

23 OCT 1963

Rpt. 13

No. FE.180

REPORT ON ELECTRICAL EQUIPMENT

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 19. 9. 19. 63. When handed in at Local Office 19 Port of GLASGOW

No. in Survey held at Greenock Date, First Survey 24.7.63 Last Survey 16.9.1963
Reg. Book (No. of Visits 3)

on the m.v. "RAYLIGHT" Tons Gross 177 Net 73

Built at Greenock By whom built Scotts' S.B. & E. Co. Ltd. Yard No. 695 When built 1963

Owners Ross & Marshall, Greenock Port belonging to Greenock

Installation fitted by Scotts' S.B. & E. Co. Ltd. When fitted 1963

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

Plans, have they been submitted and approved Yes System of Distribution Two wire insulated Voltage of Lighting 110

Heating 110 Power 110 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 Yes Are turbine emergency governors fitted

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

Are the generators arranged to run in parallel No Is the compound winding connected to the negative or positive pole Negative

Have machines 100 kw. and over 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 Yes Position of Generators E/R Port Aft and Forward

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

damage from water, steam and oil Yes Switchboards, where are main switchboards placed E/R Port Aft

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

for each generator and arrangement of equaliser switches 63 Amp D.P. Moulded Case C.B.'s with O/L Release

and the switch and fuse gear (or circuit breakers) for each outgoing circuit D.P. Changeover Switches and Rewirable Fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 2

ammeters 2 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reverse current

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

Earthed Lamps Preference Tripping, state if provided No, and tested -

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

make of fuses M.E.M. "Kantark" are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate Rewirable 150% F.I.C., and at what current do the reverse current protective

devices operate - Cables, are they insulated and protected as per Rule 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 Less than 6% volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends -

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 any cables laid under machines or floorplates Yes, if so, are they adequately protected Yes State

type of cables (if in conduit this should also be stated) in machinery spaces Butyl L.C. or P.C.P., galleys Butyl P.C.P. & B

and laundries - State how the cables are supported or protected Clipped to solid or perforated

steel tray, run in pipes or conduit or clipped direct to ship's structure

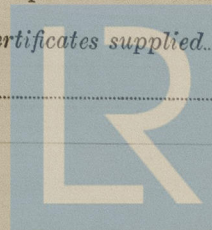
Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes Are all cables passing through decks and watertight

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

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

Have refrigeration fan motors been constructed under survey - and test certificates supplied

Are the motors accessible for maintenance at all times -



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Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule.....Yes..... Emergency Supply, state position

Navigation Lamps, are they separately wired.....Yes.....controlled by separate double pole switches 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..... Is an alternative supply provided.....Yes.....

Secondary Batteries, are they constructed, fitted and adequately ventilated as per Rule _____, state battery capacity in ampère hours _____ Where required to do so does it comply with 1948 International Convention _____

Lighting, is fluorescent lighting fitted No If so, state nominal lamp voltage 120 and compartments where lamps are fitted 1

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof
Yes except E/R which are drip-proof

Searchlights, No. of _____, whether fixed or portable _____, are they of the carbon arc or of the filament type _____

Heating and Cooking, is the general construction as per Rule.....**Yes**....., are the frames effectually earthed.....**Yes**....., are heaters in the accommodation of the convection type.....**Yes**..... Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil.....**Yes**.....

Have 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..... **Yes**..... 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 sea services been supplied and the results found as per Rule..... **Yes**.....

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

ships carrying Oil, having a Flash Point of less than 150° F. Have all the special requirements of the Rules for such ships been complied with _____, are all fuses of an Approved Cartridge Type _____, make of fuse _____ Are the fittings for pump _____

oms, 'tween deck spaces, etc., in accordance with the special requirements for such ships..... Are all cables lead covered as per Rule.....

S.D., if fitted state maker location of transmitter and receiver

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

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	MAKER	RATED AT				PRIME MOVER	
			Kw. per Generator	Volts	Ampères	Revs. per Min.	TYPE	MAKER
MAIN	1	B.K.B. Electric Motors Ltd. (Belt driven from M.E.)	5	110	45.5	1000/ 2500	Oil	Crosseley
	1	B.K.B. Electric Motors Ltd.,	5	110	45.5	1500	Oil	R.A. Lister
EMERGENCY ...								
ROTARY								
TRANSFORMER								

GENERATOR CABLES

DESCRIPTION	No. of	Kw.	CONDUCTORS		MAXIMUM CURRENT IN AMPERES		APPROX. LENGTH (feet 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 (Belt driven) ...	1	5	1	7/064	45.5	78	Butyl	PCP & B	
" " EQUALIZER ...	1	5	1	7/052	45.5	60	Butyl	PCP & B	
EMERGENCY GENERATOR ...									
ROTARY TRANSFORMER: MOTOR									
" " GENERATOR ...									

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.)

DISTRIBUTION CABLES (to Section-Boards and Distribution-Fuse-Boards, etc.)

[illegible]

MOTOR CABLES

ALL IMPORTANT MOTORS TO BE ENUMERATED	No.	B.H.P.						
Gear Box S.B.L.O. Pump	1	3	1	7/036	27	38	Butyl	PCP & B
F.O. Transfer Pump	1	1	1	3/036	10	23	Butyl	PCP & B
Fire & Bilge S.B. Pump	1	3	1	7/036	27	38	Butyl	PCP & B
Domestic F.W. Pump	1	1	1	3/036	10	23	"	"

NOTE.—Use Rpt. 13 Continuation Sheet if the above space is insufficient

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.

J. D. [Signature]

Electrical Contractors.

Date 10/10/63.

COMPASSES

Have the compasses been adjusted under working conditions

SCOTT'S SHIPBUILDING & ENGINEERING CO., LTD.

J. D. [Signature]

Builder's Signature.

Date 10/10/63

Shipbuilding Manager

Have the foregoing descriptions and schedules been verified and found correct..... Yes

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

Plans. Are approved plans forwarded herewith..... No If not, state date of approval..... 23.5.63.

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

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.).....

The electrical installation has been fitted on board this vessel under Special Survey, tested under working conditions and found to be satisfactory.

The materials used are of good quality and the workmanship is good.

The installation is, in my opinion, suitable for a classed vessel.

(The Surveyors are requested not to write on or below the space for Committee Minute.)

Total Capacity of Generators..... 10 Kilowatts.

The amount of Fee ... £ 15 : - : When applied for,

19

When received,

19

Travelling Expenses (if any) £ 3 : - :

Surveyor to Lloyd's Register of Shipping

(M. R. HATTON)

Committee's Minute.....

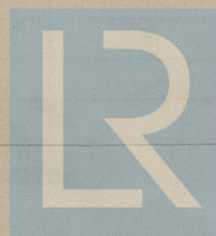
GLASGOW

22 OCT 1963

Assigned.....

Date entry made in REB.

Surveyor's Initials.



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