

No. NWE 441

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

7 AUG 1947

Received at London Office.....

Writing Report..... 30 - 7 - 19 47 When handed in at Local Office..... 19..... Port of..... Hamburg

Survey held at..... Hamburg Date, First Survey..... 31 - 1 - 46 Last Survey..... 18 3 6 - 19 47
(Number of Visits..... 15.....)

on the Single Screw Motor Vessel "EMPIRE MOWDDACH" ex "Pontos" Tons { Gross.....
Not.....

at Bremen-Vegesack By whom built Bremer Vulkan Yard No. 716 When built 1935
Elders & Fyffes Ltd. Port belonging to London

Installation fitted by Allgemeine Elektrizitäts-Gesellschaft Contract No. - When fitted -

Vessel fitted for carrying Petroleum in bulk..... no Is vessel equipped with D.F. yes E.S.D. yes Gy.C. - Sub.Sig. -

Plans been submitted and approved..... System of Distribution single wire with hull return Voltage of supply for Lighting 220

Power 220 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state periodicity - Prime Movers,

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

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

compound wound state distance between generators..... and from switchboard..... Where more than one generator is fitted are they

connected 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

machines under 100 kw. been supplied - and the results found as per rule - Are the lubricating arrangements and the construction

generators as per rule Yes Position of Generators Main motor room, bottom platform, 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

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

Yes Switchboards, where are main switchboards placed Main motor room, port side, approx. 6'-0" above bottom

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

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

is used for the panels Italian Marble, if of synthetic insulating material is it an Approved Type - if of

insulating material (state or marble) are all conducting parts insulated therefrom as per Rule No Is the frame effectually earthed Yes

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

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

switches Yes Description of Main Switchgear for each generator and arrangement of equaliser switches single pole circuit

with overload and reverse current trips with an interlocked single pole equaliser switch

each outgoing circuit a single pole fuse and switch on the insulated pole

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

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

connection Yes Earth Testing, state means provided not provided

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

Yes If circuit breakers are provided for the generators, at what overload current did they open when tested 600/350, are the reversed current

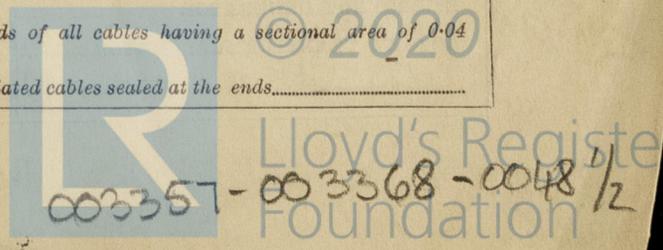
tripping devices connected on the pole opposite to the equaliser connection Yes, have they been tested under working conditions, and at what current

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

are they insulated and protected as per the appropriate Tables of the Rules No, if otherwise than as per Rule are they of an approved type No

maximum fall of pressure between bus bars and any point under maximum load 10 V light 12 V power are the ends of all cables having a sectional area of 0.04

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



Please see report 13 (attached) re cable loading. 2110

with insulating compound... or waterproof insulating tape... Are all the cable runs in accessible positions, not exposed to drip or acc
of water or oil, high temperatures or risk of mechanical damage... Yes... are cables laid under machines or floorplates... No... if so, are they
protected... Are cables in machinery spaces, galleys, lavatories, etc., lead covered... or run in conduit... Yes... State how the
supported and protected...
Are all lead sheaths, armouring and conduits effectively bonded and earthed... Yes... Refrigerated chambers, are the cables and fittings as per Rule...
Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands... Yes... where unarmoured cables p
beams, etc., are the holes effectively bushed... Yes... and with what material... wood... Alternative Li
the groups of lights in the engine and boiler rooms arranged as per Rule... Emergency Supply, state position
and method of control...
Navigation Lamps, are they separately wired... Yes... controlled
double pole switches... Yes... and fuses... Yes... Are the switches and fuses in a position accessible only to the officers on watch... Yes
automatic indicator fitted... Yes... Secondary Batteries, are they constructed and fitted as per Rule... Yes... are they adequately ventilated
what is the battery capacity in ampere hours... 30 amp. hr. telephones
Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... Yes
installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present... No... if so, how are they protected
and where are the controlling switches fitted... are all fittings suitably ventilated
are all fittings and accessories constructed and installed as per Rule... Yes GL Searchlight Lamps, No. of... one... whether fixed or portab
are their fittings as per Rule... Yes... Heating and Cooking, is the general construction as per Rule...
are the frames effectively earthed... Yes... are heaters in the accommodation of the convection type... Yes... Motors, are all motors con
installed as per Rule... Yes GL and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from dama
steam and oil... Yes... if situated near unprotected combustible material state minimum distance from same horizontally... and vertically...
motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compart
Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing... No... Have certificates of test for
100 BHP intended for essential services been supplied and the results found as per Rule... No... Control Gear and Resistances, are they co
fitted as per Rule... Yes GL... Lightning Conductors, where required are they fitted as per Rule... Ships carrying Oil having a
less than 150° F. Have all the special requirements of the Rules for such ships been complied with... are all fuses of the cartridge typ
are they of an approved type... Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special require
ships... Are the cables lead covered as per Rule... Spare Gear, if the vessel is for open sea service have spares been pr
Rule... are they suitably stored in dry situations... Insulation Tests, has the insulation resistance of all circuits and appar
and found satisfactory... Yes

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN COMBUSTION EN	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flas
MAIN	No 1	130 220	230 220	566 910	475 510	Diesel motor	Diesel oil	abo
	No 2	130	230	566	475	" "		
	No 3	130	230	566	475	" "		
	No 4	65	230	283	500	" "		
EMERGENCY	No 4	65	230	283	500	" "		
ROTARY TRANSFORMER		NOTE: A/C GENERATOR & OIL ENG. RENEWED 11/49 (BRS)						

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TED WITH.	HOW PR
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	130	2	185	578	700	49	rubber	lead cov
" " EQUALISER		1	185		350	49		armoured
	65	1	185 278	289	350	49	"	"
		1	70		192	49	"	"
EMERGENCY GENERATOR							"	"
ROTARY TRANSFORMER: MOTOR	4.65	1	16	54.6	60	33	"	"
" " GENERATOR		1	25		102	83	"	"

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TED WITH.	HOW PROTECTED.	
			In the Circuit.	Rule.				
SWITCHBOARDS AND SECTION BOARDS	II	1	35	200	200	116	rubber	lead covered and
	V	1	35	200	200	165	"	armoured
	VI	1	25	60	102	49	"	"
	VIII	1	150	200	305	99	"	"
	X & VIII	1	70	300	300	360	"	"
	XI	1	70 + 25	200	230	280	"	"
	XV	1	150	300	305	66	"	"
XVI	1	120	260	267	83	"	"	
XVII	1	120	260	267	116	"	"	

LIGHTING AND HEATING, ETC., CABLES.

DESCRIPTION.	No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TED WITH.	HOW PROTECTED.
			In the Circuit.	Rule.			
...	1	16	25	77	198	rubber	lead covered and
...	1	2.5	10	25		"	armoured
SECTION LIGHTS	1	70	200	192	280	"	"
...	1	25	100	102	280	"	"
...	1	35	80	125	165	"	"
...	1	25	60	102	165	"	"
...	1	25	80	102	116	"	"
...	1	10	35	58	116	"	"
...	1	25	80	102	360	"	"
...	1	2.5	20	25	33	"	"

MOTOR CABLES.

IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	sq. mm	amps.	Rule	feet.	INSULA-TED WITH.	HOW PROTECTED.	
Water pump (seawater)	2	25	1	25	100	102	60	rubber	lead covered and
" (fresh water)	2	16	1	16	60	77	43	"	armoured
" port service	1	7.5	1	10	35	58	60	"	"
	1	10	1	10	50	58	23	"	"
	1	12	1	16	50	77	17	"	"
	1	16	1	25	80	102	27	"	"
	1	3	1	2.5	15	25	30	"	"
	1	3						"	"
Lab. oil pump	1	10	1	10	50	58	46	"	"
Ice fuel oil pump	1	10	1	10	50	58	27	"	"
Separator	1	2.5	1	2.5	15	25	27	"	"
Compressor	2	75/100	1	185	350	350	116	"	"
Boiling water pump	1	8.5	1	10	35	58	83	"	"
	3	8.5		10	35	58	23	"	"
Fan.	1	19	1	25	60	102	17	"	"
	1	19	1	25	60	102	50	"	"
	2	26	1	35	80	125	26	"	"
frig.	1	7	1	10	35	58	33	"	"
	1	10	1	10	50	58	50	"	"
	1	4	1	4	25	33	50	"	"
	1	4.5	1	50	250	262	27	"	"
	8	25	1	16	100	104	26	"	"
	1	5	1	10	25	58	198	"	"

