

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report... 31st Aug 42 When handed in at Local Office... 1 SEP 1942 Port of... Sunderland

No. in Survey held at... Sunderland Date, First Survey... 1st June Last Survey... 26th Aug 1942
Reg. Book. and Wallace and73464 on the S.S. "EMPIRE THACKERAY" Tons { Gross... 2865
Net... 1690

Built at... Sunderland By whom built... Sir J. Laing & Co., Ltd. Yard No. 744 When built... 1942

Owners... Ministry of War Transport Port belonging to... Sunderland

Electrical Installation fitted by... The Sunderland Eng. & Eng. Co. Ltd. Contract No. 744 When fitted... 1942

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

Have plans been submitted and approved... System of Distribution... 2w wire immersed Voltage of supply for Lighting... 110

Heating... Power... 110 Direct... Alternating Current, Lighting... Power... 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... Are turbine emergency governors fitted with a

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

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... are shunt field regulators provided... 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... and the results found as per rule... Are the lubricating arrangements and the construction

of the generators as per rule... Position of Generators... engine room starboard side

is the ventilation in way of generators satisfactory... are they clear of inflammable material... 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... are the bedplates and frames earthed... and the prime movers and generators in metallic

contact... Switchboards, where are main switchboards placed... engine room starboard side

near generating sets

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

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

material is used for the panels... 'Evoxy Linenup'... 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... Is the frame effectually earthed...

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

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

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

knife switch and double pole fuse.

and for each outgoing circuit... double pole double throw knife switch and

double pole fuse.

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

ammeters... 2w 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... 2 lamps connected to E. through 2w. fuses.

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

per Rule... 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...

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

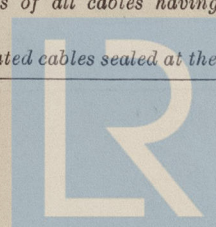
state maximum fall of pressure between bus bars and any point under maximum load... 4.44, are the ends of all cables having a sectional area of 0.04

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

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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.	Flash Point of Fuel.
MAIN	2	12.5	110	113.5	850	Single cylinder steam engine		
EMERGENCY								
ROTARY TRANSFORMER								

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GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (feet plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATORs	2 x 12.5	1	19/064	113.5	135	400.70	V.C.	L.C. In pipe
" " EQUALISER								
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

[illegible]

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS
NAVIGATION LIGHTS	AB. (Off Dwd. A.B.)	1	19/052	15	64	160	V.I.R.	In pipe & L.C.
		1	1/064	6	10	60	20.	L.C.
LIGHTING AND HEATING								
Att. Nav. Stand.	} Off Dwd. A.B.	1	1/064	6	10	60	20.	20.
Regr. Nav. Stand. AB.		1	7/029	8	15	4	20.	20.
Dwd. Stand. AB.		1	7/044	8	31	160	20.	In pipe
Regr. Mast Lantern		1	1/064	5	10	30	20.	L.C.
L.B. Ball Changing		1	1/064	5	10	60	20.	20.
Alarm Bell Changing	} Off Engine A.B.	1	1/064	5	10	60	20.	20.
Offs. Stand. AB.		1	7/044	15	31	24	20.	20.
Mast. Lantern		1	1/064	5	10	140	20.	In pipe
Regr. Fan		1	1/064	3	10	100	20.	20.
Engine Wpt. Changing		1	7/029	10	15	100	20.	L.C.
Att. Stand. AB.	} In pipe	1	7/044	12	46	320	20.	In pipe
Engine Rm. Stand. AB.		1	7/044	10	31	60	20.	L.C. & A.B.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.
Racing type.	2	1 1/2 x 3/4
	1	7/8 x 1/4
		14 x 7/6
		31
		120
		V.I.R.
		In pipe

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.

Sunderland Forge & Eng Co Ltd.
W. J. Gurney

Electrical Engineers.

Date *31-8-1942*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *64 feet*

Minimum distance between electric generators or motors and steering compass *60 feet*

The nearest cables to the compasses are as follows:—

A cable carrying *.14* Ampères *on the* ~~from~~ standard compass *7* feet from steering compass.

A cable carrying *.14* Ampères *7* feet from standard compass *on the* ~~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 *his* degrees on *Every* course in the case of the

standard compass, and *his* degrees on *for Every* of course in the case of the steering compass.

SIR JAMES LANE & SONS LIMITED

Builder's Signature.

Date *1st Sept/42*

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 *11/5/42*

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 installed under special survey and is in accordance with the approved plans and with the specification. The materials used are of good quality and the workmanship is good. On completion the equipment was run under working conditions with satisfactory results and the insulation resistance of all circuits was measured and found good. This equipment is in my opinion suitable for a stressed vessel.

Noted

SEP

4/9/42

Total Capacity of Generators *25* Kilowatts.

The amount of Fee ... £ *25* : - : When applied for, *SEP 18 1942*

inc. expenses. Travelling Expenses (if any) £ : : When received, *19*

G. Harrison

Surveyor to Lloyd's Register of Shipping.

FRL 18 SEP 1942

Committee's Minute

Assigned

See Ald. 86 33477