

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

APR -1 1941

Received at London Office.

Date of writing Report. 18th Mar, 1941. When handed in at Local Office. 31 MAR 1941. Port of Sunderland

No. in Survey held at Sunderland Date, First Survey 11th Feb, Last Survey 25th Mar, 1941
Reg. Book. Suppl. (Number of Visits. 8)

87993 on the M.V. "EMPIRE MIST" Tons { Gross 7,241. Net 5,069

Built at Sunderland By whom built Wm. Douglas & Co., Ltd. Yard No. 669 When built 1941

Owners. Ministry of Shipping Port belonging to Sunderland

Electrical Installation fitted by Campbell & Denwood, Ltd. Contract No. 669 When fitted 1941

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

Have plans been submitted and approved. Yes System of Distribution. Bundle wire Voltage of supply for Lighting. 110

Heating. Power. 110 Direct or Alternating Current, Lighting. Yes Power. Yes If Alternating Current state frequency. Prime Movers,

has the governing been tested and found efficient when the whole 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. Certificates destroyed as a result of enemy action 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 on

aft in bulkhead 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. "Sindamp" 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. Double pole

main circuit breakers with overload trips and time lag device.

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. 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. E lamps connected to E through fuses.

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	600	Single cylinders		
						Steam engines		
EMERGENCY ...								
ROTARY TRANSFORMER								

[illegible]

MOTOR CABLES.											
ALL IMPORTANT MOTORS TO BE ENUMERATED.		No.	B.H.P.								
Oil Separator	See	2	3	1	7/0444	25.1	31	✓	160	V.I.R.	In pipe
Oil Running Fan	See	1	5	1	7/0444	41.5	46	✓	200	V.I.R.	In pipe
Pressing Pump	See	1	1.5	1	7/0444	13.5	31	✓	160	V.I.R.	In pipe
Crane		1	3	1	7/0444	25	31	✓	100	V.I.R.	In pipe
Workshop		1	2	1	7/0444	18	31	✓	180	V.I.R.	In pipe
Refing. Mfg.		2	27.75	1	7/0444	19.8	31	✓	400	V.I.R.	In pipe

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

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.

PER Thomas Meade Electrical Engineers.

Date 20th March 1941

COMPASSES. The undermentioned deviations are those due to the electrical equipment described herein only.

Minimum distance between electric generators or motors and standard compass 12 1/2 feet

Minimum distance between electric generators or motors and steering compass 12 1/2 feet

The nearest cables to the compasses are as follows:—

A cable carrying 1 1/4 Ampères on the feet from standard compass 7 feet from steering compass.

A cable carrying 1 1/4 Ampères 7 feet from standard compass on the 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 Every course in the case of the

standard compass, and Nil degrees on Every course in the case of the steering compass.

WILLIAM DOUGLASS & SONS, Limited,

W. D. D. D. D. Builder's Signature.

Date 27/3/41

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

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. The materials used are of good quality and the workmanship is good. On completion the equipment was operated under working conditions with satisfactory results, the insulation resistance of all circuits was measured and found good and the overload trips of the circuit breakers were adjusted and tested satisfactorily. This equipment is in my opinion suitable for a classed vessel.

Noted.

27/3/41

Total Capacity of Generators 30 Kilowatts.

The amount of Fee £ 28 : 2/6 When applied for, 25th March 1941

Travelling Expenses (if any) £ : : 31st March 1941 When received, None

Stanton

Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 22 APR 1941

Assigned See Sld. J.E. 33067