

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office... 7 JUL 1941

Date of writing Report... 30.6.41 When handed in at Local Office... 5th July 1941 Port of... Sunderland

No. in Survey held at... Sunderland Date, First Survey... 4th June Last Survey... 20th June 1941  
Reg. Book. Supp. (Number of Visits... 8)

87769 on the M.V. Daltonhall Tons { Gross... 7253 Net... 5022

Built at... Sunderland By whom built... Wm. Doxford & Sons Ltd. Prod No. 672 When built... 1941

Owners... The West. Harleford Steam & C. Ltd. Port belonging to... West. Harleford.

Electrical Installation fitted by... Campbell & John Wood Ltd. Contract No. 672 When fitted... 1941

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

Have plans been submitted and approved... System of Distribution... Two-Wire insulated Voltage of supply for Lighting... 110 V.

Heating... 110 Power... 110 Direct or Alternating Current, Lighting... Yes Power... Yes 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... and the results found as per rule... Are the lubricating arrangements and the construction

of the generators as per rule... Yes Position of Generators... Engine room Starboard side aft.

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... Engine room Starboard side near

Generating sets

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... Heavy Sindangas, 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... A double pole

Circuit-breaker with overload trip on each pole and time-lag device

and for each outgoing circuit... A double pole, double throw, quick-break Knife switch and

double pole fuse.

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

ammeters... Two 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 coupled to "E" through fuses

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... 150 A, are the reversed current

protection devices connected on the pole opposite to the equaliser connection... none fitted, 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... Yes

state maximum fall of pressure between bus bars and any point under maximum load... 4.4 V, 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

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	600	Single Cylinder Steam Engines		
EMERGENCY ...	1	10	110	91	1000	Pelapone 2-Cylinder Diesel	Kennard 9/58	22 Kw. 9/5
ROTARY TRANSFORMER								

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead 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 GENERATOR ... ..	2 x 15	1	19/-083.	136.5	191 ✓	90x80	V.C.	L.C. + B
" " EQUALISER ... ..	1 x 10	1	19/-083	91	191 ✓	180	V.C.	L.C. + B
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

[illegible]

DESCRIPTION	QTY	UNIT PRICE	TOTAL	REMARKS
WIRELESS	1	7.064	15	46
NAVIGATION LIGHTS	1	7.044	6	31
LIGHTING AND HEATING				
Saloon and Captain's D.B.'s	1	7.064	20	46
Engineers 4 1/2 D.B.	1	7.044	15	31
Gal. Lighting D.B.	1	7.044	10	31
Cargo 4 1/2 Section D.B.	1	7.064	25	46
Engine and Blk. Rm D.B.	1	7.044	24	31

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Refrigerator Motor	1		1	7/044	16	31	400	V-1-R	In H. 4. Conduit
Crane Motor	1	3	1	7/044	25	31	100	V-1-R	" "
Workshop Motor	1	2	1	7/044	20	31	180	V-1-R	" "
Priming Pump Motor	1	1.5	1	7/044	15	31	160	V-1-R	" "
Boiler Rm. Fan Motor	1	5	1	7/064	41.5	46	200	V-1-R	" "
Oil Separator Motor	1	3	1	7/044	25	31	160	V-1-R	" "
" " " 2	1	3	1	7/044	25	31	160	V-1-R	" "

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.

CAMPBELL & ISHERWOOD, LTD.

Thomas Muir

Electrical Engineers.

Date 4th July 1941

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 124 feet

Minimum distance between electric generators or motors and steering compass 120 feet

The nearest cables to the compasses are as follows:—

A cable carrying 14 Ampères 2 ft from standard compass 7 feet from steering compass.

A cable carrying 14 Ampères 7 feet from standard compass 2 ft 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 course in the case of the

standard compass, and nil degrees on every course in the case of the steering compass.

WILLIAM DOXFORD & SONS, Limited,

B. J. Fletcher

Builder's Signature.

Date 5/7/41

Is this installation a duplicate of a previous case Yes If so, state name of vessel "Empire Mist"

Plans. Are approved plans forwarded herewith If not, state date of approval 14-2-40

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

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 in accordance with the approved plans, and the Ministry of Shipping Specification and amendments thereto. 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 classed vessel.

Noted

L. J.

8/7/41

Total Capacity of Generators 40 Kilowatts.

The amount of Fee ... £25 : 0 : When applied for, 1. 7. 19. 41

Travelling Expenses (if any) £ : : When received, 3. 7. 19. 41

L. J. Muir

Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 11 JUL 1941

Assigned

See Std. JE 33/35



© 2020

Lloyd's Register Foundation