

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

E 1 OCT 1948

Date of writing Report 13-Sept-1948 When handed in at Local Office 39/9/1948 Port of Belfast
 No. in Survey held at Belfast Date, First Survey 4 Aug 1948 Last Survey 16-Sept 1948
 Reg. Book. 90370 on the M. V. "Jalka" Sup. 1 Tons { Gross 8250
 Net 4800
 Built at Belfast By whom built Havland & Wolff Yard No. 1373 When built 1947-8
 Owners Bulls Tankrederi Port belonging to Sandefjord
 Electric Light Installation fitted by Havland & Wolff Contract No. 1373 When fitted 1948
 Is the Vessel fitted for carrying Petroleum in bulk Yes

System of Distribution Two Wire
 Pressure of supply for Lighting 110 volts, Heating 110 volts, Power 110 volts.
 Direct or Alternating Current, Lighting Direct Current Power Direct Current
 If alternating current system, state frequency of periods per second —

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes
 Generators, do they comply with the requirements regarding temperature rise Yes, are they compound wound Yes
 are they over compounded 5 per cent. Yes, if not compound wound state distance between each generator —

Where more than one generator is fitted are they arranged to run in parallel No, is an adjustable regulating resistance fitted in series with each shunt field Yes
 Have certificates of test results for machines under 100 kw. been submitted and approved Yes
 Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing —
 Have certificates for generators under 100 kw. been supplied and approved Yes, SEE REMARKS.

Are all terminals accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes
 Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators Engine Room Tank Top STAR FORWARD, is the ventilation in way of the generators satisfactory Yes
 are they clear of all inflammable material Yes if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators — and —
 are the generators protected from mechanical injury and damage from water, steam or oil Yes, are their axes of rotation fore and aft YES

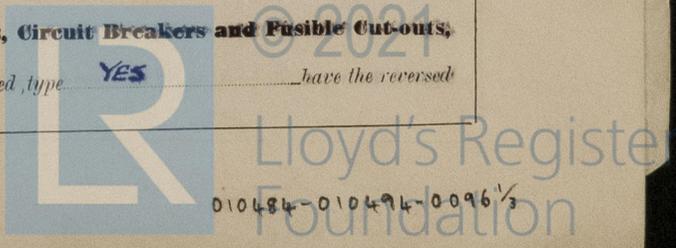
Earthing, are the bedplates and frames of the generating plant efficiently earthed YES, are the prime movers and their respective generators in metallic contact YES
 Main Switch Boards, where placed PLATFORM E.R. TANK TOP STAR.
 If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard —

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes YES, are they protected from mechanical injury and damage from water, steam or oil YES
 if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards — and —, are they constructed wholly of durable, non-ignitable non-absorbent materials YES
 is all insulation of high dielectric strength and of permanently high insulation resistance YES

is it of an approved type YES, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or mica-nite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework —, is the non-hygroscopic insulating material of an approved type —, and is the frame effectively earthed YES
 Are the fittings as per Rule regarding:— spacing or shielding of live parts YES
 accessibility of all parts YES, absence of fuses on back of board YES, temperature rise of omnibus bars YES
 individual fuses to voltmeter, pilot or earth lamp YES, are moving parts of switches alive in the "off" position NO
 are all screws and nuts securing connections effectively locked YES, are any fuses fitted on the live side of switches NO

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches 400 AMP. D.P. CIRCUIT BREAKER WITH O/L & T/L TRIPS: D.P.C.O. SWS. & FUSES: NO EQUALIZER
 Are turbine driven generators fitted with emergency trip switch as per rule — Are cupboards or compartments containing switchboards composed of fire-resisting material or lined with approved material YES
 Instruments on main switchboard 2 ammeters 2
 voltmeters — synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection —

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system 2 LAMP SYSTEM WITH D.P.C.O. SWITCH & FUSES (SW. POSITION FOR EACH SET OF BUSBARS)
 Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules YES
 are the fusible cutouts of an approved type YES have the reversed —



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.	Flash Point of Fuel.
MAIN	2	40	110	364	640	1-Diesel & 1-Steam	Oil	Above 150°F.
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER								

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR	1	0.6	91	0.093	364	384	120	RUBBER	L.S.A.B.
EQUALISER CONNECTIONS									
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER } MOTOR GENERATOR									
ENGINE ROOM (S.F. Box 18)	1	0.01	Ref. 469/2	0.113	23 ✓	42	150	MINERAL	COPPER SHEATH
BOILER ROOM (S.F. Box 19)	1	0.007	437/2	0.093	14 ✓	28	150	"	"
AUXILIARY SWITCHBOARDS									
MASTERBOARD	1	0.4	61	0.093	263 ✓	288	600	RUBBER	L.S.A.B.
SECT. BOX No 1.	1	0.04	Ref. 422/1	0.226	85 ✓	104	240	MINERAL	COPPER SHEATH
" " 2	1	0.06	Ref. 484/1	0.276	102 ✓	135	210	"	"
" " 3	1	0.04	Ref. 432/1	0.226	60 ✓	104	120	"	"
GYRO CONTROL PANEL	1	0.007	7	0.036	13 ✓	24	90	RUBBER	L.S.A.B.
ACCOMMODATION									
WIRELESS	1	0.1	19	0.083	30 ✓	118	750	RUBBER	L.S.A.B.
SEARCHLIGHT	1	0.06	19	0.64	35 ✓	83	540	"	"
MASTHEAD LIGHT	1	0.002	3	0.29	0.2 ✓	5	450	"	"
SIDE LIGHTS	1	"	3	0.29	0.2 ✓	5	75	"	L.C.B.
COMPASS LIGHTS	1	"	3	0.29	0.2 ✓	5	20	"	"
POOP LIGHTS	1	"	3	0.29	0.2 ✓	5	800	"	L.S.A.B. & L.C.B.
CARGO LIGHTS	1	0.007	7	0.36	6.0 ✓	24	300	"	"
HEATERS									

MOTOR CONDUCTORS.

DESCRIPTION.	No. of Motors.	CONDUCTORS.		COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT AMPERES.		Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
		No. Per Pole.	Total Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP										
MAIN BILGE LINE PUMPS										
GENERAL SERVICE PUMP										
EMERGENCY BILGE PUMP										
SANITARY PUMP										
CIRC. SEA WATER PUMPS										
CIRC. FRESH WATER PUMPS										
AIR COMPRESSOR	1	1	0.01	Ref. 290/1	0.113	26 ✓	42	150	MINERAL	COPPER SHEATH
FRESH WATER PUMPS (Aft)	1	1	0.0045	7	0.029	10 ✓	15	40	RUBBER	L.C.B.
FRESH WATER PUMPS (Fwd)	1	1	0.007	7	0.036	15 ✓	24	60	"	L.S.A.B.
ENGINE TURNING GEAR	1	1	0.04	Ref. 472/1	0.226	80 ✓	104	150	MINERAL	COPPER SH.
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
STEERING GEAR—										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTORS										
VENTILATING FANS										
Vent. Fan No. 1.	1	1	0.01	7	0.044	27 ✓	31	50	RUBBER	L.S.A.B.
2.	1	1	0.01	Ref. 290/1	0.113	27 ✓	42	80	MINERAL	COPPER SHEATH
3.	1	1	0.01	Ref. 290/1	0.113	27 ✓	42	80	"	"
Galley Ex. Fan	1	1	0.003	3	0.036	6 ✓	10	40	RUBBER	L.C.B.
Pantry Ex. Fan	1	1	0.002	3	0.029	2 ✓	5	100	"	"
Hospital Fan	1	1	"	3	0.029	1 ✓	5	100	"	"
Laundry Fan	1	1	"	3	0.029	1 ✓	5	60	"	"

The Electrical Equipment is installed in accordance with the approved plans.
 All Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
 The foregoing is a correct description.



Electrical Engineers. Date *Sept 22nd '48*

COMPASSES.

Minimum distance between electric generators or motors and standard compass *35 FEET*
 Minimum distance between electric generators or motors and steering compass *30 FEET.*
 The nearest cables to the compasses are as follows:—
 A cable carrying *0.2* Ampères *ON* feet from standard compass *10* feet from steering compass.
 A cable carrying *0.2* Ampères *10* feet from standard compass *ON* feet from steering compass.
 A cable carrying *40* Ampères *28* feet from standard compass *8* 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.



Builder's Signature. Date *23. 9. 48.*

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

General Remarks (State quality of workmanship, opinions as to class, &c. *A test certificate for the oil engine driven generator, has not been supplied. The Builders state they will forward this certificate as soon as it is received.*
The electrical equipment of this vessel has been fitted on board under special survey, tested under full working conditions and, except as stated above, found satisfactory. materials and workmanship are good.

Noted see 18/10/48

Total Capacity of Generators *80* Kilowatts.

The amount of Fee ... £ *52* : - : *29/9/1948*
 Travelling Expenses (if any) £ : : *19*

R.I. Husehion
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute *29 OCT 1948*
 Assigned *See minute in fe mach rpl.*

20.12.36.—Transfer. The Surveyors are requested not to write on or below the space for Committee's Minute.

