

FOR THE INFORMATION OF THE COMMITTEE

Rpt. 13.

No. 73548

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

27 JAN 1949

Date of writing Report 11<sup>th</sup> Jan 1949 When handed in at Local Office 18-1-1949 Port of GLASGOW

No. in Survey held at Glasgow Date, First Survey 6-12-48 Last Survey 17-12-1948  
Reg. Book. (No. of Visits 4)

55297 on the CITY OF EDINBURGH Tons Gross 8238 Net 3965

Built at Birkenhead By whom built Cammell Laird & Co. Ltd. Yard No. - When built 1938

Owners Ellerman Lines Ltd. Port belonging to Glasgow.

Additional Installation fitted by Messrs Barclay Curle & Co. Ltd When fitted 1948

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

Plans, have they been submitted and approved - System of Distribution Two wire Voltage of Lighting 220

Heating - Power 220 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Are turbine emergency governors fitted

with a trip switch Generators, are they compound wound, and level compounded under working conditions

if not compound wound state distance between generators and from switchboard Are the generators arranged to run

in parallel, are shunt field regulators provided Is the compound winding connected to the negative or positive pole

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 and the results found as per Rule

Position of Generators

is the ventilation in way of generators satisfactory are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil Switchboards, where are main switchboards placed Additional panel fitted to

port end of main switchboard: Sub switchboard in special compartment near refrigeration machinery

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

steam and oil Yes, what insulation is used for the panels Slate if of synthetic insulating

material is it an Approved Type - if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as

per Rule Yes Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches

and the switch and fuse gear (or circuit breakers) for each outgoing circuit For Refrigeration Sub-switchboard: 400 Amp

D.P. Circuit-breaker fitted with overload trip For Refrig. Lighting: 60 Amp D.P. switch and

fuses

are compartments containing switchboards composed of fire-resisting material or lined as per Rule Instruments on main switchboard

ammeters voltmeters synchronising devices For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection Earth Testing, state means provided

switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes

type of fuses Arctic, are all fuses labelled Yes If circuit breakers are provided for the generators, at what

load do they operate, and at what current do the reversed current protective devices operate

Control Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

boards, are they insulated and protected as per Rule Yes, if otherwise than as per Rule are they of an Approved Type -

the maximum fall of pressure between bus bars and any point under maximum load 8.7 Volts are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Yes Are all paper insulated and varnished cambric insulated

ends sealed at the ends Yes Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil,

temperatures or risk of mechanical damage Yes, are any 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 -

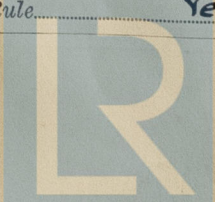
of the "HR" type - State how the cables are supported or protected Clipped to steel tray or structure:

covered with steel plate where necessary

all lead sheaths, armouring and conduits effectually bonded and earthed Yes Are all cables passing through decks and watertight

heads provided with deck tubes or watertight glands Yes, where unarmoured cables pass through beams, etc., are the holes

thoroughly bushed Yes Refrigerated chambers, are the cables and fittings as per Rule Yes



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Alternative Lighting, are the groups of lights in the engine and boiler rooms controlled by separate double pole switches and fuses. Are the switches and fuses in the engine and boiler rooms controlled by separate double pole switches and fuses.

Navigation Lamps, are they separately wired. Is an alternative supply provided.

a position accessible only to the officers on watch. Is an automatic indicator fitted. Is an alternative supply provided.

are they adequately ventilated.

Secondary Batteries, are they constructed and fitted as per Rule \_\_\_\_\_, are they adequately ventilated \_\_\_\_\_  
state battery capacity in ampère hours \_\_\_\_\_ and engine rooms and wherever exposed to drip or condensed moisture, weatherproof \_\_\_\_\_ Yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof.....

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present? Yes

If so, how are they protected? by a glass shield Are all fittings suitably ventilated? Yes

Are any of the fittings of the filament type? No

[illegible]

**Searchlight Lamps**, No. of \_\_\_\_\_, whether fixed or portable \_\_\_\_\_, are they of the carbon arc or of the filament type \_\_\_\_\_, are heaters in the \_\_\_\_\_, are the frames effectually earthed \_\_\_\_\_, general construction as per Rule \_\_\_\_\_, and installed as per Rule and placed in well-ventilated \_\_\_\_\_.

Searchlight Lamps, No. of \_\_\_\_\_, whether fixed or portable \_\_\_\_\_, are the frames effectively earthed \_\_\_\_\_.

Heating and Cooking, is the general construction as per Rule \_\_\_\_\_.

\_\_\_\_\_ Motors, are all motors constructed and installed as per Rule and placed in well-ventilated \_\_\_\_\_.

\_\_\_\_\_ of the convection type \_\_\_\_\_.

\_\_\_\_\_ protected from damage from water, steam and oil \_\_\_\_\_.

Yes

Heating and Cooking, is the general construction of the engine compartment..... Motors, are all motors constructed and installed..... Yes  
accommodation of the convection type.....  
compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil.....  
..... pumps capable of being stopped from a position accessible in the event of fire in the pump room.....  
..... manufacture and testing.....

Are motors coupled to oil fuel transfer and 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 motors of 100 BHP and over been supplied and the results found as per Rule.....

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and repair?.....

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule.....

Rule Yes..... Lightning Conductors, where required are they fitted as.....

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied ☐ ☒   
 Control Gear and Resistances, are they constructed and fitted as per Rule Yes Lightning Conductors, where required are they fitted as   
 Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with ☐ ☒ Are the fittings for pumps

Control Gear and Resistances, are they constructed and fitted as per Rule..... Have all the special requirements of the Rules for such ships.....

Rule..... Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships..... Are the fittings for pressure.....

..... Are all fuses of an Approved Cartridge Type....., make of fuse..... Are the cables lead covered as per Rule.....

Rule..... Ships carrying Oil having a Flash Point....., make of fuse.....  
 complied with....., are all fuses of an Approved Cartridge Type..... Are the cables lead covered as per Rule.....  
 ....., in accordance with the special requirements for such ships..... and receiver..... Yes

rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. \_\_\_\_\_ and receiver. \_\_\_\_\_  
E.S.D., if fitted state maker. \_\_\_\_\_ location of transmitter. \_\_\_\_\_ Yes  
\_\_\_\_\_ have spares been provided as per Rule and suitably stored in dry situations. \_\_\_\_\_ Yes

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations..... Yes

Insulation Tests; has the insulation resistance of all circuits and apparatus been tested and found satisfactory.

**PARTICULARS OF GENERATING PLANT.**

**PRIME MOVER.**

PRIME MOVER.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT			TYPE.	MAKER.
			Kilowatts per Generator.	Volts.	Ampères.		
MAIN ...							
EMERGENCY ...							
ROTARY							
TRANSFORMER							

## COVERING

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..								
" " EQUALISER ... ..								
...								
...								
...								
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
GENERATOR ... ..								
" " ... ..								

DESCRIPTION.

DESCRIPTION	2	37/.083	400	628	64	Y.C.	"
Refrigeration Sub-switchboard	1	7/.064	33	46	88	"	"
Lighting Section Box	1	7/.036	7	24	120	Y.I.R.	L.C.
" D.B. Ford. No1	1	7/.036	5	24	6	"	"
" " No2	1	7/.036	7	24	260	"	"
" Mid.	1	7/.044	14	31	350	"	"
" Aft.	1						

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ALL IMPORTANT MOTORS TO BE  
ENUMERATED.

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	No.	B.H.P.							
Refrig. Fans	1	1.0	1	7/029	5	15	280	V.I.R.	L.C.
" "	2	3.6	1	7/036	15	24	400	"	"
" "	6	5 1/4	1	7/044	23	31	380	"	"
" "	2	5 3/4	1	7/044	25	31	400	"	"
Brine Pumps	3	12	1	19/052	48	64	72	"	"
Force Pump	1	3 3/4	1	7/036	17	24	48	"	"
Wax. Compressor	1	15	1	19/064	66	83	260	"	"
Circulating Pump.	1	1	1	7/029	5	15	400	"	"



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.

Electrical Contractors. Date

COMPASSES.

Have the compasses been adjusted under working conditions

Builder's Signature. Date

Have the foregoing descriptions and schedules been verified and found correct

Is this installation a duplicate of a previous case

Plans. Are approved plans forwarded herewith

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

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

The additional equipment, consisting of a new switchboard section, sub-switchboard, refrigeration motors, control gear, cables and lighting circuits, was installed under Special Survey, tested under full working conditions, and found satisfactory.

The materials and workmanship are good

Total Capacity of Generators Kilowatts.

Refrigeration Sub-switchboard & RMC.  
The amount of Fee

When applied for,

When received,

Travelling Expenses (if any) £

Committee's Minute

Assigned

See Rpt. 17.