

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report.....19..... When handed in at Local Office.....21 JAN 1941..... Port of.....HULL.....
 No. in Survey held at.....Goole..... Date, First Survey.....8.11.40..... Last Survey.....18.12.1940.....
 Reg. Book.....
 on the.....Single Screw Motor Vessel....."EMPIRE CLIFF"..... Tons {Gross.....873.....
 Net.....459.....
 Built at.....Goole..... By whom built.....Goole S. B. & R. Co. Ltd..... Yard No.....357..... When built.....1940.12.....
 Owners.....The Ministry of Shipping..... Port belonging to.....Goole.....
 Electrical Installation fitted by.....The Humber Electrical Engineering Co. Ltd..... Contract No...../..... When fitted.....1940.12.....
 Is vessel fitted for carrying Petroleum in bulk.....No..... Is vessel equipped with D.F.....No..... E.S.D.....No..... Gy.C.....No..... Sub.Sig.....No.....

Have plans been submitted and approved.....Yes..... System of Distribution.....Parallel Constant Pressure..... Voltage of supply for Lighting.....220.....
 Heating...../..... Power.....220..... Direct or Alternating Current, Lighting.....Direct..... Power.....Direct..... If Alternating Current state frequency...../..... Prime Movers,
 has the governing been tested and found efficient when the whole 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.....
 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.....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 Side 25 K.W. Forward.
 12 K.W. 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 adjacent to Generator
 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.....Simdango....., if of synthetic insulating material is it an Approved Type.....Yes....., 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 overhead contact breaker to each generator
 and for each outgoing circuit.....D.P. linked change-over switches + fuses.....
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule...../..... Instruments on main switchboard.....2.....
 ammeters.....One..... 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.....

12012

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, are the reversed current protection devices connected on the pole opposite to the equaliser connection. Yes, have they been tested under working conditions. ✓ 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. Yes, state maximum fall of pressure between bus bars and any point under maximum load. 6 volts power 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 exposed 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 floor plates. 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. Blipped to steel + woodwork. In conduit through Rolds

Engine Room

Are all lead sheaths, armouring and conduits effectually bonded and earthed. Yes Refrigerated chambers, are the cables and fittings as per Rule. None 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. Yes Emergency Supply, state position. None 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. None, are they adequately ventilated. ✓ 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 None, whether fixed or portable. ✓, are their fittings as per Rule. ✓ Heating and Cooking, is the general construction as per Rule. None, 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 distances from same horizontally. ✓ and vertically. ✓

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. 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. ✓ If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type. ✓ 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 megger 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	One	25	220	114	1000	40 HP Diesel Engine	Heavy Oil	150° F
	"	12	"	54	1000	"	"	"
	One	25	220	114	1000	40 HP Diesel Engine	"	"
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return test).	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	25	One	37/064	114	130	18	V.I.R.	In conduit
"	12	"	19/052	54	64	24	do.	do.
	25	"	37/064	114	130			
EMERGENCY GENERATOR	✓							
ROTARY TRANSFORMER: MOTOR	✓							
"	✓							

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS								
Navigation	One	7/036	4	24	75	V.I.R.	h.c.	In conduit
Accommodation	One	7/036	14	24	125	"	h.c.	h.c.

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS	One	3/036	10	70	V.I.R.	h.c.
NAVIGATION LIGHTS	One	3/036	10	100	V.I.R.	h.c.
	"	10/0076	10	100	V.I.R.	h.c.
Rel lighting sub circuits	One	1/044	5	120	V.I.R.	h.c.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
Steering Engine	1	4 1/4	One	7/044	20	31	110	V.I.R. In conduit
Winches	1	17	"	19/052	68.5	64	370	do
Winches	2	11	"	19/052	48	64	330	do
Bilge pumps	1	5	"	7/044	21	31	70	do
Ballast pump	1	7 1/2	"	7/044	31	31	60	do
Papstern	1	14	"	19/052	56	64	90	do



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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.

W.E. P. H. ...

Electrical Engineers.

Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass

40

Minimum distance between electric generators or motors and steering compass

30

The nearest cables to the compasses are as follows:—

A cable carrying 20 Ampères 10 feet from standard compass 5 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 Nil degrees on any course in the case of the steering compass.

THE DOOLE SHIPBUILDING & REPAIRING CO. LTD.

Builder's Signature.

Date

Is this installation a duplicate of a previous case

Similar to

If so, state name of vessel

M.V. SEQUACITY.

with minor differences.

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

This electric installation has been fitted on board under Special Survey in accordance with the Rules & the approved plans the workmanship & materials are good & when tested as prescribed by the Rules it was found satisfactory in every respect.

Noted

30/1/41

Total Capacity of Generators 37 Kilowatts.

The amount of Fee ... £ :

When applied for,

.....19.....

Travelling Expenses (if any) £ :

When received,

.....19.....

TUE 25 FEB 1941

Committee's Minute

Assigned

See minute

on meby lps.

D. J. ...

Surveyor to Lloyd's Register of Shipping.