

Rpt. 13.

No. 544.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office 2 DEC 1926

Date of writing Report 19 When handed in at Local Office 29/11/26 19 Port of ROVEN.

No. in Survey held at Le Trait. Date, First Survey July 2nd Last Survey Nov 22nd 1926
Reg. Book. (Number of Visits 10)on the SINGLE SCREW STEAMER "SOROKA" Tons { Gross 1718
Net 1002Built at Le Trait. By whom built Messrs Worms et Cie. Yard No. 40 When built 1926.
are et ch de la Seine Maritime

Owners Det Norsk Russiske Dampskibsselskab Port belonging to BERGEN.

Electric Light Installation fitted by Ateliers et Chantiers de la Seine Maritime Contract No. 40 When fitted 1926.

System of Distribution Two wire system with direct current ✓

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

Direct or Alternating Current, Lighting Direct ✓ Power ✓

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 One Generator Only ✓, 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 yes ✓

Position of Generators Engine Room bottom platform Starboard Side.

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 Engine Room after Bulkhead Starboard 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 14" and clear of all woodwork.

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 ✓

with mica or micaite or other non-hygrosopic 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.

For the generator a double pole linked switch and a fuse on each pole

For each outgoing circuit: a fuse switch on each pole.

Instruments on main switchboard One ammeters 2 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 Earth testing

by volt-ohmmeter

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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Cables: Single, twin, concentric, or multicore *twin* 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 *5 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 *Cables secured by metal clips having rounded edges and spaced in accordance with rules*.

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 *Joint boxes*.

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 *yes*, 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 *yes*.

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 or as per Rule *yes*.

Secondary Batteries, are they constructed and fitted as per Rule *yes*.

Fittings, are all fittings on weather decks, in storerooms and engine rooms and where 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 *no*, how are the cables led *yes*, where are the controlling switches situated *yes*.

Searchlight Lamps, No. 01 *yes*, whether fixed or portable *yes*, are their fittings as per Rule *yes*.

Arc Lamps, other than searchlight lamps, No. of *yes*, 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		Insulated with	HOW PROTECTED.
		Kilowatts.	Volts.	Amperes.		Fuel Used.	Flash Point of Fuel.		
MAIN ...	1.	7.15	110	65	600	Single cylinder double acting steam engine			
AUXILIARY ...									
EMERGENCY ...									
ROTARY TRANSFORMER									

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), Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	.05200	19	.060	65	40	rubber	Lead & Armour
	EQUALISER CONNECTIONS...								
	AUXILIARY GENERATOR...								
	EMERGENCY GENERATOR...								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS...								
	ENGINE ROOM ...	2	.00426	7	.028	8.0	160	"	Lead & Armour
	BOILER ROOM ...	2	.00426	1	.056	3.6	140	"	Lead & Armour
	ACCOMMODATION No. 1 ...	2	.01254	7	.048	8.4	440	"	Lead covered
	" No. 2 ...	2	.01254	7	.048	11.5	320	"	Lead covered
	" No. 3 ...	2	.00426	7	.028	2.0	460	"	Lead covered
	Deck and galley ...	2	.00426	7	.028	4.0	200	"	Lead & Armour
	Navigation Lights ...	2	.00426	7	.028	3.5	580	"	Lead & Armour
	Shoof Tunnel ...	2	.00426	1	.056	1.8	220	"	Lead & Armour
	Cargo Clusters and other ...	2	.00426	7	.028	3.7	420	"	Lead & Armour
	WIRELESS ...	2	.01254	7	.048	25.0	240	"	Lead & Armour
	SEARCHLIGHT ...	2x2	.00246	1	.056	.5	640	"	Lead & Armour
	MASTHEAD LIGHT ...	2x2	.00246	1	.056	.6	320	"	Lead & Armour
	SIDE LIGHTS ...	2x2	.00246	1	.056	.1	600	"	Lead & Armour
	COMPASS LIGHTS ...	2x2	.00246	1	.056	.6	660	"	Lead & Armour
	POOP LIGHTS ...	2x2	.00246	1	.056	.6	500	"	Lead & Armour
	CARGO LIGHTS ...	8x2	.00246	1	.056	1.0	500	"	Lead & Armour
	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), Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP ...								
	MAIN BILGE LINE PUMPS ...								
	GENERAL SERVICE PUMP ...								
	EMERGENCY BILGE PUMP ...								
	SANITARY PUMP ...								
	CIRC. SEA WATER PUMPS ...								
	CIRC. FRESH WATER PUMPS ...								
	AIR COMPRESSOR ...								
	FRESH WATER PUMP ...								
	ENGINE TURNING GEAR ...								
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...								
	OIL FUEL TRANSFER PUMP ...								
	WINDLASS ...								
	WINCHES, FORWARD ...								
	WINCHES, AFT ...								
	STEERING GEAR—								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR ...								
	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.

Electrical Engineers.

Date 29/11/26.

COMPASSES.

Distance between electric generators or motors and standard compass

80 feet.

Distance between electric generators or motors and steering compass

80 feet from compass amidship 110 feet from stern compass.

The nearest cables to the compasses are as follows:—

A cable carrying 2.5 Amperes 6 feet from standard compass 9 feet from steering compass.

A cable carrying .5 Amperes 7 feet from standard compass 6 feet from steering compass.

A cable carrying .1 Amperes fixed in feet from standard compass 4 fixed in 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 degrees on Nil. course in the case of the standard

compass, and -3 degrees on N.N.E. course in the case of the steering compass.

P. WORMS & CO.

Le Secrétaire Général

Builder's Signature.

Date

Is this installation a duplicate of a previous case. Yes If so, state name of vessel "LEO" "LYNX" "NOVA"

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

The Electric Light Installation of this vessel has been fitted in accordance with the Society's Rules and to approved plans. The material and workmanship is satisfactory and the installation is eligible in my opinion to be classed and the vessel to have the notation in the register book of "Electric Light" also "Wireless".

L. Pickett

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

L. Pickett
3/12/26

Total Capacity of Generators 7.15 Kilowatts.

The amount of Fee ... £ 959 : When applied for, 19

Travelling Expenses (if any) £ : When received, 15/11/27
Charged on Machinery Report.

L. Pickett.
Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 7 DEC 1926

FRI. 25 FEB 1927
TUES. 6 DEC 1927

Assigned

Elec Light



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