When received, 20/6/19.27 *W.T.P.*

W.T. Badger
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec Light

Im. 1.26.—Transfer. (The Surveys are requested not to write on or beside the space for Committee's Minute.)



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