

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 9-2- 1938 When handed in at Local Office 10-2- 1938 Port of Leith
 No. in Survey held at Burntisland Date, First Survey 6-1-38 Last Survey 4-2- 1938
 Reg. Book. on the S.S. "NORMAN QUEEN." (Number of Visits 6)
 Tons { Gross 956.62
 Net 540.65
 Built at Burntisland By whom built Burntisland S. S. Co. Ltd. Yard No. 216 When built 1938
 Owners British Channel Islands S. S. Co. Ltd. Port belonging to London
 Electric Light Installation fitted by Burntisland S. S. Co. Ltd. Contract No. 216 When fitted 1938
 Is the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution TWO WIRE LEAD & RETURN. ✓
 Pressure of supply for Lighting 110 ✓ 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 temperature rise 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 _____, is an adjustable regulating resistance fitted in series with each shunt field _____ Have certificates of test results for machines under 100 kw. been submitted and approved YES. ✓ Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing _____
 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 ✓ Are the lubricating arrangements of the generators as per Rule YES ✓
 Position of Generator ENGINE ROOM. 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 Board, where placed ENGINE ROOM 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 _____ and _____, 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. ✓, is it of an approved type YES. ✓, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework YES ✓, is the non-hygroscopic insulating material of an approved type 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. ✓, temperature rise of omnibus bars YES ✓, individual fuses to voltmeter, pilot or earth lamp YES ✓, are moving parts of switches alive in the "off" position NO ✓ are all screws and nuts securing connections effectively locked YES ✓ are any fuses fitted on the live side of switches NO ✓ Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches DOUBLE POLE MAIN SWITCH 50 AMP CAPACITY AND SINGLE POLE SWITCHES ON OUTGOING CIRCUITS. ✓
 Are turbine driven generators fitted with emergency trip switch as per rule _____ Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material YES. ✓ Instruments on main switchboard ONE ✓ ammeter ONE ✓
 voltmeters _____ synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection _____
 Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system EARTH LAMPS. ✓
 Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YES ✓ are the fusible cutouts of an approved type YES. ✓ have the reversed _____


current protection devices been tested under working conditions
construction, protection, insulation, material, and position of these as per rule
Cables: Single, twin, ~~conductor~~ or ~~multiple~~ SINGLE & TWIN. are the cables insulated and protected as per Tables IV, V, X or XI of the Rules
If the cables are insulated otherwise than as per Rule, are they of an approved type
any point of the installation under maximum load
area of 0.04 square inch and above provided with soldering sockets
If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound
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
Support and Protection of Cables, state how the cables are supported and protected
If cables are run in wood casings, are the casings and caps secured by screws
separate grooves
Refrigerated Chambers, are the cables and fittings in accordance with the special requirements
Joints in Cables, state if any, and how made, insulated, and protected
Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands
holes efficiently bushed
Earthing Connections, state what earthing connections are fitted and their respective sectional areas
are their connections made as per Rule
Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule
position and method of control of the emergency supply and how the generator is driven
Navigation Lamps, are these separately wired
are the switches and fuses grouped in a position accessible only to the officers on watch
has each navigation lamp an automatic indicator as per Rule
Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight
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
are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected
where are the controlling switches situated
are all fittings suitably ventilated
Heating and Cooking Appliances, are they constructed and fitted as per Rule
Searchlight Lamps, No. of
Arc Lamps, other than searchlight lamps, No. of
Motors, are their working parts readily accessible
are the brushes, brush holders, terminals and lubricating arrangements as per Rule
inflammable gases cannot accumulate and clear of all inflammable material
water, steam or oil
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
have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing
field and motor speed regulators, starters and controllers constructed and fitted as per Rule
are required, are these fitted as per Rule
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
If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office
Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule

Joint Boxes, Section and Distribution Boards, is the
YES
Fall of Pressure, state maximum between bus bars and
Cable Sockets, are the ends of all cables having a sectional
Paper Insulated and Varnished Cambric Insulated Cables,
Cable Runs, are the cables fixed as far as possible in accessible positions
SUPPORTED WITH CLIPS & SECURED WITH
SCREWS
are the cap screws of brass
are the cables run in
YES
EARTHED BONDING CLAMPS
ON EACH MAIN AND SUBSIDIARY CABLES
YES
Emergency Supply, state
YES
are the fuses double pole
YES
Secondary Batteries, are they constructed and fitted as per Rule
YES
are they fitted as per Rule
No
No
how are the cables led
YES
are air heaters constructed and fitted as per Rule
are their fittings as per Rule
are their fittings as per Rule
are the coils self-contained and readily removable for replacement
are they protected from mechanical injury and damage from
if situated near unprotected woodwork or other combustible
and
Control Gear and Resistances, are the generator
Lightning Conductors, where lightning conductors

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No. of	RATED AT				Revs. per Min.	DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Fuel Used.			Flash Point of Fuel.	
MAIN	1	4	110	36.3	✓	Steam engine	✓		
AUXILIARY									
EMERGENCY									
ROTARY TRANSFORMER									

GENERATOR, LIGHTING AND HEATING CONDUCTORS.									
DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR	ONE	.0145	7	.052	35.6	37 /	12	RUBBER	L.C. & S.W.A.
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER } MOTOR GENERATOR									
ENGINE ROOM... ..	ONE	.003	3	.036	6	12 /	40	RUBBER	L.C. & S.W.A.
BOILER ROOM... ..									
AUXILIARY SWITCHBOARDS									
NAVIGATION	ONE	.003	3	.036	4	12 /	250	RUBBER	L.C. & S.W.A.
ACCOMMODATION SALOON	ONE	.007	7	.036	12	22 /	220	RUBBER	L.C. & S.W.A.
ENGINEERS	ONE	.003	3	.036	5	12 /	54	RUBBER	L.C. & S.W.A.
MECH. STOKER	ONE	.003	3	.036	8.6	12 /	72	RUBBER	L.C. & S.W.A.
WIRELESS									
SEARCHLIGHT									
MASTHEAD LIGHT									
SIDE LIGHTS									
COMPASS LIGHTS									
POOP LIGHTS									
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

MOTOR CONDUCTORS.										
DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT. AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
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										



© 2020

All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

FOR THE BURNTISLAND SHIPBUILDING CO., LTD.

W. J. D. G. L.
CHAIRMAN AND MANAGING DIRECTOR

Electrical Engineers.

Date 9th February, 1938.

COMPASSES.

Distance between electric generators or motors and standard compass 140'-0" /

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying 36 / Ampères 7" / feet from standard compass 7" / 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 YES. /

The maximum deviation due to electric currents was found to be Nil / degrees on ANY / course in the case of the standard compass, and / degrees on / course in the case of the steering compass.

FOR THE BURNTISLAND SHIPBUILDING CO., LTD.

W. J. D. G. L.
CHAIRMAN AND MANAGING DIRECTOR

Builder's Signature.

Date 9th February, 1938.

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, etc.) This installation has been efficiently fitted on board in accordance with the rules. The materials and workmanship are sound and good, and the installation was found satisfactory under full load and working conditions.

Noted.

Chalk
11-2-38

Total Capacity of Generators 4 Kilowatts.

The amount of Fee ... £ 4 : 0 : 0 When applied for, 10-2-38.

Travelling Expenses (if any) £ : / : 19/2 19 38 When received.

J. J. Campbell
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 18 FEB 1938

Assigned Su J. B. report