

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

10 MAY 1943

Date of writing Report. 27-4-1943 When handed in at Local Office. 4<sup>th</sup> May 1943 Port of MiddlesbroughNo. in Survey held at Haverlin Hill-on-Tees Date, First Survey 23-2-43 Last Survey 21-4-1943  
Reg. Book. 85756 on the M.V. "BRITISH PURPOSE" (Number of Visits.....)Tons { Gross 584.5  
Net 316.4

Built at Haverlin Hill-on-Tees By whom built Furness Shipbuilding Co Ltd Yard No. 348 When built 1943

Owners British Tanker Co Ltd Port belonging to London

Electrical Installation fitted by Furness Shipbuilding Co Ltd Contract No. 348 When fitted 1943

Is vessel fitted for carrying Petroleum in bulk. Yes 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. 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

positive. Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing. None fitted 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 forward of main hatch on framed

shells, 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 forward bulkhead on platform

above 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. "Lindensap" 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 switches. a double pole, single

throw quick-break knife switch and double pole cartridge type fuse: D.P.C.O knife switch to

supply D.G. to be supplied by either generator.

and for each outgoing circuit. a double pole, double throw knife switch and double pole cartridge type

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. E. lamps coupled to E. through switches and fuses

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. less than 4.4 V. 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.							
DESCRIPTION OF GENERATOR.	No. of	RATED AT			DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.		Revs. per Min.	Fuel Used.
MAIN ... ..	2	30	110	275	600	Single Cylinder Vertical Steam Engine	
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 ... ..	50	1	37/063	273	296	50	V.C.	L.C.A.B.
" " EQUALISER ... ..	30	1	37/063	273	296	50	V.C.	L.C.A.B.
EMERGENCY GENERATOR ... ..								
ROTARY TRANSFORMER: MOTOR ... ..								
" " GENERATOR ... ..								

[illegible]

LIGHTING AND HEATING, ETC., CABLES.							
WIRELESS	...	...	...	...	...	...	...
NAVIGATION LIGHTS	...	...	...	...	...	...	...
LIGHTING AND HEATING	...	...	...	...	...	...	...
Engine Room Lighting DB.	1	7-044	24	42	100	Y.C.	L.C.B.
Emergency Light	1	7-044	18	42	120	"	"
Midship Light DB (off deck head)	1	7-044	30	42	30	V.C.	L.C.A.B.
Emergency Light	1	7-044	-	42	200	"	"
Midship Light DB (off deck head)	1	7-044	26	42	50	"	L.C.B.
Emergency Light DB (off deck head)	1	7-044	30	42	70	"	L.C.A.B.
" " " B " " "	1	7-044	24	42	10	"	"
Emergency Light DB " " " "	1	7-044	3	28	72	"	"
Emergency Light DB (off deck head)	1	7-029	3	15	320	"	"

[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.

FURNESS SHIPBUILDING CO. LIMITED

P. P. Glover

Electrical Engineers.

Date 3-5-43

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass 180'

Minimum distance between electric generators or motors and steering compass 176

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.

Builder's Signature.

Date 3-5-43

J. M. Robertson

Secretary.

Is this installation a duplicate of a previous case Yes If so, state name of vessel M/V. "BRITISH VIGOUR"

Plans. Are approved plans forwarded herewith No If not, state date of approval 4-6-42

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. 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

12/5/43.

Total Capacity of Generators (2x30) 60 Kilowatts.

The amount of Fee ... £28. 10. 0.

When applied for, 7/5/1943

Travelling Expenses (if any) £ :

When received, 19

Surveyor to Lloyd's Register of Shipping.

S. D. Ward

Committee's Minute

FRI. 14 MAY 1943

Assigned

See fe machs rpt