

Rpt. 13.

No.

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office MAR 17 1938

Date of writing Report 9/3 1938 When handed in at Local Office 10 Port of Rotterdam  
No. in Survey held at Kapelle De Yndt Date, First Survey 24/1/38 Last Survey 23/2 1938  
Reg. Book. ms. Kerlogue (Number of Visits 5)  
on the ms. Kerlogue Tons { Gross 335  
Net 171  
Built at Kapelle De Yndt By whom built Mons. A. Huyghe & Fils Yard No. 642 When built 1930  
Owners Wexford Steamship Co. Ltd Port belonging to Wexford  
Electric Light Installation fitted by M. V. Handelscompagnie Contract No. When fitted 1930  
Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution Double Wiring  
Pressure of supply for Lighting 32 V volts, Heating — volts, Power — volts.  
Direct or Alternating Current, Lighting Direct Current Power —  
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 temperature rise yes, are they compound wound no  
are they over compounded 5 per cent. —, if not compound wound state distance between each generator —  
Where more than one generator is fitted are they arranged to run in parallel no, is an adjustable regulating resistance fitted in series with each shunt field yes Have certificates of test results for machines under 100 kw. been submitted and approved — Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing —  
Have certificates for generators under 100 kw. been supplied and approved —  
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 fore and aft engine room portside, 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 BOXES Boards, where placed engine room starboard aft  
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 over 12" 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, is it of an approved type 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 —, is the non-hygroscopic insulating material of an approved type —, 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 good, absence of fuses on back of board yes, temperature rise of omnibus bars 10°C, individual fuses to voltmeter, pilot or earth lamp yes, are moving parts of switches alive in the "off" position no are all screws and nuts securing connections effectively locked yes are any fuses fitted on the live side of switches no  
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches both generators connected to change-over switch  
Are turbine driven generators fitted with emergency trip switch as per rule — Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material yes Instruments on main switchboard two ammeters one voltmeters — synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection —  
Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system one pair of earthlamps Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules. yes are the fusible cutouts of an approved type yes have the reversed

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current protection devices been tested under working conditions yes are all fuses labelled as per rule yes

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

**Cables:** Single, twin, concentric, or multicore single are the cables insulated and protected as per Tables IV, V, X, XI, XII or XIII of the Rules yes

If the cables are insulated otherwise than as per Rule, are they of an approved type yes **Fall of Pressure,** state maximum between bus bars and

any point of the installation under maximum load less than 2 1/2 **Cable Sockets,** are the ends of all cables having a sectional

area of 0.04 square inch and above provided with soldering sockets yes **Paper Insulated and Varnished Cambric Insulated Cables.**

If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with

insulating compound yes, or waterproof insulating tape 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 are cables laid under machines or floorplates no if so, are they adequately protected yes

Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit yes

**Support and Protection of Cables,** state how the cables are supported and protected the cables are laid on layers or in conduits

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 no If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII yes

**Refrigerated Chambers,** are the cables and fittings in accordance with the special requirements yes

**Joints in Cables,** state if any, and how made, insulated, and protected made in watertight brass boxes

**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 made by brass clips

or extra core for earthing purposes in the cable 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 yes

**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 yes

are they ventilated as per Rule 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 no

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected no

how are the cables led

where are the controlling switches situated in the engine room

are all fittings suitably ventilated yes, are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials yes

**Heating and Cooking Appliances,** are they constructed and fitted as per Rule yes, are air heaters constructed and fitted as per Rule yes

**Searchlight Lamps, No. of** one whether fixed or portable fixed, are their fittings as per Rule yes

**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 yes

if not of this type, state distance of the combustible material horizontally or vertically above the motors yes and yes

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing yes have certificates for all motors for

essential services been supplied and approved yes **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 are all fuses of the filled cartridge type yes are they of an approved type yes

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed flameproof type approved for use in dangerous spaces yes

**Spare Gear,** if the vessel is for open sea service have spares been supplied as per Rule yes are they suitably stored in dry situations yes

## PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	One	2.4	32-48	52	1000	Diesel engine	Diesel oil	above 150° F.
AUXILIARY	One	2.4	32-48	52	1000	Diesel engine		
EMERGENCY								
ROTARY TRANSFORMER								

## GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	One	2.5			52	64	28	rubber	The cable is
EQUALISER CONNECTIONS								surrounded	sheathed
AUXILIARY GENERATOR	One	2.5			52	64	40	by a	with pure
EMERGENCY GENERATOR								layer of	lead bedding
ROTARY TRANSFORMER								waterproof	of hessian
MOTOR GENERATOR								tape.	hose and
ENGINE ROOM								The rubber	paper.
BOILER ROOM								consisting	impregnated
AUXILIARY SWITCHBOARDS								of two	with oil and
								layers.	armoured
								The whole	with a single
								being	layer of
								unleaded	galvanised
								together	steelwire.
ACCOMMODATION	One	2.5			6	15	42		
Navigation	One	4			4	21	42		
WIRELESS									
SEARCHLIGHT	One	1.5			5	9.4	12		
MASTHEAD LIGHT	One	1.5			1	9.4	80		
SIDE LIGHTS	One	1.5			1	9.4	22		
COMPASS LIGHTS	One	1.5			1	9.4	12		
POOP LIGHTS	One	1.5			1	9.4	14		
CARGO LIGHTS	One	2.5			12	15	68		
HEATERS									

## MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
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										
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FANS										

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The Electrical Equipment is installed in accordance with the approved plans.

All Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

*J. Munro*

Electrical Engineers.

Date 25 - 2 - 38

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass about 30 ft.

Minimum distance between electric generators or motors and steering compass about 30 ft.

The nearest cables to the compasses are as follows:—

A cable carrying 0.5 Ampères 23 feet from standard compass 2 feet from steering compass.

A cable carrying 0.5 Ampères 23 feet from standard compass 3 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 nil degrees on every declination course in the case of the standard compass, and nil degrees on every declination course in the case of the steering compass.

X

*W. J. L. Shonker*

Builder's Signature.

Date

15/3/38

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 made and fitted in accordance with the approved plan Society's Rules and Builder's letter workmanship good, and upon completion tested as required and meets in my opinion the Committee's approval. The certificate of test of the generators will be forwarded when received from the builder.

Noted  
J. H. J.  
27.3.38

Total Capacity of Generators 4.0 Kilowatts. ..

The amount of Fee ...

£

f 60.-

When applied for,

16.3 1938

When received,

28/3 1938

Travelling Expenses (if any) £

28/3 1938

*W. J. L. Shonker*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

25 MAR 1938

Assigned

See Rot. 26650 J.E.



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Foundation