

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

18 MAY 1944

Received at London Office.....

Date of writing Report. 22 APRIL 1944 When handed in at Local Office. 9.5.1944 Port of GLASGOW

No. in Survey held at PORT GLASGOW Date, First Survey 14.1.44 Last Survey 27.4.1944
Reg. Book. (Number of Visits.....6.....)39952 on the M.V. TREYDER Tons { Gross 7376
Net 5133

Built at PORT GLASGOW By whom built LITHGOWS LTD Yard No. 986 When built 1944

Owners HAIN S.S. CO. LTD Port belonging to LONDON

Electrical Installation fitted by SUNDERLAND FORGE & ENGINEERING CO. LTD Contract No. 986 When fitted 1944

Is vessel fitted for carrying Petroleum in bulk. — Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. — Sub.Sig. —

Have plans been submitted and approved. Yes System of Distribution Two wire lead & return Voltage of supply for Lighting 110

Heating. — Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state periodicity — Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off. Yes Are turbine emergency governors fitted with a

trip switch as per Rule — Generators, are they compound wound. Yes, are they level compounded under working conditions. Yes

if not compound wound state distance between generators. — and from switchboard. — Where more than one generator is fitted are they

arranged to run in parallel. No, are shunt field regulators provided. Yes Is the compound winding connected to the negative or positive pole

Negative 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. Yes and the results found as per rule. Yes Are the lubricating arrangements and the construction

of the generators as per rule. Yes Position of Generators In engine room, Port side.

, is the ventilation in way of generators satisfactory. Yes are they clear of inflammable material. Yes, if situated

near unprotected combustible material state distance from same horizontally. — and vertically. —, are the generators protected from mechanical

injury and damage from water, steam and oil. Yes, are the bedplates and frames earthed. Yes and the prime movers and generators in metallic

contact. Yes Switchboards, where are main switchboards placed In engine room near generators

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

and oil. Yes, if situated near unprotected combustible material state distance from same horizontally. — and vertically. —, what insulation

material is used for the panels. Sindamfo, 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 frame effectually earthed. Yes

Is the construction as per Rule. Yes, including accessibility of parts. Yes, absence of fuses on the back of the board. Yes, individual fuses

to pilot and earth lamps, voltmeters, etc. Yes locking of screws and nuts. Yes, labelling of apparatus and fuses. Yes, fuses on the "dead"

side of switches. Yes Description of Main Switchgear for each generator and arrangement of equaliser switches.

1 - 150 AMPERE D.P. Knife pattern switch with fuses.

and for each outgoing circuit 60 AMPERE & 30 AMPERE D.P. Change over switches with 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 is the ammeter connected on the pole opposite to the

equaliser connection. — Earth Testing, state means provided. Earth lamps.

Switches, Circuit Breakers and Fuses, are they as per Rule. Yes, are the fuses an approved type. Yes, are all fuses labelled as

per Rule. Yes If circuit breakers are provided for the generators, at what overload current did they open when tested. —, are the reversed current

protection devices connected on the pole opposite to the equaliser connection. —, have they been tested under working conditions, and at what current

did they operate. — Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule. Yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules. Yes, if otherwise than as per Rule are they of an approved type. W.E.

state maximum fall of pressure between bus bars and any point under maximum load. —, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets. Yes Are paper insulated and varnished cambric insulated cables sealed at the ends. Yes

LIGHTING 5 VOLTS.
POWER 4.5 VOLTS.

Are paper insulated and varnished cambric insulated cables sealed at the ends. Yes

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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.
MAIN	2	15 ✓	110	136.5	850 ✓	STEAM ENGINE	
EMERGENCY							
ROTARY TRANSFORMER							

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 ...	2	15 ✓	110	136.5	850 ✓	STEAM ENGINE		
EMERGENCY ...								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the	Rule.			
				Circuit.				
MAIN GENERATOR	15	1	19/064	136.5	135	50	V.C.	L.C.
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" "								
GENERATOR								

[illegible]

WIRELESS	1	7/064	15	46 ✓	486	W.E.	In steel pipe.
NAVIGATION LIGHTS	2	7/064	126	20 ✓	130	W.E.	In steel pipe.
LIGHTING AND HEATING							
FORWARD CARGO D.B.	4	7/064	15.6	40 ✓	274	W.E.	In steel pipe.
CREW QUARTERS & FIT CARGO	1	7/064	30	46 ✓	258	W.E.	In steel pipe.
CREW QUARTERS LIGHTING D.B.	1	7/064	16	46 ✓	174	W.E.	In steel pipe.
SALOON D.B.	1	7/044	22	31 ✓	10	W.E.	L.C.
ENGINEERS LIGHTING D.B. PORT	1	7/036	14	24 ✓	10	W.E.	L.C.
ENGINEERS LIGHTING D.B. STBD	1	7/036	13	24 ✓	80	W.E.	L.C.
ENGINE ROOM LIGHTING D.B.	1	7/044	15	31 ✓	70	W.E.	L.C.
ENGINE ROOM POWER D.B.	1	7/064	61	75 ✓	175	V.C.	L.C.

ALL IMPORTANT MOTORS TO BE EXUMERATED.	No.	B.H.P.							
DOMESTIC REFRIGERATOR	1	3	4	1/064	27.5	40 ✓ 416	W.E.	In steel pipe	
N°1 OIL PURIFIER:	1	2	1	7/036	17.5	24 ✓ 50	W.E.	L.C.	
N°2 OIL PURIFIER:	1	2	1	7/036	17.5	24 ✓ 50	W.E.	L.C.	
WORKSHOP MOTOR	1	3	1	7/044	26	31 ✓ 75	W.E.	L.C.	

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.

P.Pro. THE SUNDERLAND FORGE & ENGINEERING CO. LTD.

Electrical Engineers.

Date 4th May 1944.

COMPASSES.

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

Minimum distance between electric generators or motors and steering compass 26 feet.

The nearest cables to the compasses are as follows:—

A cable carrying 12.6 Ampères 9 feet from standard compass 7 feet from steering compass.

A cable carrying 23 Ampères led into ~~feet from~~ standard compass led into ~~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 any course in the case of the standard compass, and nil degrees on any course in the case of the steering compass.

LITHGOWS LIMITED

p. J. G. G. G.

Builder's Signature.

Date 8th May 44

Is this installation a duplicate of a previous case Yes If so, state name of vessel M.V. 'TREYANION'

Plans. Are approved plans forwarded herewith No If not, state date of approval 12/8/43

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

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

The electrical equipment of this vessel has been fitted on board under Special Survey, tested under working conditions and found satisfactory.
The materials and workmanship are good.

Notes

FRU

22.5.44

Total Capacity of Generators 30 Kilowatts.

The amount of Fee ... £ 22 : 10 : When applied for, at 19.

Travelling Expenses (if any) £ 1 : 13/6 When received, at 19.

Committee's Minute GLASGOW 16 MAY 1944

Assigned Su G. G. 22688

M. J. G. G.
Surveyor to Lloyd's Register of Shipping.



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Foundation