

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 13 SEP 1928

Date of writing Report

19

When handed in at Local Office

6.9.28 Port of Trieste

No. in
Reg. Book.

Survey held at

Monfalcone

Date, First Survey

3/8

Last Survey

20/8

19 28

(Number of Visits)

four

81823 on the

M. S. Puccini

Tons

Gross 2422

Net 1419

Built at

Monfalcone

By whom built

Cant. Nav. Triest.

Yard No. 191

When built 1928

Owners

Adria S. R. di Nav. Marit.

Port belonging to

Trieste

Electric Light Installation fitted by

Cantiere Navale Triestino

Contract No.

When fitted 1928

System of Distribution *two wire*Pressure of supply for Lighting *110*

volts, Heating —

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 *yes*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 *yes*Are the lubricating arrangements of the generators as per Rule *yes*Position of Generators *Two on port one on starb E. R. platform*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 *yes*Main Switch Boards, where placed *in E. R. port side*

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 — and —

are they constructed wholly of durable, non-ignitable non-absorbent materials *yes (Plate)*

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 micrite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework *yes*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 *yes*

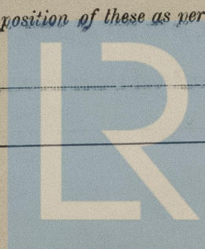
proportion of omnibus

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 *Double pole circuit**breaker with overload and reverse current trip with interlocked equalizer for generator**for Fan Windlass, Winches & E. R. Motors an overload circ. breaker to one pole and fuse**to other pole. Double pole switches and fuses to all other circuits for power and light.*Instruments on main switchboard *9* ammeters *5* 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 *contacts for**Voltmeters*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*

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Foundation

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

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

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 none

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 or lead covered supported by 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 —

Refrigerated Chambers, is 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 tube 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 hard wood or lead

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 yes

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven none

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 none

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 none

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected no

—, how are the cables led

where are the controlling switches situated —

Searchlight Lamps, No. of none, whether fixed or portable —, are their fittings as per Rule —

Are 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

—, 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	120	220	546	270	Diesel Fiat Eng.	Diesel oil	
AUXILIARY ...	1	80	220	362	270	Diesel Fiat Eng.	"	
EMERGENCY ...	1	32	220	146	425	Hot bulb Fiat Eng.	"	
ROTARY TRANSFORMER	1	21HP/13 Kw	220/110	82/118	1400	Electric		

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amps.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
1	MAIN GENERATOR...	2	243	61	2.25	546	60	rubber	Armoured
	EQUALISER CONNECTIONS ...	1	243	61	2.25				
2	AUXILIARY GENERATOR ...	1	394	91	2.35	362	80	"	"
3	EQUALISER CONNECTIONS ...	1	196	37	2.85	146	50	"	"
11-12	ROTARY TRANSFORMER...	4	57.74	14-37	1.85-1.6	82/118	50	"	"
8	AUXILIARY SWITCHBOARDS	1	181	37	2.5	214	40	"	"
13	ENGINE ROOM ...	1	4.5	7	0.9	16	60	"	"
19	BOILER ROOM 220V...	1	1.3	1	1.3	2	60	"	"
14	ACCOMMODATION Aft...	1	4.5	7	0.9	6	320	"	Arm. and lead cov.
15	" Centre	1	11.5	7	1.4	38	160	"	" " " "
16	" Saloon	1	7	7	1.1	23	200	"	" " " "
17	Bridge	1	1.3	1	1.3	5	210	"	" " " "
9	Auxiliary S.B. II	1	38	19	1.6	73	50	"	Armoured
18	WIRELESS ...	1	4.5	7	0.9	5	210	rubber	Armoured
	SEARCHLIGHT ...								
17	MASTHEAD LIGHT...	1	1.3	1	1.3	0.5	330	rubber	"
17	SIDE LIGHTS ...	1	1.3	1	1.3	0.5	220	"	"
17	COMPASS LIGHTS ...	1	1.3	3	0.75	0.17		"	Lead covered
17	POOP LIGHTS ...	1	1.3	1	1.3	0.5	350	"	Armoured
15	CARGO LIGHTS to S.B.	1	1.2	1	1.3	5		"	"
	ARC LAMPS ...								
	HEATERS ...								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Am. amp.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
8-5	BALLAST PUMP ...	1	38	19	1.6	78	70	rubber	Armoured
8-6	MAIN BILGE LINE PUMPS ...	1	25	19	1.3	59	90	"	"
	GENERAL SERVICE PUMP ...								
	EMERGENCY BILGE PUMP ...								
9-9	SANITARY PUMP ...	1	7	7	1.1	24	110	"	"
8-7	CIRC. SEA WATER PUMPS ...	1	15	7	1.6	40	40	"	"
	CIRC. FRESH WATER PUMPS ...	1							
	AIR COMPRESSOR ...								
8-10	FRESH WATER PUMP ...	1	4.5	7	0.9	12	40	"	"
9-27	ENGINE TURNING GEAR ...	1	4.5	7	0.9	20	110	"	"
	ENGINE REVERSING GEAR ...								
9-33	LUBRICATING OIL PUMPS ...	1	7	7	1.1	24	90	"	"
8-8	OIL FUEL TRANSFER PUMP ...	1	7	7	1.1	24	80	"	"
5	WINDLASS 1.4h. 2.4h. ...	1	100	37	1.85	169	280	"	"
6	WINCHES, FORWARD 1/2h. 2. ...	4	147	37	2.25	236	200	"	"
7	WINCHES, AFT 1/2h. 2. ...	4	147	37	2.25	236	200	"	"
	STEERING GEAR—								
	(a) MOTOR GENERATOR ...								
4	(b) MAIN MOTOR ...	1	15	7	1.6	47	250	"	"
10	WORKSHOP MOTOR S.B. ...	4	4.5	7	0.9	22	100	"	"
	VENTILATING FANS ...								
21	Galley S.B. ...	5	51	19	1.85	96	200	"	"
9-11	Oil Filter ...	1	1.3	1	1.3	5	90	"	"

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.

Cantiere Navale Triestino

Electrical Engineers.

Date 3rd September 28

COMPASSES.

Distance between electric generators or motors and standard compass 54'

Distance between electric generators or motors and steering compass 50'

The nearest cables to the compasses are as follows:—

A cable carrying 5 Amperes 10 feet from standard compass 8 feet from steering compass.

A cable carrying 0.17 Amperes in the feet from standard compass in the feet from steering compass.

A cable carrying Amperes 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 no

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.

Cantiere Navale Triestino

Builder's Signature.

Date 3rd September 28

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

General Remarks (State quality of workmanship, opinions as to class, &c.)

This installation has been made in accordance with the Rules. The material and workmanship are good. It has been tested under working condition and found in order

It is submitted that
this vessel is eligible for
THE RECORD

Elec Light

14/9/28.

DUAL CLASS

L.R. & R.I.

Total Capacity of Generators 232 Kilowatts.

The amount of Fee ...

Liv 3469

When applied for,

19

Travelling Expenses (if any) £

When received,

10.12.28

Committee's Minute

TUE. 18 SEP 1928

Assigned

Elec Light

Im. 128.—Transfer.
(The Surveys are requested not to be on the space for Committee's Minute.)



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