

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

15 SEP 1948

Received at London Office.....

Date of writing Report..... 11.9.48 When handed in at Local Office..... 10..... Port of..... Stockholm

No. in Survey held at..... Stockholm Date, First Survey 15.12.47 Last Survey 1.6.1948

Reg. Book. 75315 ^{Sup. 95350.} on the steamer "SJÖBRIS" ex "Carolia" Tons { Gross..... 1219 Net..... 755

Built at..... Hoboken By whom built Chant Nav. Anversois Yard No. - When built 1906-9

Owners..... Rederi A/B Bris Port belonging to..... Stockholm

Electrical Installation fitted by Marinverkstäderna, Stockholm Contract No. - When fitted 1948

Is vessel fitted for carrying Petroleum in bulk..... No Is vessel equipped with D.F..... Yes E.S.D..... Yes Gy.C..... No Sub.Sig..... No

Have plans been submitted and approved..... Yes System of Distribution two conductor insulated Voltage of supply for Lighting 110

Heating..... Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. If Alternating Current state periodicity..... Prime Movers,

has the governing been tested and found as per Rule when full load is suddenly thrown on and off..... Yes Are turbine emergency governors fitted with a

trip switch as per Rule..... Generators, are they compound wound..... Yes, are they level compounded under working conditions.....

if not compound wound state distance between generators..... and from switchboard..... Where more than one generator is fitted are they

arranged to run in parallel..... No, are shunt field regulators provided..... Is the compound winding connected to the negative or positive pole

Negative..... Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing..... Have certificates of

Tests as per Rule carried out under my supervision with satisfactory results. test for machines under 100 kw. been supplied..... and the results found as per rule..... Yes Are the lubricating arrangements and the construction

of the generators as per rule..... Yes Position of Generators 10 Kw. generator engine room s.s. 1.4 Kw. generator

engine room s.s. forward, is the ventilation in way of generators satisfactory..... Yes are they clear of inflammable material..... Yes, if situated

near unprotected combustible material state distance from same horizontally..... and vertically..... are the generators protected from mechanical

injury and damage from water, steam and oil..... Yes, are the bedplates and frames earthed..... Yes and the prime movers and generators in metallic

contact..... Yes Switchboards, where are main switchboards placed..... In engine room s.s.

are they in accessible positions, free from inflammable gases and acid fumes..... Yes, are they protected from mechanical injury and damage from water, steam

and oil..... Yes, if situated near unprotected combustible material state distance from same horizontally..... and vertically..... what insulation

material is used for the panels Bakelite, steatite (steel front), if of synthetic insulating material is it an Approved Type....., if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule..... Is the frame effectually earthed..... Yes

Is the construction as per Rule..... Yes, including accessibility of parts..... Yes, absence of fuses on the back of the board..... Yes, individual fuses

to pilot and earth lamps, voltmeters, etc.,..... Yes locking of screws and nuts..... Yes, labelling of apparatus and fuses..... Yes, fuses on the "dead"

side of switches..... Yes Description of Main Switchgear for each generator and arrangement of equaliser switches..... Two pole circuit

breakers,

and for each outgoing circuit..... Double pole knife switch and double pole fuses,

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule..... Yes Instruments on main switchboard..... 2

ammeters..... 2 voltmeters..... synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection..... Earth Testing, state means provided..... Earth lamps

Switches, Circuit Breakers and Fuses, are they as per Rule..... Yes, are the fuses an approved type..... Yes, are all fuses labelled as

per Rule..... Yes If circuit breakers are provided for the generators, at what overload current did they open when tested....., are the reversed current

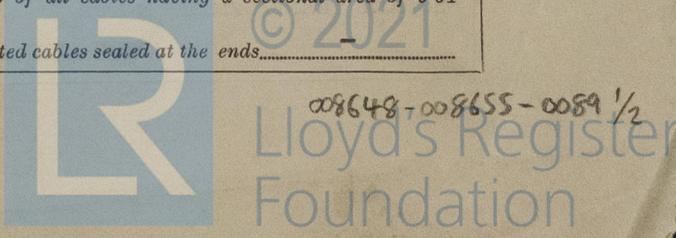
protection devices connected on the pole opposite to the equaliser connection....., have they been tested under working conditions, and at what current

did they operate..... Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule..... Yes

Cables, are they insulated and protected as per the appropriate Tables of the Rules..... See note, if otherwise than as per Rule are they of an approved type..... See note,

state maximum fall of pressure between bus bars and any point under maximum load..... Not above 4%, are the ends of all cables having a sectional area of 0.04

square inch and above provided with soldering sockets..... Yes Are paper insulated and varnished cambric insulated cables sealed at the ends.....



with insulating compound... or waterproof insulating tape... Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, high temperatures or risk of mechanical damage... Yes, are cables laid under machines or floorplates... No, if so, are they adequately protected... Are cables in machinery spaces, galleys, laundries, etc., lead covered... Yes or run in conduit... State how the cables are supported and protected. In machinery spaces, on deck and in holds, L.C. armoured cables clipped to bulkheads or steel plates, L.C. clipped to bulkheads in accommodations.

Are all lead sheaths, armouring and conduits effectually bonded and earthed... Yes. Refrigerated chambers, are the cables and fittings as per Rule... Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands... Yes, where unarmoured cables pass through beams, etc., are the holes effectively bushed... and with what material... Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... Yes. Emergency Supply, state position... and method of control...

Navigation Lamps, are they separately wired... Yes controlled by separate double pole switches... Yes and fuses... Yes. Are the switches and fuses in a position accessible only to the officers on watch... Yes, is an automatic indicator fitted... Yes. Secondary Batteries, are they constructed and fitted as per Rule... Yes, are they adequately ventilated... Yes what is the battery capacity in ampere hours... 30

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof... Yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present... No, if so, how are they protected...

and where are the controlling switches fitted... are all fittings suitably ventilated... Yes

are all fittings and accessories constructed and installed as per Rule... Yes. Searchlight Lamps, No. of... whether fixed or portable... are their fittings as per Rule... Heating and Cooking, is the general construction as per Rule...

are the frames effectually earthed... are heaters in the accommodation of the convection type... Motors, are all motors constructed and installed as per Rule... Yes and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil... Yes, if situated near unprotected combustible material state minimum distance from same horizontally... and vertically... Are motors coupled to oil fuel transfer and unit pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment...

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing... Have certificates of test for motors under 100 BHP intended for essential services been supplied and the results found as per Rule... None. Control Gear and Resistances, are they constructed and fitted as per Rule... Yes. Lightning Conductors, where required are they fitted as per Rule... Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with... are all fuses of the cartridge type... are they of an approved type... Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships... Are the cables lead covered as per Rule... Spare Gear, if the vessel is for open sea service have spares been provided as per Rule... Yes, are they suitably stored in dry situations... Yes. Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory... Yes.

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	1	10	110	90	550	Steam engine		
	1	1.4	110	12	850	Penta motor	Diesel oil Above 150° F	
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Pole.	Sectional Area of Cable in sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	10	1	50	90	99	5	Rubber	L.C. armoured
" " EQUALISER								
Harbour generator	1.4	1	2.5	12	13	5	Rubber	L.C. armoured
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATED WITH.	HOW PROTECTED.
	No. in Parallel For Pole.	Sectional Area of Cable in sq. mm.	In the Circuit.	Rule.			
AUX. SWITCHBOARDS AND SECTION BOARDS ...							
Engine room	1	2.5	9	13	5	Rubber	L.C. armoured
Engine room casing	1	4	20	21	16	"	" "
Accommodation amidships	1	4	20	21	50	"	" "
Navigation lights D.B.	1	2.5	1	13	50	"	" "
Accommodation forward	1	4	10	21	140	"	" "

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	1	4	< 21	21	50	Rubber	L.C. armoured
NAVIGATION LIGHTS	1	1.5	1	7		"	" "
LIGHTING AND HEATING	1	1.5	< 5	7		"	L.C.
Echo Sounding Device	1	1.5	< 5	7	50	"	L.C. armoured
Direction finder	1	1.5	< 5	7	50	"	" "

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Fresh water sanitary pump	1	*75	1	4	10	21	25	Rubber L.C. armoured

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.
 All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.
 The foregoing is a correct description.

Paul Hedvall
 Arbetschefen
 Elverksindustrierna

Electrical Engineers. Date 13.9.48

COMPASSES.

Minimum distance between electric generators or motors and standard compass Transformer for wireless 8 metres
 Minimum distance between electric generators or motors and steering compass - " - 10 metres

The nearest cables to the compasses are as follows:—

A cable carrying .1 Ampères .4 metres .4 metres
 from standard compass from steering compass. (binnacle lights)
 A cable carrying 1 Ampères 1.5 metres 1 metre
 from standard compass from steering compass. (clear sight apparatus)
 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 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 0 degrees on - course in the case of the standard compass, and 0 degrees on - course in the case of the steering compass.

Builder's Signature. Date.....

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

Plans. Are approved plans forwarded herewith No If not, state date of approval 16.4.48.

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith None

General Remarks (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.).....

NOTE:—

The cables used for the accommodation is of type E.D.B.L. and F.D.F.F. for wiring elsewhere as approved by Secretary's letter of the 31st March, 1948.

The electrical equipment of this vessel has been installed under Special Survey to my satisfaction. The workmanship and material are good.

Insulation tests have been carried out with satisfactory results.

The vessel is now equipped with E.S.D. and D.F.

*Noted
 P.S.
 16/10/48*

Total Capacity of Generators 11.4 Kilowatts.

The amount of Fee £	:	:	When applied for,19.....
Travelling Expenses (if any) £	:	:	
			When received,19.....

Paul Hedvall
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See minute on Skw. 6960

5m.4.30.—Transfer. (MADE AND PRINTED IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

