

Rpt. 13.

No. 5220

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

26 APR 1948  
Received at London Office

Date of writing Report 19th April 48 When handed in at Local Office 19th April 48 Port of Barcelona

No. in Survey held at Valencia Date, First Survey 8th March 47 Last Survey 20th May 1947  
Reg. Book 31798 on the Single Screw Steamer "RIA DE EL FERROL" Tons 2241.98  
(Gross 2241.98)  
(Net 1308.25)

Built at Stettin By whom built EstseeWrtf Sch. & Masch Yard No. - When built 1921

Owners Siderurgias Asturiana Port belonging to Cadiz

Electrical Installation fitted by - Contract No. - When fitted 1921

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

Have plans been submitted and approved yes System of Distribution Single wire Earth system Voltage of supply for Lighting 110

Heating - Power - Direct or Alternating Current, Lighting direct Power - 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 one, are shunt field regulators provided yes Is the compound winding connected to the negative or positive pole to negative

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing - Have certificates of test for machines under 100 kw. been supplied no and the results found as per rule - Are the lubricating arrangements and the construction of the generators as per rule yes Position of Generators Engine room, starboard aft

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 Engine room, starboard aft

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 slate, 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 yes 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 1 single pole blade switch

and for each outgoing circuit single pole blade switches

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 1 ammeters 1 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 none

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 yes, if otherwise than as per Rule are they of an approved type -, state maximum fall of pressure between bus bars and any point under maximum load 3 volts 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. Are cables laid under machines or floorplates, if so, are they adequately protected. Are cables in machinery spaces, galleys, laundries, etc., lead covered or run in conduit. State how the cables are supported and protected.

Are all lead sheaths, armouring and conduits effectually bonded and earthed. 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, where unarmoured cables pass through beams, etc., are the holes effectually bushed and with what material. Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule. Emergency Supply, state position and method of control.

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

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present, if so, how are they protected. 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 and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil, 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. Control Gear and Resistances, are they constructed and fitted as per Rule. 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 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. Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory.

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	6	110	57	450	Steam Engine - Atlas Werke - Bremen		
EMERGENCY	none							
ROTARY TRANSFORMER	none							

GENERATOR CABLES.

DESCRIPTION	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	6	1	25.8 mm	57	64	6	rubber lead and armoured	
EQUALISER								
EMERGENCY GENERATOR	none							
ROTARY TRANSFORMER: MOTOR	none							
GENERATOR	none							



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.

Number	Description	Quantity	Rating	Notes	Signature	Date
1	Electrical Engineers.	1				
2		1				

COMPASSES.

Minimum distance between electric generators or motors and standard compass about 12 metres

Minimum distance between electric generators or motors and steering compass about 10 metres

The nearest cables to the compasses are as follows:-

A cable carrying 0.54 Ampères 2 mts feet from standard compass 2 mts feet from steering compass.

A cable carrying - Ampères - feet from standard compass - feet from steering compass.

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 no

The maximum deviation due to electric currents was found to be 0.0 degrees on - course in the case of the

standard compass, and - degrees on - course in the case of the steering compass.

Builder's Signature Date

Is this installation a duplicate of a previous case - If so, state name of vessel -

Plans. Are approved plans forwarded herewith no If not, state date of approval 23-6-47

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith -

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

has been examined and found fitted satisfactorily in accordance with approved plans.

All tests have been carried out as required by the Society's Rules

The materials and workmanship are good

In my opinion, this installation is eligible to be Classed in this Society.

Notes. See 2/7/47

Total Capacity of Generators 6 Kilowatts.

The amount of Fee ... £	When applied for,	.....19.....
Fees charged as per S.S. report	When received,	.....19.....
Travelling Expenses (if any) £		

Signature of Surveyor to Lloyd's Register of Shipping

Committee's Minute Assigned See minute on fe machy rpt

5m. 4. 30. - Transferor. (MADE AND PRINTED IN ENGLAND.) (The Surveyors are requested not to write on or below the space for Committee's Minute.)