

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

of writing Report 21st Aug 1939 when handed in at Local Office 25th Aug 1939 Port of PIRAEUS Received at London Office AUG 30 1939

in Survey held at PIRAEUS Date, First Survey 9th Aug Last Survey 12th Aug 1939
Book. on the STEEL SC "TANAIS" (Number of Visits 3)

built at SUNDERLAND By whom built J. BLUMER & CO. Yard No. When built 1907-1
Movers S. SYNODINOS Port belonging to PIRAEUS

Electric Light Installation fitted by NIKOLAOS G. MANGOS Contract No. When fitted 1939-8

System of Distribution 2 WIRE
Pressure of supply for Lighting 110 volts, Heating volts, Power volts.

System or Alternating Current, Lighting DIRECT Power
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 overload YES, are they compound wound YES
Do they over compound 5 per cent. , if not compound wound state distance between each generator

Are more than one generator is fitted are they arranged to run in parallel , is an adjustable regulating resistance fitted in series with each shunt field

Are all terminals accessible and clearly marked YES, are they so spaced or shielded that they cannot be accidentally earthed, short circuited YES

Are the lubricating arrangements of the generators as per Rule YES
Position of Generators BOTTOM PLATFORM OF ENGINE ROOM, STARBOARD SIDE.

Is the ventilation in way of the generators satisfactory YES, are they clear of all inflammable material NO
Are they situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators GENERATOR IS FITTED 4FT FORWARD OF STORE, WHICH IS OF WOOD.

Are the generators protected from mechanical injury and damage from water, steam or oil YES, their axis of rotation fore and aft YES

Are the bedplates and frames of the generating plant efficiently earthed YES, are the prime movers and their respective generators in metallic contact YES

Are the Main Switch Boards, where placed FITTED TO FORWARD END OF E.R. STORE, WHICH IS WOOD, SET OF ASBESTOS BETWEEN STORE & SWITCH BOARD, & CARRIED ON BRACKETS

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

Are the 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

Are they situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards 2FT HORIZONTALLY FROM STORE and YES (MARBLE), is all insulation of high dielectric strength and of permanently high insulation resistance YES

Are the switchboards, if semi-insulating material is used, are all conducting parts connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework , and is the main switchboard effectively earthed YES.

Are the following fittings as per Rule, viz.: — spacing or shielding of live parts YES, accessibility of all parts YES, absence of fuses on back of board YES, proportion of omnibus fuses YES

Are the switchboards, individual fuses to voltmeter, pilot or earth lamp YES., connections of switches YES

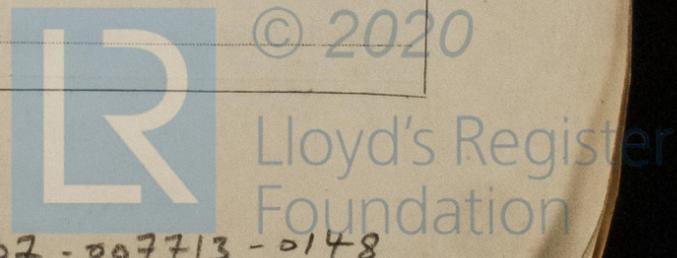
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches
MAIN SWITCH: 2 POLE, 60 AMP. 5: 2 POLE SWITCHES, 40 AMP

Instruments on main switchboard ONE ammeters ONE voltmeters synchronising device for paralleling purposes.

With Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system
2 LAMPS CONNECTED TO CIRCUIT AND EARTH.

Are the switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules (SWITCHES - YES.) FUSES ARE NOT IN ACCORDANCE WITH RULES

Are the main and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule YES.



Insulation of Cables, state type of cables, single or twin SINGLE AND TWIN are the cables insulated and protected as per Tables III or IV of the Rules Yes.

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load Not exceeded

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 PAPER COVERED

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 ALL CABLES ARE RUN THROUGH GALVANISED IRON TUBES, EXCEPT IN FORWARD Y AFTER ACCOMMODATION, Y IN WIRELESS ROOM, WHERE LEAD COVERED CABLE, IS SUPPORTED BY BRASS CLIPS, are the cap screws of brass ✓, are the cables run in If cables are run in wood casings, are the casings and caps secured by screws ✓, are the clips spaced as per Table VI YES

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements ✓

Joints in Cables, state if any, and how made, insulated, and protected NO JOINTS

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 Positions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed ✓ state the material of which the bushes are made ✓

Earthing Connections, state what earthing connections are fitted and their respective sectional areas Dynamo bed - plate earthed with copper strip 9 1/4" x 1/4". Switch board earthed to hull 2 1/2" x 1/4", are their connections made as per Rule YES

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule ✓

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven ✓

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 NO. THEY ARE FITTED IN WIRELESS ROOM ON BRIDGE DECK, IMMEDIATELY BELOW BRIDGE

has each navigation lamp an automatic indicator as per Rule NO, are separate screens provided for the use of oil and electric side lights NO

are separate oil lanterns provided for the mast head lights and side lights FOR MAST HEAD LIGHTS ONLY

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 ALL WIRING IN HOLDS & BUNKERS IS RUN THROUGH GALVANISED IRON PIPES

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected WIRING IN BUNKERS IS RUN THROUGH GALVANISED IRON PIPES, EXCEPT WIRELESS CIRCUIT, WHICH IS ARMOURD CABLE, how are the cables led ✓

where are the controlling switches situated MAIN SWITCH BOARD

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 ✓, are the coils self-contained and readily removable for replacement ✓

are the brushes, brush holders, terminals and lubricating arrangements as per Rule ✓, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material ✓

are they protected from mechanical injury and damage from water, steam or oil ✓ are their axis of rotation fore and aft ✓

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 as per Rule ✓

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, tights 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	4.6	110	50	400	SINGLE CYL. STEAM ENG.		
AUXILIARY		The main generator driving engine are						
EMERGENCY		second hand, following are only available						
		Particulars CASTLE DYNAMO No 3432						
ROTARY TRANSFORMER		J.H. HOLMES & Co. NEWCASTLE ON TYNE, 110 V					50A 400 REYS.	

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								
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.0019	1	.05"		318 FT.	RUBBER & COTTON FIBRE	RUN IN GALVANISED IRON TUBING.
	BOILER ROOM	2	.0019	1	.05"		120 FT.	- DO -	- DO -
	WIRELESS	2	.008	7	.04"		138 FT.	RUBBER.	LEAD & ARMOUR COVERED.
	SEARCHLIGHT				NONE				
	MASTHEAD LIGHT	2	.0019	1	.05"		230 FT. MAST	RUBBER & COTTON FIBRE	RUN IN GALVANISED IRON TUBING.
	SIDE LIGHTS	2	.0019	1	.05"		96 FT.	RUBBER	RUN IN GALVANISED IRON TUBING TO PORTABLE PUMP.
	COMPASS LIGHTS	1	.0019	2	.05"		29.25 FT.	RUBBER	LEAD COVERED
	POOP LIGHTS	1	.0019	1	.05"			RUBBER	RUN IN GALVANISED IRON TUBING.
	CARGO LIGHTS				NONE				
	ARC LAMPS				NONE				
	HEATERS				NONE				

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								
	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 _____

COMPASSES.

Distance between electric generators or motors and standard compass _____
 Distance between electric generators or motors and steering compass _____
 The nearest cables to the compasses are as follows:—
 A cable carrying _____ Ampères _____ feet from standard compass _____ 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 _____
 Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted _____
 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.

Builder's Signature. Date _____

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 electrical installation*)
of this vessel as now fitted is in good & safe working condition & constructed as far as practicable in conformance with Rule requirements, the workmanship, & materials used being good throughout.

*The main switch board fuses are not constructed in accordance with Rule requirements, but the Owner states that they will be replaced by the required type on vessel's arrival in U.K.
 Rule type fuses not obtainable at this Port.*

Total Capacity of Generators 4.6 Kilowatts

The amount of Fee ... £ 5 : 0 :
 Travelling Expenses (if any) £ : ✓ :
 When applied for, 18/8/1939.
 When received, 22/8/1939.
R. G. K.

R. G. K. for R. F. Balfour & L. Rodger.
 Surveyors to Lloyd's Register of Shipping.

12 SEP 1939

Committee's Minute _____

Assigned _____

Im. 92. — Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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