

## REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report... 25-1-1946 When handed in at Local Office... 13-3-46 Port of MiddlesbroughNo. in Survey held at Thornton Hill on Tees Date, First Survey 23-11-45 Last Survey 24-1-1946  
Reg. Book. (Number of Visits... 7...)on the S.S. "WAVE SOVEREIGN" Tons { Gross 8182  
Net 4559Built at Thornton Hill on Tees By whom built Furness Shipbuilding Co. Ltd Yard No. 364 When built 1945Owners The Admiralty Port belonging to LondonElectrical Installation fitted by Furness Shipbuilding Co. Ltd Contract No. 364 When fitted 1945Is vessel fitted for carrying Petroleum in bulk yes Is vessel equipped with D.F. yes E.S.D. yes Gy.C. yes Sub.Sig. NoHave plans been submitted and approved yes System of Distribution Two wire insulated Voltage of supply for Lighting 110Heating - 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 atrip 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 theyarranged to run in parallel Yes, are shunt field regulators provided yes Is the compound winding connected to the negative or positive polenegative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing - Have certificates oftest for machines under 100 kw. been supplied yes and the results found as per rule yes Are the lubricating arrangements and the constructionof the generators as per rule yes Position of Generators on raised platform above L.P. Brakesis the ventilation in way of generators satisfactory yes are they clear of inflammable material yes, if situatednear unprotected combustible material state distance from same horizontally - and vertically -, are the generators protected from mechanicalinjury and damage from water, steam and oil yes, are the bedplates and frames earthed yes and the prime movers and generators in metalliccontact yes Switchboards, where are main switchboards placed on angle-iron frame adjacent to generatorsare they in accessible positions, free from inflammable gases and acid fumes yes, are they protected from mechanical injury and damage from water, steamand oil yes, if situated near unprotected combustible material state distance from same horizontally - and vertically -, what insulationmaterial is used for the panels strong "Birkdunyo", if of synthetic insulating material is it an Approved Type yes, if ofsemi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule - Is the frame effectually earthed yesIs the construction as per Rule yes, including accessibility of parts yes, absence of fuses on the back of the board yes, individual fusesto 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, singlethrow, quick-break knife switch & double pole cartridge-type fuse.and for each outgoing circuit a double-pole, double throw, quick-break knife switch and double-pole cartridge-type fuseAre compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard Twoammeters Two voltmeters - synchronising devices. For compound machines in parallel is the ammeter connected on the pole opposite to theequaliser connection - Earth Testing, state means provided E. lamps coupled to E. through sub fuses.Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an approved type yes, are all fuses labelled asper Rule yes If circuit breakers are provided for the generators, at what overload current did they open when tested -, are the reversed currentprotection devices connected on the pole opposite to the equaliser connection -, have they been tested under working conditions, and at what currentdid they operate - Joint Boxes, Section Boards and Distribution Boards, is the construction and position as per Rule yesCables, 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 7.6%, are the ends of all cables having a sectional area of 0.04square 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	273	684	Single Cylinder Vertical Steam Engines	
EMERGENCY ...							
ROTARY TRANSFORMER							

[illegible]

WIRELESS	(off sub. Mitchell)	1	7/064	50	45	160	P.C.	L.C.
NAVIGATION LIGHTS	main	1	7/044	22	42	140	"	"
LIGHTING AND HEATING	Emergency	1	7/044	-	42	140	"	" (C.O.S. in Chesterton)
Engines Run	4 1/2 DB "E"	1	7/044	25	42	200	"	L.C.A.B.
"	" " "F"	1	7/044	22	42	40	"	"
A/C Cargo	4 1/2 DB "C"	1	7/029	2	15	120	"	"
A/C Distribution	4 1/2 DB "A"	1	7/052	33	57	140	"	"
"	" " "B"	1	7/052	32	57	120	"	"
Midship	4 1/2 DB "H" (off sub. Mitchell)	1	7/044	10	42	100	"	L.C.
Port	4 1/2 DB "I" " "	1	7/044	5	42	320	"	L.C.A.B.
Starboard	4 1/2 " " " "							
Midship Cargo	4 1/2 " " " "							
Searchlight	4 1/2 " " " "							
Officer Midship	4 1/2 " " " "							
Radio Sounding Circuit	" " " "	1	7/036	10	28	130	V.C.	L.S.
4-70 Compens	" " " "	1	7/044	15	42	60	"	"
Ruler	" " " "	1	7/044	27	42	130	"	"

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.							
Engine for Tank Pw. (off Macky SB)	1	3	1	7/044	20	42	310	Y.C.	L.C.F.B.
" " " " " " " " " "	1	3	1	7/044	20	42	310	"	"
Oil Pacific Pw.	1	5	1	11/064	5	10	85	"	"
" " " " " " " " " "	1	5	1	11/064	5	10	85	"	"
Tramway 4 car	1	8	1	7/064	61	75	330	"	"
Sec. V.P. Tank (off V. Tank off SB)	1	3 1/2	1	7/064	27	42	210	"	L.C.
" " " " " " " " " "	1	4.9	1	7/064	36	42	150	"	L.S.
Eng. for Pacific (off Main for Broad)	1	1	1	7/029	7	15	140	"	L.C.F.B.
Mackay off P. Tank (off Tank for Broad)	1	4.9	1	7/044	35	42	200	"	L.C.
Workshop Tank	1	3	1	7/044	21	42	20	"	L.C.F.B.
Rock Tank for Tank	1	2	1	7/036	16	28	160	"	L.C.
" " " " " " " " " "	1	2	1	7/036	16	28	100	"	"
" " " " " " " " " "	1	2	1	7/036	16	28	300	"	"
" " " " " " " " " "	1	2	1	7/036	16	28	200	"	"
Fire Space Tank Pw.	1	5	1	7/029	4	15	130	"	"



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

Electrical Engineer.

Date 11-3-46

#### COMPASSES.

Minimum distance between electric generators or motors and standard compass

15'

Minimum distance between electric generators or motors and steering compass

13'

The nearest cables to the compasses are as follows:—

A cable carrying 15 Ampères on the feet from standard compass 7 feet from steering compass.

A cable carrying 15 Ampères 7 feet from standard compass on the 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.

James M. Robertson

Builder's Signature.

Date 11-3-46

Secretary.

Is this installation a duplicate of a previous case yes

If so, state name of vessel S.S. "Hare Imperator"

Plans. Are approved plans forwarded herewith no

If not, state date of approval 28-7-44

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 specifications and amendments thereto. The materials used are of good quality and design, and the workmanship is good. On completion the equipment was operated on load with satisfactory results and the insulation resistance of each circuit was measured and found good. This equipment conforms to this Society's "Rules for Electrical Equipment" and is in my opinion eligible for a vessel bearing the Society's class "for Government Service".

Noted

L.F.

24/3/46

Total Capacity of Generators (2x30) 60 Kilowatts.

The amount of Fee ... £ 28. 10. 0  
Specification 7. 2. 6  
When applied for, 13/3/1946  
Travelling Expenses (if any) £ : :  
When received, 19.....

L.S. Brown

Surveyor to Lloyd's Register of Shipping.

FRI. 5 APR 1946

Committee's Minute

Assigned See F.E. machy rpl.