

18 AUG 1948

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report. 25-7-48 When handed in at Local Office. 3-8-48 Port of Liverpool

No. in Survey held at Liverpool Date, First Survey 27/6/48 Last Survey 14/7/48  
Reg. Book. (Number of Visits.....)

30377 on the M.V. "OAKMORE" Tons (Gross. 4700 Net. 2662)

Built at Gdren By whom built Nordsee-Werke Gdren G.M.B.H. Yard No. When built 1939

Owners Johnston &amp; Warran Ltd Port belonging to Liverpool

Electrical Installation fitted by Senius-Schuckertwerke A.G. Contract No. When fitted 1939

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

Have plans been submitted and approved. System of Distribution Single wire with hull return Voltage of supply for Lighting 220/230

Heating 220/230 Power 225/230 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. Yes, 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 in main engine room.

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 main engine room.

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. Distribution panels. Marble, 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. No Is the frame effectually earthed. Yes

Is the construction as per Rule. including accessibility of parts. Yes absence of fuses on the back of the board. No of fuses behind

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. Single pole circuit

breakers &amp; interlocked equaliser switch. Breakers fitted with overload &amp; reverse current

links

and for each outgoing circuit. Single pole switch and fuse.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Instruments on main switchboard. 8

ammeters. 4 voltmeters. synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection. Yes Earth Testing, state means provided. None. Single wire system.

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. 100% are the reversed current

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

did they operate. 100% R.C. 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. 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



GENERATOR CABLES.									
DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TION 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 ... .. (A)	100	1	9 1/103	455	461	60	Rubber	L. C.	
" " EQUALISER ... .. (B)(C)	100	2	3 7/103	435	440	40	"	L. C. A.	
" " " " " " (D)	150	1	9 1/103	682	738	60	V. C.	L. C.	
" " " " " " (E)	150	1	9 1/103	682	738	60	V. C.	L. C.	
EMERGENCY GENERATOR ... ..	8	1	10 mm <sup>2</sup>	35	38	120	Rubber	L. C. A.	
ROTARY TRANSFORMER: MOTOR ... ..									
GENERATOR ... ..									

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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.

Electrical Engineers.

Date

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass

100 ft

Minimum distance between electric generators or motors and steering compass

100 ft

The nearest cables to the compasses are as follows:—

A cable carrying 1 Ampères 6 feet from standard compass 5 feet from steering compass.

A cable carrying 0.1 Ampères 4 feet from standard compass 4 feet from steering compass.

A cable carrying 0.1 Ampères 6 feet from standard compass 4 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

The maximum deviation due to electric currents was found to be degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

Builder's Signature.

Date

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

Plans. Are approved plans forwarded herewith. If not, state date of approval

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

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

The original electrical equipment of this vessel appears to have been installed to Germanischer Lloyd requirements. A number of alterations have been made to the original equipment and the existing installation bears little relation to the plans provided. The information given in this report has been obtained from examination, observation and talk on board. An additional 150kw. Generator has been installed at this time but the Owners were unable to obtain delivery of the circuit breaker. A circuit breaker suitable for 500 amps has been fitted and the output of the 150kw machine limited to 100kw. until the correct breaker is fitted. The owner expects delivery to be effected in the near future.

The electrical equipment has been tested under full working conditions and appears in good efficient condition. In my opinion it is eligible to be accepted for classification subject to a suitable circuit breaker for the 150 kw generator being fitted at the first opportunity.

Total Capacity of Generators 458 Kilowatts.

The amount of Fee £ 24 : 0 : 0

Travelling Expenses (if any) £

When received.

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

LIVERPOOL

17 AUG 1948

Assigned

See Minutes or Machinery Report.