

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 19 April 1926

Date of writing Report April 3 1926 When handed in at Local Office April 9 1926 Port of Trieste

No. in Survey held at Trieste Date, First Survey 25/11/1925 Last Survey 31<sup>st</sup> March 1926  
Reg. Book. (Number of Visits 2) 39004 on the MOTOR VESSEL "FELLA"

Built at Trieste By whom built Stabilimento Tecnico Triestino Yard No. 745 Tons { Gross 7062 Net 4460

Owners Navigazione Libera Adriatica Port belonging to Venice

Electric Light Installation fitted by Stabilimento Tecnico Triestino Contract No. When fitted 1926.

System of Distribution Two wire ✓

Pressure of supply for Lighting 110 Volts ✓ volts, Heating ✓ 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.

Position of Generators Two on port side engine room - one on starboard side. Are the lubricating arrangements of the generators as per Rule 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 Yes.

Main Switch Boards, where placed Port side engine room - transversely in ship.

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. Marble, 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 micaite 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. Generators - double pole circuit breakers with maximum and minimum current trips and with equalizer switches

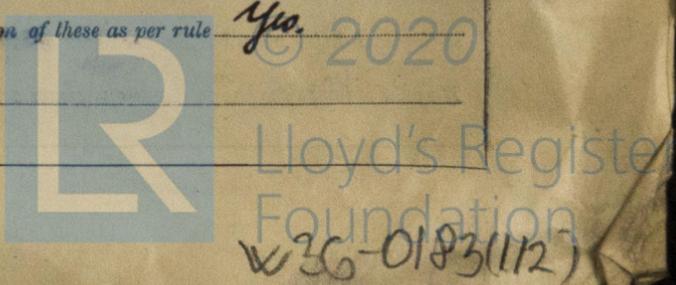
electrically arranged as per Rules. Outgoing circuit - line pole knife switches with quick release.

Instruments on main switchboard ammeters ✓ 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 Lamp to earth

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 single & double 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. 37-4.5 Vrms

**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. Supported by iron clips and protected by sheet iron where necessary.

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 Yes except lamps see lighting nearby report.

**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 wood.

**Earthing Connections,** state what earthing connections are fitted and their respective sectional areas. Switchboard frame is made of iron and is in metallic contact with the ship's structure.

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 ✓

**Fittings,** are all fittings on weather decks, in stokeholds and engine rooms and where or 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 in tween decks lamps protected by iron cages. 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 ✓ 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 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 ✓ 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.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	3	66	220	300	420	Two cylinders Diesel engine	Diesel oil	Above 150° F.
AUXILIARY	✓							
EMERGENCY	✓							
ROTARY TRANSFORMER	1	13	220-110	118	1400			

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) METRES.	Insulated with	HOW PROTECTED.	
				No.	Diameter.				do	do
	MAIN GENERATOR S	1	321	61	2.6	300	30	Rubber.	Lead	Steel wire
	EQUALISER CONNECTIONS		127	27	2.1		42	do	do	do
	AUXILIARY GENERATOR	✓								
	EMERGENCY GENERATOR	✓								
	ROTARY TRANSFORMER	✓	35	19	1.6	53	20	do	do	do
	AUXILIARY SWITCHBOARDS	✓	65	19	2.1	117	20	do	do	do
	ENGINE ROOM		45	7	0.9	16	5	do	do	do
	BOILER ROOM		10	7	1.3	26	112	do	do	do
	ACCOMMODATION		10	7	1.3	23	92	do	do	do
	Do		10	7	1.3	23	92	do	do	do
	PLUG FOR OIL PUMP		25	19	1.3	50	56	do	do	do
	WIRELESS		67	7	1.1	15	104			
	SEARCHLIGHT	✓	1.9	1	1.6	19	120			
	MASTHEAD LIGHT	✓	1.9	1	1.6	19	200			
	SIDE LIGHTS		25	1	1.8	1.1	18			
	COMPASS LIGHTS		1.9	1	1.6	0.16	10			
	POOP LIGHTS		2.5	1	1.8	1.1	72			
	CARGO LIGHTS	✓	10	7	1.3	22	184			
	CARGO LIGHTS	✓	10	7	1.3	22	190			
	ARC LAMPS									
	HEATERS	✓								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) METRES.	Insulated with	HOW PROTECTED.	
				No.	Diameter.				do	do
	BALLAST PUMP	1	49	19	1.85	98	27	Rubber	Lead	Steel wire
	MAIN BILGE LINE PUMPS	1	43	7	0.9	19 1/2	22	do	do	do
	GENERAL SERVICE PUMP	1	14	7	1.6	39	34	do	do	do
	EMERGENCY BILGE PUMP	✓								
	SANITARY PUMP	✓								
	CIRC. SEA WATER PUMPS	2	38	19	1.6	75	28	do	do	do
	CIRC. FRESH WATER PUMPS	✓								
	AIR COMPRESSOR	✓								
	FRESH WATER PUMP	1	25	1	1.8	79	82	do	do	do
	ENGINE TURNING GEAR	1	10	7	1.3	27	40	do	do	do
	ENGINE REVERSING GEAR	✓								
	LUBRICATING OIL PUMPS	2	14	7	1.5	39	34	do	do	do
	OIL FUEL TRANSFER PUMP	1	25	19	1.3	59	80	do	do	do
	WINDLASS	1	127	37	2.1	185	186	do	do	do
	WINCHES, FORWARD	1	159	37	2.35	209	160	do	do	do
	WINCHES, CENTRE	1	65	19	2.35	105	88	do	do	do
	WINCHES, AFT	1	159	37	2.35	209	114	do	do	do
	STEERING GEAR—									
	(a) MOTOR GENERATOR	1	55	19	2.1	113	192	do	do	do
	(b) MAIN MOTOR		65	19	2.1	98	10	do	do	do
	WORKSHOP MOTOR									
	VENTILATING FANS									

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.

*Pro Montecchia Neapolis* Electrical Engineers.

Date 5.4.26

COMPASSES.

WIRELESS TRANSFORMER

Distance between electric ~~generators~~ or motors and standard compass

13 metres

Distance between electric generators or motors and steering compass

10 metres.

The nearest cables to the compasses are as follows:—

A cable carrying 8.5 Amperes 5 m feet from standard compass 2 m feet from steering compass.

A cable carrying ✓ Amperes ✓ feet from standard compass ✓ 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

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.

*W. J. ...*

Builder's Signature.

Date 5.4.26.

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.)

*The electric installation of*

*this vessel has been fitted on board in accordance with the requirements of the Rules. The generators and motor were tested in the shops before being fitted on board and on completion, the whole installation was tested under full working conditions, with satisfactory results.*

*wireless fitted.*

It is submitted that this vessel is eligible for THE RECORD. Elec. Light.

*W.D.*  
*21/4/26.*

Total Capacity of Generators 198 Kilowatts.

The amount of Fee ... £ 3404.- { When applied for, 12/4/1926

Travelling Expenses (if any) £ ✓ : 28.5.26 { When received, 28.5.26

*V. Lockray.*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI, 23 APR 1926

Assigned

*Elec. Light*

Im. 1.26—Transfer. (The Surveyors are requested not to make on or below the space for Committee's Minute.)



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