

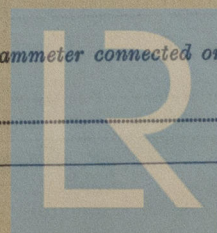
REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report... 4th Nov 1939... When handed in at Local Office... 16. 11. 39... Port of... BELFAST
 No. in Survey held at... BELFAST... Date, First Survey... 20 April 1939... Last Survey... 5th Nov 1939
 Reg. Book. (Number of Visits... 18...)
20298 on the... STEEL TWIN SCREW MOTOR VESSEL "AUCKLAND STAR."... Tons { Gross..... Net.....
 Built at... BELFAST... By whom built... MESSRS HARLAND & WOLFF... Yard No. 1017... When built... 1939
 Owners... BLUE STAR LINE LTD... Port belonging to... BELFAST
 Electrical Installation fitted by... MESSRS HARLAND & WOLFF... Contract No. 1016... When fitted... 1939
 Is vessel fitted for carrying Petroleum in bulk... NO... Is vessel equipped with D.F. YES E.S.D. YES Gy.C. YES Sub.Sig. —

Have plans been submitted and approved... YES... System of Distribution... TWO WIRE DIRECT CURRENT... Voltage of supply for Lighting... 220
 Heating... 220... 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... YES... 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... YES... 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 MOTOR ROOM, TANK TOP LEVEL ONE PORT & TWO STAR
 ... 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 PLATFORM AFT. END OF MOTOR 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... SINDANYO... 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... T.P. REVERSE CURRENT
CIRCUIT BREAKERS TIME LIMITS & OVERLOADS ON TWO POLES FOR GENERATORS
 and for each outgoing circuit... D.P. OVERLOAD CIRCUIT BREAKERS OR D.P. SWITCHES & FUSES
 Are compartments containing switchboards composed of fire-resisting material or lined as per Rule... YES... Instruments on main switchboard... 14
 ammeters... 3... 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... INDICATING LAMPS



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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	330	2	127/093	1500	1612 ✓	170	VARNISHED CAMBRIC	LEAD & BRAIDING
" " EQUALISER		1	127/093	-	815 ✓	85	Do	Do
EMERGENCY GENERATOR								
ROTARY TRANSFORMER: MOTOR								
" " GENERATOR								

MAIN DISTRIBUTION CABLES.

AUX. SWITCHBOARDS AND SECTION BOARDS								
MASTERBOARD "E" REFRIG.		2	127/093	1580	1620 ✓	265	Do	Do
Do "A" HEATING		1	37/064	169	210 ✓	540	Do	Do
Do "B" DO		1	37/083	277	296 ✓	370	Do	Do
Do "B" WINCHES		1	37/072	211	246 ✓	360	Do	Do
Do "C" DO		1	61/103	451	540 ✓	700	Do	Do
Do "D" DO		1	91/093	594	628 ✓	320	Do	Do
MASTERBOARD "A" LIGHTING		1	19/052	58	104 ✓	550	Do	Do
Do "COOKING		1	19/044	77	87 ✓	240	Do	Do
Do "B" LIGHTING		1	19/052	76	104 ✓	360	Do	Do
Do "COOKING		1	37/103	317	385 ✓	300	Do	Do
Do "A" HEATING								

LIGHTING AND HEATING, ETC., CABLES.

WIRELESS		1	7/044	-	42 ✓	640	Do	Do
NAVIGATION LIGHTS								
LIGHTING AND HEATING								
MOTOR ROOM S & F BOX LIGHTING		1	7/044	30	42 ✓	42	Do	Do
Do Do Do		1	7/044	30	42 ✓	40	Do	Do
Do Do Do		1	7/044	28	42 ✓	50	Do	Do
SEARCHLIGHT		1	37/083	-	296 ✓	485	Do	Do
SIDE LIGHTS		1	3/036	0.18	12 ✓	100	RUBBER	LEAD & BRAIDING
STERN LIGHTS		1	3/036	0.18	12 ✓	900	Do	HARD RUBBER & BRAIDING
CARGO LIGHTS	FOR ^D AFT.	1	7/064	20	75 ✓	825	V.C	LEAD & BRAIDING
OTHER LIGHTING CIRCUITS		1	3/029	5 (MAX)	7.8 ✓	VARIOUS	RUBBER	H.R. BRAIDING
500/1500 WATT HEATERS		1	3/029	2.3/6.9	7.8 ✓	LENGTHS	"	"
2000		1	7/029	9.1	18.2 ✓	"	"	"

* LOOPEO WITH WINDLASS.

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
BALLAST PUMP	1	24	1	19/052	95	104 ✓	300	VARNISHED CAMBRIC LEAD & BRAIDING
MAIN BILGE LINE PUMPS	1	12.5	1	7/052	50	57 ✓	320	Do Do
GENERAL SERVICE PUMP	1	24	1	19/052	95	104 ✓	280	Do Do
AUX. F.W. CIRC. PUMP	1	5	1	7/036	20	28 ✓	300	Do Do
SANITARY PUMP	1	24	1	19/052	95	104 ✓	240	Do Do
CIRC. S.W. PUMP	3	32	1	19/064	123	135 ✓	336	Do Do
CIRC. F.W. PUMP	2	24	1	19/052	95	104 ✓	300	Do Do
F.W. PUMP	1	6	1	7/036	24	28 ✓	340	Do Do
ENGINE TURNING GEAR	2	15	1	7/064	58.5	75 ✓	95	Do Do
AUX. S.W. CIRC. PUMP	1	8.5	1	7/044	34	42 ✓	280	Do Do
LUBRICATING OIL PUMPS	3	90	1	37/103	355	385 ✓	170	Do Do
OIL FUEL TRANSFER PUMP	1	14	1	7/064	56	75 ✓	115	Do Do
WINDLASS	1	75	1	37/083	300	296 ✓	475	Do Do
AIR COMPRESSOR	2	95	1	37/103	360	385 ✓	270	Do Do
STEERING GEAR	2	57	1	37/072	270	303 ✓	450	Do Do
VENTILATING FANS MOTOR RM	5	1 3/4	1	3/036	7.5	12 ✓	330	RUBBER LEAD & BRAIDING
Do Do REFRIG. M/C RM	2	5	1	3/029	2.2	7.8 ✓	250	Do HARD RUBBER & BRAIDING
REFRIG. COOLER FAN	3	17.5	1	19/064	68	83 ✓	250	Do Do
Do	5	9.5	1	7/064	39	46 ✓	300	Do Do
Do	1	6.25	1	7/044	26	31 ✓	120	Do Do
Do	6	5.25	1	7/036	22	24 ✓	120	Do Do
Do	4	3.25	1	7/029	14	18.2 ✓	150	Do Do
Do	4	3	1	7/029	12.1	18.2 ✓	150	Do Do

* 1/2 HOUR RATING.

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.



Electrical Engineers. Date.....

COMPASSES.

Minimum distance between electric generators or motors and standard compass..... 150 FT. 30 FT. NEAREST MOTOR.....

Minimum distance between electric generators or motors and steering compass..... 145 FT. 32 FT. DO.....

The nearest cables to the compasses are as follows:—

A cable carrying 0.09 Ampères 12 feet from standard compass ON feet from steering compass.

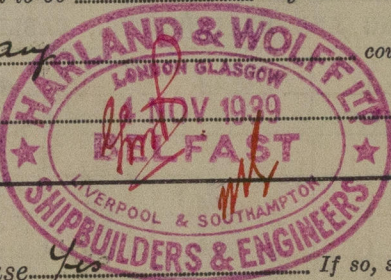
A cable carrying 0.18 Ampères 6 feet from standard compass 8 feet from steering compass.

A cable carrying 4.8 Ampères 6 feet from standard compass 6 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 1/2 degrees on any course in the case of the standard compass, and 1/2 degrees on any course in the case of the steering compass.



Builder's Signature. Date.....

Is this installation a duplicate of a previous case? If so, state name of vessel Wellington Star

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, and in accordance with the approved plans, tested under full working conditions and found satisfactory. The materials and workmanship are good.

Noted

21/11/39

Total Capacity of Generators..... 990 Kilowatts.

The amount of Fee ... £ 69 : 15 : 0 When applied for, 16.11.39

Travelling Expenses (if any) £ : : When received, 10/11/39
1/5 due Birmingham £13.19.0
2/5 due Belfast £27.18.0
2/5 due Liverpool £27.18.0

H. Haffner C. S. Thomas
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See Bel 76 12491

2nd 10.38.—Transfer. (MADE IN ENGLAND.) (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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