

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 20.2.30 When handed in at Local Office 28.4.30 Port of GLASGOW. Received at London Office 30 APR 1930

No. in Survey held at GLASGOW Date, First Survey 21.1.30 Last Survey 4.3.1930  
Reg. Book. (Number of Visits 6)

42518 on the S.S. TALUNE. Tons { Gross 2166 Net

Built at GLASGOW. By whom built THE BLYTHSWOOD SHIPYARD No. 27. When built 1930

Owners THE UNION S.S. CO OF NEW ZEALAND. Port belonging to HOBART.

Electric Light Installation fitted by Group Curtis & Co Ltd Contract No. When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk NO

System of Distribution Two wire - Insulated

Pressure of supply for Lighting 110 volts, Heating # volts, Power 110 volts.

Direct or Alternating Current, Lighting Direct Power Direct

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 rating 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 Yes, is an adjustable regulating resistance fitted in series with each shunt field

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

Position of Generators Engine Room Platform Starboard side. Are the lubricating arrangements of the generators as per Rule Yes.

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 Aft of Generator.

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

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

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework

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, proportion of omnibus bars Yes

individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches Yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

D.P. switch + 2 C.P. fuses

Instruments on main switchboard One ammeter { One voltmeter synchronising device for paralleling purposes. - 2 for Battery charging + one for belt charging. Also 2 D.P. contactors for battery charging

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Lamp between each pole and ship's frame.

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule Yes.



Cables: Single, twin, concentric, or multicore Single + Twin are the cables insulated and protected as per Tables IV or V of the Rules Yes

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 3 Volts

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Yes

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound Yes

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage Yes

Support and Protection of Cables, state how the cables are supported and protected Lead covered + braided fixed on woodwork with brass saddles. Armoured cables clipped to structure or steel tray.

If cables are run in wood casings, are the casings and caps secured by screws Yes, are the cap screws of brass Yes, are the cables run in separate grooves Yes. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII Yes

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements Yes

Joints in Cables, state if any, and how made, insulated, and protected Nil

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed Yes state the material of which the bushes are made Lead or fibre

Earthing Connections, state what earthing connections are fitted and their respective sectional areas Yes

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule Yes

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven Emergency supply from accumulators in Engine room.

Navigation Lamps, are these separately wired Yes, controlled by separate switch and separate fuses Yes, are the fuses double pole Yes

are the switches and fuses grouped in a position accessible only to the officers on watch Yes

has each navigation lamp an automatic indicator as per Rule Yes

Secondary Batteries, are they constructed and fitted as per Rule Yes

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight Yes

are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected Cast-iron guards

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected Gas-tight guarded fittings

in iron pipe. Gas-tight guarded fittings, how are the cables led Under distribution boards in Deck Houses.

Searchlight Lamps, No. of —, whether fixed or portable —, are their fittings as per Rule —

Arc Lamps, other than searchlight lamps, No. of —, are their live parts insulated from the frame or case —, are their fittings as per Rule —

Motors, are their working parts readily accessible Yes, are the coils self-contained and readily removable for replacement Yes

are the brushes, brush holders, terminals and lubricating arrangements as per Rule Yes, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material Yes

are they protected from mechanical injury and damage from water, steam or oil Yes are their axes of rotation fore and aft Yes

if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type Yes, if not of this type, state distance of the combustible material horizontally or vertically above the motors — and —

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule Yes

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule —

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings Yes

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office —

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	One	12 1/2	110	113	300	Encl. Recip. Engine	—	
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 Effective Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
MAIN GENERATOR	One	.120	37	.064	110	120	36	VIR	L.C.A+B.
EQUALISER CONNECTIONS						130			
AUXILIARY GENERATOR									
EMERGENCY GENERATOR									
ROTARY TRANSFORMER MOTOR GENERATOR									
ENGINE ROOM	One	.0225	7	.064	12	46	40	VIR	L.C.A+B
BOILER ROOM									
AUXILIARY SWITCHBOARDS									
Accumulators	Two	.0225	7	.064	36	94	40	VIR	L.C.A+B
Shore Connections	One	.06	19	.064	60	83	80	VIR	L.C.A+B.
ACCOMMODATION Port. G.S. Bd	One	.0225	7	.064	18	46	120	VIR	L.C.A+B
" Sec. Bd to G.S. Bd	Two	.01	7	.044	18	62	100	VIR	L.C.A+B.
" Std. to Sec Bd	One	.0225	7	.064	22	46	60	VIR	L.C.A+B
" S.B. to D.Bs	Three	.01	7	.044	22	46	250	VIR	L.C.A+B
BRIDGE + NAVIGATION	One	.01	7	.044	7	46	260	VIR	L.C.A+B
WIRELESS	One	.01	7	.064	5	46	220	VIR	L.C.A+B
SEARCHLIGHT									
MASTHEAD LIGHT	Two	.002	3	.029	1.2	15.2	500	VIR	L.C.A+B
SIDE LIGHTS	Two	.002	3	.029	1.2	15.2	80	VIR	L.C.A+B.
COMPASS LIGHTS	Two	.002	3	.029	.4	15.2	40	VIR	L.C.A+B
POOP LIGHTS	One	.002	3	.036	.6	12	400	VIR	L.C.A+B
CARGO LIGHTS	One	.04	19	.052	35	64	60	VIR	L.C.A+B
ARC LAMPS									
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 Effective 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										
FRESH WATER PUMP										
ENGINE TURNING GEAR										
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS										
OIL FUEL TRANSFER PUMP										
WINDLASS										
WINCHES, FORWARD										
WINCHES, AFT										
Refrigerator Motor	One	One	.04	19	.052	42	64	50	VIR	L.C.A+B
STEERING GEAR										
(a) MOTOR GENERATOR										
(b) MAIN MOTOR										
WORKSHOP MOTOR	One	One	.0225	7	.064	14	46	60	VIR	L.C.A+B
VENTILATING FANS										

All Conductors are of annealed copper conforming to British Standard Specification No. 7.  
 The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.  
 The foregoing is a correct description.

For Group Curtis & Co. Ltd., Electrical Engineers. Date April 24, 1930  
 p.p. J. Ryan

COMPASSES.

Distance between electric generators or motors and standard compass 75 feet  
 Distance between electric generators or motors and steering compass 75 feet  
 The nearest cables to the compasses are as follows:—  
 A cable carrying 7 Ampères 10 feet from standard compass 12 feet from steering compass.  
 A cable carrying .4 Ampères 8 feet from standard compass 10 feet from steering compass.  
 A cable carrying .6 Ampères 8 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 y/n  
 Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted y/n  
 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.

GLYTHSWOOD SHIPBUILDING CO., LTD.  
 John W Stewart Secretary Builder's Signature. Date 24/4/30

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.) This installation has been fitted on board under special survey. Tested under full working conditions and found satisfactory. The materials and workmanship were found to be good and sound.

28/4/30

It is submitted that this vessel is eligible for THE RECORD. Elec. Light J. Rankin 24/5/30

Total Capacity of Generators 12½ Kilowatts.

The amount of Fee ... £ 12.10.0 : When applied for, Mar 1 1930  
 Travelling Expenses (if any) £ : : When received, Mar 4 1930.

J. Rankin Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 29 APR 1930 J. Rankin

Assigned Elec. Light

Im. 1228. - Transfer. (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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