

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report.....19..... When handed in at Local Office.....**1 APR 1942**..... Received at London Office.....**13 APR 1942**.....

No. in Survey held at Walker Reg. Book. 35729 on the BAITYK Date, First Survey 20/2/42 Last Survey 18/3/42 1942

Port of Newcastle on Tyne (Number of Volls.....) 7001

Built at Walker By whom built Swan Hunter & Wigham Richardson Yard No. 1704 When built 1942 Tons { Gross 7001 Net 5121 No. 5750

Owners Polynia - America Shipping Lines Ltd Port belonging to Polynia Poland

Electrical Installation fitted by Clark Chapman & Co Ltd Contract No. When fitted 1942

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 wire Voltage of supply for Lighting 110

Heating no Power Yes Direct or Alternating Current, Lighting direct Power direct 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 Yes, are they 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 Yes

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 test for machines under 100 kw. been supplied Yes 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 Engine room starboard

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, after bulkhead near generators

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 Sundamp, 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 Double pole single throw quick break knife switches for generators, and double pole fuses

and for each outgoing circuit Single pole quick break double throw knife switches 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 coupled to earth through switches

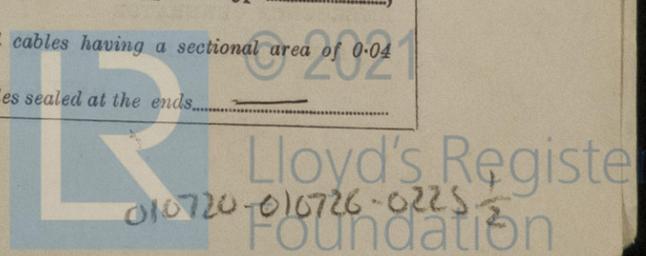
Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an approved type Yes, are all fuses labelled as per Rule Yes

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'

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.....



MAIN DISTRIBUTION CABLES.

DESCRIPTION	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead 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.			
AUX. SWITCHBOARDS AND SECTION BOARDS ...							

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	DB.	1	7/064	13.5	46	300'	VIR	In galv steel tube
NAVIGATION LIGHTS		1	7/036	5	24	320'		
LIGHTING AND HEATING								
Engine-boiler rooms	DB.	1	7/036	14.5	24	40'		
Saloon & forward		1	19/052	26.5	64	300'		
Engine room Starboard (main)		1	7/064	13.0	46	100'		
" Port (from main)		1	7/029	7.5	15	60'		
Aft accom		1	7/064	13.5	46	400'		

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Profing	1	2 1/2	1	7/064	21	46	300'	VIR In galv steel tube.

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. Yes, if so, are they adequately protected. Yes. Are cables in machinery spaces, galleys, laundries, etc., lead covered. or run in conduit. Yes. State how the cables are supported and protected. Main cables engine & boiler room V.I.R. run in galvanized steel tube. In accommodation spaces LC cable clipped to wood battens

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. Yes and with what material. Lead. 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. 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. 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. Yes. Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. Yes, if so, how are they protected. and where are the controlling switches fitted. are all fittings suitably ventilated. are all fittings and accessories constructed and installed as per Rule. 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. 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 200 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. Yes. 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.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	12.5	110	113	600	Steam		
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 Per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR	12.5	1	37/083	113	184	30'-0"	VIR	In steel galv steel tube
" " EQUALISE	12.5	1	37/083	113	184	30'-0"	VIR	
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR ...								

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.

For Clarke, Chapman & Co., Ltd.

W. Taylor
 Director

Electrical Engineers.

Date 24/3/42

COMPASSES.

Minimum distance between electric generators or motors and standard compass 128'-0"

Minimum distance between electric generators or motors and steering compass 120'-0"

The nearest cables to the compasses are as follows:—

A cable carrying 1 Ampères inside feet from standard compass 10 feet from steering compass.

A cable carrying 1 Ampères 10' feet from standard compass inside 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 Yes

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

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

SWAN, HUNTER & CO. LTD.

Thos Morrison
 Director

Builder's Signature.

Date

Is this installation a duplicate of a previous case YES If so, state name of vessel Empire Foam

Plans. Are approved plans forwarded herewith _____ If not, state date of approval 25/2/42

Certificates. Are certificates of test for motors engaged on essential services and generators forwarded herewith No

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

The electrical equipment of this vessel was installed in accordance with the approved plans. The materials used are of good quality and the workmanship is good. On completion the equipment was operated under working conditions with satisfactory results and the insulation resistance of all circuits and apparatus measured and found good:— This equipment is in my opinion suitable for a classed vessel.

*Noted
 F.H.
 10/4/42*

Total Capacity of Generators 25 Kilowatts.

The amount of Fee ... £ 20:0 :
 Travelling Expenses (if any) £ :
 When applied for, 10 APR 1942
 When received, _____

W. H. Cornell
 Surveyor to Lloyd's Register of Shipping.

TUE. 21 APR 1942

Committee's Minute _____

Assigned See Nav. 20 100318

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



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