

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 8 October 1935 When handed in at Local Office 8th October 1935 Port of CopenhagenNo. in Survey held at Copenhagen Date, First Survey 11th September Last Survey 15th October 1935
Reg. Book. (Number of Visits.....)31723 on the Steel S.S. 3rd. "PETER MÆRSK" Tons { Gross 5339
Net 3341Built at Odense By whom built Odense Staalskibsværft Yard No. 45 When built 1932Owners A/S Smedning of A/S of 1912 Port belonging to Copenhagen
EXTENSION OF Electric Light Installation fitted by Messrs. Bunnish & Wain, Esqs Contract No. - When fitted 1935Is the Vessel fitted for carrying Petroleum in bulk noSystem of Distribution 2 conductor insulated systemPressure of supply for Lighting 220 volts, Heating - volts, Power 220 volts.Direct or Alternating Current, Lighting direct Power directIf alternating current system, state frequency of periods per second -Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yesGenerators, do they comply with the requirements regarding rating yes, are they compound wound yesare they over compounded 5 per cent. yes, if not compound wound state distance between each generator -Where more than one generator is fitted are they arranged to run in parallel yes, is an adjustable regulating resistance fitted inseries with each shunt field yesAre all terminals accessible, clearly marked, and furnished with sockets yes, are they so spaced or shielded that they cannot be accidentally earthed,short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yesPosition of Generators placed in the motor room on the manoeuvring platformis the ventilation in way of the generators satisfactory yes, are they clear of all inflammable material yes

situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators

no woodwork and -, are the generators protected from mechanical injury and damage from water, steam or oil yesare their axes of rotation fore and aft yesEarthing, are the bedplates and frames of the generating plant efficiently earthed yes are the prime movers andtheir respective generators in metallic contact yesMain Switch Boards, where placed The existing main switch board lengthened to take thenew circuit breakers If the generators and main switchboard are not placed in the same compartment, is each generator provided witha fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard yesSwitchboards, are they placed in accessible positions, free from inflammable gases and acid fumes yesare they protected from mechanical injury and damage from water, steam or oil yes, if situated near unprotectedwoodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards no woodworkare they constructed wholly of durable, non-ignitable non-absorbent materials yes, is all insulation of high dielectric strength and ofpermanently high insulation resistance yes, if semi-insulating material is used, are all conducting parts insulated from the slabwith mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework yesand is the frame effectively earthed yes Are the fittings as per Rule regarding:— spacing or shielding of live partsyes, accessibility of all parts yes, absence of fuses on back of board yes, proportion of omnibusbars yes, individual fuses to voltmeter, pilot or earth lamp yes, connections of switches yesMain Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches For the generator:—A 3 pole switch with over-load & reversed current trips. For the outgoing circuits:—A 2 pole switch with fuses on each poleInstruments on main switchboard 1 ammeters 1 voltmeters - synchronising device for paralleling purposes.Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system A voltmeterwith ohm scale & 1 set of earth lamps (on the old part of the switch board)Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yesJoint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes

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Cables: Single, twin, concentric, or multicore single are the cables insulated and protected as per Tables IV, V, XI or XIII of the Rules. yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5' roll

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets yes

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound ✓

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage yes

Support and Protection of Cables, state how the cables are supported and protected Armoured cables used laid on steel plates - secured by steel clips

If cables are run in wood casings, are the casings and caps secured by screws ✓, are the cap screws of brass ✓, are the cables run in separate grooves ✓. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements ✓

Joints in Cables, state if any, and how made, insulated, and protected no joints in cable

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands yes

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed ✓ state the material of which the bushes are made ✓

Earthing Connections, state what earthing connections are fitted and their respective sectional areas ✓

✓, are their connections made as per Rule ✓

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule ✓

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven ✓

Navigation Lamps, are these separately wired ✓, controlled by separate switch and separate fuses ✓, are the fuses double pole ✓, are the switches and fuses grouped in a position accessible only to the officers on watch ✓

has each navigation lamp an automatic indicator as per Rule ✓

Secondary Batteries, are they constructed and fitted as per Rule ✓

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight yes, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected no

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected ✓, how are the cables led ✓

where are the controlling switches situated ✓

Searchlight Lamps, No. of ✓, whether fixed or portable ✓, are their fittings as per Rule ✓

Arc Lamps, other than searchlight lamps, No. of ✓, are their live parts insulated from the frame or case ✓, are their fittings as per Rule ✓

Motors, are their working parts readily accessible yes, are the coils self-contained and readily removable for replacement yes, are the brushes, brush holders, terminals and lubricating arrangements as per Rule yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material yes, are they protected from mechanical injury and damage from water, steam or oil yes, are their axes of rotation fore and aft yes, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type yes, if not of this type, state distance of the combustible material horizontally or vertically above the motors ✓ and ✓

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule ✓

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings ✓

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office ✓

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.	
MAIN	1	40	220	182	650	1 cylinder "Reeder" steam engine			
AUXILIARY									
EMERGENCY									
ROTARY TRANSFORMER									

GENERATOR, LIGHTING AND HEATING CONDUCTORS.									
DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet. 111	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. mm. 111	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	1	70	19	2.16	-	124	3.5	India rubber	Lead covered & wrapped around wire
EQUALISER CONNECTIONS	1	120	19	2.52	182	177	7		
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER	MOTOR GENERATOR								
ENGINE ROOM									
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
ACCOMMODATION									
WIRELESS									
SEARCHLIGHT									
MASTHEAD LIGHT									
SIDE LIGHTS									
COMPASS LIGHTS									
POOP LIGHTS									
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

MOTOR CONDUCTORS.										
DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet. 111	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective Area per Pole Sq. mm. 111	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP										
MAIN BILGE LINE PUMPS										
GENERAL SERVICE PUMP										
EMERGENCY BILGE PUMP										
SANITARY PUMP FOR CONDENSER									India rubber	Lead covered and wrapped around wire
CIRC. SEA WATER PUMPS	3HP	1	1	2.5	7	0.67	12	15.5		
CIRC. FRESH WATER PUMPS	20HP	1	1	3.5	19	1.53	78	78	20	-
CHILLER COMPRESSOR FOR COOLING	6HP	1	1	10	7	1.35	24	38	4	-
FRESH WATER PUMP										
ENGINE TURNING GEAR										
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT - 2 of 25HP	2	1	50	19	1.83	95	113	80	-	-
STEERING GEAR—										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR										
VENTILATING FANS										
FIRE PUMP 15HP	1	1	25	7	2.13	58	65	50	-	-
FAN for DONKEY B. 7HP	1	1	10	7	1.35	28	38	40	-	-
Oil fuel circ. pump	1	1	2.5	7	0.67	12	15.5		-	-

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All Conductors are of annealed copper conforming to British Standard Specification No. 7.

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

BURMEISTER WANDS BASKIN-OG SKIBBYGGERI

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

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

A cable carrying Ampères feet from standard compass 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

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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The selection of the electric

installations as described above has been fitted under our supervision and to our satisfaction and is in accordance with the Rules

The material used and the workmanship are of good description throughout.

On completion the new generator & the switch gear were tested under full load & found satisfactory.

Noted

31/10/35

Total Capacity of Generators 40 Kilowatts.

The amount of Fee £ 90.00 When applied for, 11.10.35
Travelling Expenses (if any) £ : : When received, 28.10.35 6/11

Surveyors Lloyd's Register of Shipping.

Committee's Minute

FRI. 1 NOV 1935

TUE. 24 DEC 1935

Assigned See other Rpt
Cpn 9736

FRI. 17 APR 1936

FRI. 8 MAY 1936

TUE. 15 SEP 1936

FRI. 5 FEB 1937
FRI. 19 FEB 1937

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