

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of Writing Report 26<sup>th</sup> Sept 1946 When handed in at Local Office 12.10.46 Port of Glasgow Received at London Office 17.10.46

No. in Survey held at Glasgow Date, First Survey 2.8.46 Last Survey 30<sup>th</sup> Sept 1946  
 Reg. Book. " (Number of Visits 8)

85880 on the M.V. BRITISH KNIGHT Tons { Gross 8629  
 Net 4999

Built at Glasgow By whom built Harland & Wolff Ltd Yard No. 13074 When built 1946

Owners British Tanker Co. Ltd. Port belonging to London

Electrical Installation fitted by Harland & Wolff Ltd. Contract No. 13074 When fitted 1946

Is vessel fitted for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. No

Have plans been submitted and approved Yes System of Distribution two wire Voltage of supply for Lighting 110

Heating — Power 110 Direct or Alternating Current, Lighting D.C. Power D.C. 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, if not compound wound state distance between generators — and from switchboard 31 Where more than one generator is fitted are they arranged to run in parallel Yes, 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 in engine room 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 112 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 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 140, what insulation material is used for the panels Sindampo, 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 circuit breaker fitted with O/L and R/C trips and interlocked equaliser switch.

and for each outgoing circuit Double pole switch and fuses.

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 4 ammeters 2 voltmeters — synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided earth lamps.

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 Full Load are the reversed current protection devices connected on the pole opposite to the equaliser connection Yes, have they been tested under working conditions, and at what current did they operate 15% F.L. 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 6 volts, 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

PARTICULARS OF GENERATING PLANT.

## GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return fest).	INSULATED WITH.	HOW PROTECTED.
		No. in Parallel For Foils.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... ..	30	1	37/.083	273	296	72	V.C.	LC A.B.
" " EQUALISER ... ..	—	1	19/.083	—	191	36	"	"
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

[illegible]

WIRELESS	1	7.064	30	46	✓	180	Rubber	L.C.
NAVIGATION LIGHTS & D.B. 1.	1	7.044	20	31	✓	190	"	"
LIGHTING AND HEATING		MASTERBOARD POWER				CIRCUITS.		
RADAR TYPE 268	1	19.064	50	83	✓	190	"	"
BOAT WINCH PORT.	1	7.044	16.7	31	✓	180	"	L.C.B.
" " STARBOARD.	1	7.044	16.7	31	✓	120	"	"
THERMOTANK FAN N°1.	1	7.036	17	24	✓	90	"	"
" " N°2	1	7.036	17	24	✓	90	"	"
HOSPITAL AIR COMPRESSOR	1	7.036	14	24	✓	60	"	"
		MASTERBOARD LIGHTING				CIRCUITS		
SUEZ CANAL PROJECTOR	1	7.064	—	46	✓	600	Rubber	L.C. & LCAB.
D.B. N°3.	1	7.064	34	46	✓	16	"	L.C.B.
D.B. N°2	1	7.052	23	37	✓	112	"	"
D.B. N°5	1	7.036	18	24	✓	10	"	"
MAST FLOODLIGHTS D.B N°4	1	7.036	7	24	✓	160	"	L.C.

[illegible]

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 HARLAND AND WOLFF, LIMITED

Electrical Engineers.

Date

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 13 feet from W/T Motor Generator

Minimum distance between electric generators or motors and steering compass 12 " " " " "

The nearest cables to the compasses are as follows:—

A cable carrying 2 Ampères led into feet from standard compass led into feet from steering compass.

A cable carrying 3.5 Ampères 6 feet from standard compass 6 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.

For HARLAND AND WOLFF, LIMITED

Builder's Signature.

Date

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 14-5-46

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 fitted on board under special survey, tested under working conditions and found satisfactory. The materials and workmanship are good.

Noted 30.10.46

Total Capacity of Generators 90 Kilowatts.

The amount of Fee £ 31 : 10 :

When applied for,

3579/46

Travelling Expenses (if any) £ :

When received.

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J. W. Wright  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 OCT 1946

Assigned SEE ACCOMPANYING MACHINERY REPORT



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Foundation