

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

9 JUL 1942

Received at London Office.....

Date of writing Report. 27-5-1942 When handed in at Local Office.....19..... Port of Middlesbrough

No. in Survey held at Haverhill-on-Sea Date, First Survey 16-4-42 Last Survey 27-5-1942
Reg. Book. 36462 on the S/S. "EMPIRE BEAUMONT".

Built at Haverhill-on-Sea By whom built James S. Bell & Co. Ltd. Yard No. 345 When built 1942

Owners The Ministry of War Transport. Port belonging to Middlesbrough
Electrical Installation fitted by James Shephardson & Co. Ltd. Contract No. 345 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 insulated Voltage of supply for Lighting 110

Heating. Power 110 Direct or Alternating Current, Lighting. Yes Power Yes 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. 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

positive. 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 situated on raised platform

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. on raised platform by generators on

starboard side of engine room

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. "Sundae" 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. a double-pole

single-throw-quick break knife switch and double-pole fuse.

and for each outgoing circuit. a double-pole, single-throw, quick-break knife switch and

double pole fuse.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule. Yes Instruments on main switchboard. Two

ammeters. Two 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. Elements connected to E. through main bus & fuses.

Switchboard 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

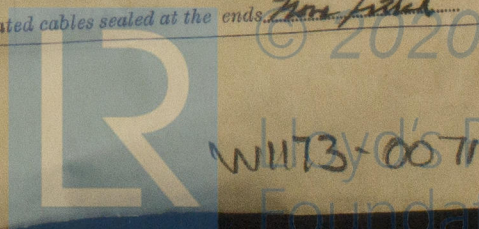
protection devices connected on the pole opposite to the equaliser connection. have they been tested under working conditions, and at what current

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. 25 lb. 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. Yes fitted



Are all lead sheaths, armouring and conduits effectively 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 teak Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule yes Emergency Supply, state position

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. —

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 two portable, 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 20 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 . A

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. *None listed*

Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing..... Have certificates of test for motors and

100 BHP intended for essential services been supplied and the results found as per Rule..... Control Gear and Resistances, are they constructed as

fitted as per Rule yes Lightning Conductors, where required are they fitted as per Rule no Ships carrying Oil having a flash point below 60° F. are all fuses of the cartridge type. no

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 _____
 _____ for the fittings for gun rooms, 'tween deck spaces, etc., in accordance with the special requirements for such _____

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 400, 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.

PARTICULARS OF GENERATING PLANT.							WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	Fuel Used.	Flash Point of Fuel.
		Kilowatts.	Volts.	Ampères.	Revs. per Min.			
MAIN	2	15	110	136.5	550.	Single Cylinder Steam Engine.		
...								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (load plus return feet).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Fols.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR No 1...	15	1	37/072	136.5	152	40	V.I.R.	H.R.+B.
" " EQUALIZER ...	15	1	37/072	136.5	152	44	V.I.R.	H.R.+B.
EMERGENCY GENERATOR ...								
ROTARY TRANSFORMER: MOTOR ...								
" GENERATOR ...								

MAIN DISTRIBUTION CABLES

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA- TED 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 ...							
apt accommodation D.B.	1	7/064	10	46	410	V.I.R.	H.R. 7 B.
engine Room D.B.	1	7/044	20	31	35	V.I.R.	H.C.A.T.B.
Charge Ldg. D.B.	1	7/044	16	31	130	V.I.R.	H.R. 7 B.
Engineers accommodation D.B.	1	7/044	16	31	130	V.I.R.	H.R. 7 B.
Officers accommodation D.B.	1	4/064	18	46	380	V.I.R.	H.R. 7 B.

LIGHTING AND HEATING, ETC., CABLES

DESCRIPTION	QTY	UNIT	PRICE	TOTAL	DATE	BY
WIRELESS	1	Y-064	15	46	470	7-18
NAVIGATION LIGHTS	1	7-044	6	31	464	"
LIGHTING AND HEATING	(attention paid from officers accommodation distribution box)					
E. & S. Supply	1	7-026	6	24	260	7-18
Emergency N.Y. Supply	1	7-044	-	31	150	"
Edgington Oil Tanks	1	7-029	9	15	30	"

MOTOR CABLES

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.
<i>Refrigerating Motors</i>	<i>1</i>	<i>2.5</i>
	<i>1</i>	<i>7/236</i>
	<i>22-5</i>	<i>24</i>
	<i>450</i>	<i>7-1-A</i>
		<i>S.R.T.B.</i>

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.

Whalley Electrical Engineer Date 25-6-42

COMPASSES.

Minimum distance between electric generators or motors and standard compass 192'

Minimum distance between electric generators or motors and steering compass 198'

The nearest cables to the compasses are as follows:—

A cable carrying 14 Ampères 7 feet from standard compass on the feet from steering compass.

A cable carrying 14 Ampères on the feet from standard compass 7 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.

FOR FURNESS SHIPBUILDING CO. LTD

C. W. Thompson

DIRECTOR

Builder's Signature. Date 25-6-42

Is this installation a duplicate of a previous case No If so, state name of vessel —

Plans. Are approved plans forwarded herewith No If not, state date of approval D. 11-11-41 5. 18-11-41

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

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

The electrical equipment of this vessel has been installed under special survey in accordance with the approved plans and the Ministry of Shipping Specification and amendments thereto. The materials used are of good quality and design and the workmanship is good. On completion, the equipment was operated under load with satisfactory results and the insulation resistance of each circuit was measured and found good. This equipment is in my opinion suitable for a classed vessel.

Noted

Then

22.7.42

Total Capacity of Generators (Ex 15) 30 Kilowatts.

The amount of Fee ... £ 22 10 0.

Supervision Fee 5 10 6

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

When applied for,

7th July, 1942

When received.

19.....

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See Mdb JE 17278



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