

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 5 DEC 1936

Date of writing Report 2nd Dec 1936 When handed in at Local Office 3rd Dec 1936 Port of Danzig

No. in Survey held at Danzig Date, First Survey 27th August Last Survey 7th November 1936
Reg. Book. on the TWIN SCREW M.V. "TARIFA" (Number of Visits...)

Built at Danzig By whom built F. Schichau G.m.b.H. Yard No. 1357 When built 1936
Owners W. Wilhelmsen Oslo Port belonging to Tönning

Electric Light Installation fitted by F. Schichau G.m.b.H. Contract No. When fitted 1936

Is the Vessel fitted for carrying Petroleum in bulk No.

Tons { Gross
Net

System of Distribution Two wire

Pressure of supply for Lighting 220 ✓ volts, Heating 220 ✓ volts, Power 220 ✓ volts.

Direct or Alternating Current, Lighting Direct ✓ Power Direct ✓

If 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 Yes ✓

Generators, do they comply with the requirements regarding rating Yes ✓, are they compound wound Yes ✓

are 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 in series with each shunt field

Are 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

Position of Generators Bottom platform of engine room 2 Port 1 Std. Yes ✓

is the ventilation in way of the generators satisfactory Yes ✓, are they clear of all inflammable material Yes ✓

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

and ✓, are the generators protected from mechanical injury and damage from water, steam or oil Yes ✓

are their axes of rotation fore and aft Yes ✓

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes ✓ are the prime movers and their respective generators in metallic contact

Main Switch Boards, where placed Fore end of engine room on middle platform. Yes ✓

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes ✓

are they protected from mechanical injury and damage from water, steam or oil Yes ✓, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards

are they constructed wholly of durable, non-ignitable non-absorbent materials Yes ✓, is all insulation of high dielectric strength and of permanently high insulation resistance

Yes ✓, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

and is the frame effectively earthed Yes ✓. Are the fittings as per Rule regarding:— spacing or shielding of live parts

Yes ✓, accessibility of all parts Yes ✓, absence of fuses on back of board as approved plan ✓, proportion of omnibus bars

Yes ✓, individual fuses to voltmeter, pilot or earth lamp Yes ✓, connections of switches Yes ✓

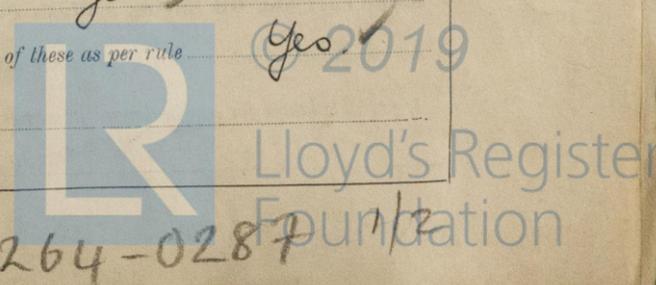
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches A double pole overload circuit breaker, with single pole equalize switch. each outgoing circuit has a double pole switch and fuse on each pole.

Instruments on main switchboard 3 ammeters 3 voltmeters synchronising device for paralleling purposes. Voltmeter

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system with Ohm scale.

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules. Yes ✓

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule. Yes ✓



Cables: Single, twin, concentric, or multicore Yes are the cables insulated and protected as per Tables IV or V of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 4 volts

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 Yes

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 Clips and where exposed to damage protected by sheet iron plating.

If cables are run in wood casings, are the casings and caps secured by screws Yes, are the cap screws of brass Yes, are the cables run in separate grooves Yes. 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 Yes

Joints in Cables, state if any, and how made, insulated, and protected None

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 Yes. state the material of which the bushes are made lead

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

are their connections made as per Rule Yes

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

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

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

has each navigation lamp an automatic indicator as per Rule Yes

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

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 Yes

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

how are the cables led

where are the controlling switches situated

Searchlight Lamps, No. of 1, whether fixed or portable 1, are their fittings as per Rule Yes

Arc Lamps, other than searchlight lamps, No. of 1, are their live parts insulated from the frame or case Yes, are their fittings as per Rule Yes

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 Yes and Yes

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 Yes

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 Yes

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

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								
AUXILIARY	3	155,155.4	115	all 230	675,675+500	all 360	Diesel engine	Diesel oil about 150° F
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. In.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	2	546.	127.	2.35	400	512.	40	Rubber	Lead covered Braided & Armoured.
EQUALISER CONNECTIONS	1	500.	127.	2.35	500	512.	40	"	"
AUXILIARY GENERATOR	1	546.	127.	2.35	674	512.	40.	"	"
EMERGENCY GENERATOR	2	546.	127.	2.35	674	512.	40.	"	"
ROTARY TRANSFORMER MOTOR GENERATOR	1	6.75	7.	1.10.	24.	31.	70	"	"
ENGINE ROOM	1	4.52	7.	.90	18	24.	40	"	"
BOILER ROOM	1	4.9	19	1.85	90	97.	22	"	"
AUXILIARY SWITCHBOARDS	1	4.9	19	1.85	90	97.	22	"	"
ACCOMMODATION	1	6.75	7	1.10	24	31	54	"	"
Passenger	1	4.52	7	.90	18	24	60	"	"
Bridge House	1	4.52	7	.90	18	24	65	"	"
Officers' Engineers	1	4.52	7	.90	18	24	90	"	"
Chef's aft.	1	4.52	7	.90	18	24	90	"	"
WIRELESS	1	14.25	7	1.60.	20.	46	30.	"	"
SEARCHLIGHT	1	2.94	7.	.75	0.1	18.2	50	"	"
MASTHEAD LIGHT	1	2.94	7.	.75	0.1	18.2	10	"	"
SIDE LIGHTS	1	1.93	3	.90	0.1	12	5	"	"
COMPASS LIGHTS	1	2.94	7	.75	0.1	18.2	140	"	"
POOP LIGHTS	1	2.94	7	.75	1.2	19.2		"	"
CARGO LIGHTS	1	1.93	3	.90	5	12.9		"	"
ARC LAMPS	1	1.93	3	.90	5	12.9		"	"
HEATERS	1	1.93	3	.90	5	12.9		"	"

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Effective Area per Pole Sq. In.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP	1	1	159	37	2.35	97	214	35	Rubber	Lead covered Braided & Armoured
MAIN BILGE LINE PUMPS	1	1	25.6	19	1.3	50	64.	40.	"	"
GENERAL SERVICE PUMP	1	1	18.3	19	1.10	50	53	38.	"	"
DECK WATER PUMPS	2	1	2.94	7	.75	11.3	18.2	19	"	"
EMERGENCY BILGE PUMPS	1	1	25.6	19	1.3	64.5	68.	35	"	"
SANITARY PUMP	3	1	321	61	2.60	300	332	25	"	"
CIRC. SEA WATER PUMPS	3	1	95.4	37	1.85	156	191	15	"	"
CIRC. FRESH WATER PUMPS	2	1	546	127.	2.35	425	512	40	"	"
AIR COMPRESSORS	3	1	2.94	7	.75	8.5	18.2	10	"	"
FRESH WATER PUMPS	2	1	18.3	19	1.10	50.	53	30	"	"
ENGINE TURNING GEARS	1	1	2.44	7	.75	8.3	18.2	30	"	"
ENGINE REVERSING GEAR	1	1	2.44	7	.75	8.3	18.2	30	"	"
LUBRICATING OIL PUMPS	1	1	75.3	37	1.60	110	120	48	"	"
OIL FUEL TRANSFER PUMPS	1	1	159	37	2.35	265	295	100	"	"
WINDLASS	1	1	159	37	2.35	265	295	100	"	"
WINCHES, FORWARD	8	1	4.9	19	1.85	102	113	90	"	"
WINCHES, AFT	8	1	4.9	19	1.85	102	113	90	"	"
STEERING GEAR—										
(a) MOTOR GENERATOR	1	1	4.9	19	1.85	90	113	100	"	"
(b) MAIN MOTOR	1	1	4.9	19	1.85	90	113	100	"	"
WORKSHOP MOTOR	1	1	18.3	19	1.10	21.7	56	35	"	"
VENTILATING FANS	3	1	1.93	3	.90	.95	12	15	"	"
OIL SEPARATORS	2	1	2.94	7	.75	13	18.2	15	"	"
OIL FUEL RESERVE PUMP	1	1	18.3	19	1.10	48	53	14	"	"
REFRIGERATOR	1	1	38.7	19	1.60	82	83	30.	"	"
DEEP TANK PUMP	1	1	4.9	19	1.85	94	97	14	"	"
"	1	1	95.4	37	1.85	138	152	16	"	"
RESERVE PUMP	1	1	4.9	19	1.85	24.5	97	28	"	"
LUB OIL SEPARATORS	2	1	2.94	7	.75	8.8.	18.2	35	"	"

W264-0284 Register Foundation

2 DEC 1936

All Conductors are of annealed copper conforming to British Standard Specification No. 7.
The Insulated Conductors are guaranteed to with and the immersion and resistance tests specified in the Rules.
The foregoing is a correct description.

F. SCHICHAU G. M. B. H. ELBING
3. DEZ. 1936
ABT. SCHIFFSWERFT
ZU DANZIG

J. Schubert Electrical Engineers.

Date 3rd Dec. 1936.

COMPASSES

Distance between electric generators or motors and standard compass 70 m.

Distance between electric generators or motors and steering compass 70 m.

The nearest cables to the compasses are as follows:—

A cable carrying 0.3 Ampères 4 feet from standard compass 5 feet from steering compass.

A cable carrying 0.1 Ampères 4 feet from standard compass 3 feet from steering compass.

A cable carrying 0.3 Ampères 5 feet from standard compass 6 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 will degrees on all course in the case of the standard compass, and will degrees on all course in the case of the steering compass.

F. Schichau G. m. b. H. Elbing
Abt. Schiffswerft zu Danzig

H. Meyer

W. Müller

Builder's Signature.

Date 3. Dec. 36.

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.)

This installation is fitted in accordance with the Society's Rules for Electrical Equipment. Material and workmanship are of good quality.

The installation has been tried under full working conditions with satisfactory results.

Noted

From

5.12.36

[Signature]

Total Capacity of Generators 425 Kilowatts.

The amount of Fee ... * £ 88 : 14 : When applied for, 24.11.1936.

Travelling Expenses (if any) £ - : 6 : When received, 12.1.1937

* (1/5) £ 17-15-0 to be credited to Bremen Office

Richard Shaw
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 22 DEC 1936

FRI 5 MAR 1937

FRI 7 MAY 1937

FRI 6 AUG 1937

Assigned

See Inv. J.E 12

1m. 9. 90. — Transfer.
(The Surveyors are requested not to write on or bet in the space for Committee's Minute.)



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