

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

19 SEP 1928

Date of writing Report 19 When handed in at Local Office 18 SEP 1928 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Newcastle. Date, First Survey April 4th Last Survey August 4th 1928.
Reg. Book. 66255 on the M. Y. "British Pluck" (Number of Visits... 9.)

Built at Newcastle. By whom built Swan Hunter & W. R. Holt Yard No. 1254 When built 1928
Tons { Gross 1100
Net 540

Owners British Tanker Co. Ltd. Port belonging to Swansea.

Electric Light Installation fitted by J. H. Holmes & Co. Newcastle/Tyne. Contract No. 1254 When fitted 1928
" Power " " Swan Hunter & Wigham Richardson Co. Ltd.

System of Distribution Dankle wire
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 Yes

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 starboard side,
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 Engine room starboard side
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, 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 Yes

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.

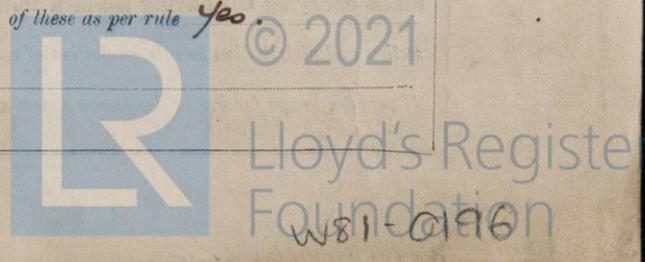
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches Triple pole C. Bo fitted with overload, reverse current & no volt coils. Double pole switch & fuses on each outgoing circuit

Instruments on main switchboard two ammeters two voltmeters _____ synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system Earth lamps coupled to earth through switches & fuses

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 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 4.0 volts lighting, 5.0 v on power

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

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, arm'd & braided cables in engine room & in galvanised iron pipe along deck fore shaft. lead cov'd & braided cable in cabins.

If cables are run in wood casings, are the casings and caps secured by screws —, are the cap screws of brass —, are the cables run in separate grooves —. 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 —

Joints in Cables, state if any, and how made, insulated, and protected none made.

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.

Earthing Connections, state what earthing connections are fitted and their respective sectional areas
—, are their connections made as per Rule —

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 none fitted

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 —

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 yes.

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected stout glass bowl protected by metal guard, only to be opened from outside how are the cables led in galvanised steel pipe

where are the controlling switches situated in bridge acc't passage.

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 —, 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 yes

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 yes.

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No of	RATED AT			DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.		Fuel Used.	Flash Point of Fuel.
MAIN	1	30	110	272	300	Diesel Engine	
AUXILIARY	1	21	110	190	450	Steam engine	
EMERGENCY							
ROTARY TRANSFORMER							

LIGHTING AND HEATING CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	2	.4064	61	.093	272	90	Y. I. R.	Lead cov'd & arm'd
	EQUALISER CONNECTIONS	1	.2465	37	.093	190	60	50	50
	AUXILIARY GENERATOR	2	.2465	37	.093	190	72	50	50
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM								
	BOILER ROOM	2	.01046	7	.044	8	30	Y. I. R.	Arm'd lead cov'd & braided
	ACCOMMODATION mid shaft	2	.01046	7	.044	10	40	50	50
	Navigation	2	.01046	7	.044	8	120	50	50
	Forward	2	.00455	7	.029	4	220	50	50
	WIRELESS	2	.01046	7	.044	8	90	50	50
	SEARCHLIGHT								
	MASTHEAD LIGHT	2	.00194	3	.029	.6	175	50	Lead cov'd & braided
	SIDE LIGHTS	2	.00194	3	.029	.6	30	50	50
	COMPASS LIGHTS	2	.00194	3	.029	.25	15	50	50
	DECK LIGHTS	2	.00194	3	.029	.6	260	50	50
	CARGO LIGHTS	2	.00299	3	.036	2.0	60	50	Lead cov'd, arm'd & braided.
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.

Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	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	.3024	37	.103	226	120	Y. I. R.	Lead cov'd & arm'd
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS	2	.1478	37	.072	120	150	50	50
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR								
	VENTILATING FANS								
	Turning Motor	1	.02214	7	.064	42	200	50	50
	Oil Purifiers	2	.01046	7	.044	9	140	50	50
	O. B. Blower	1	.01046	7	.044	18	120	50	50
	O. F. Heater	1	.00299	3	.036	9	30	50	50

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

SWAN, HUNTER & WIGHAM RICHARDSON, LTD.

FOR J. H. HOLMES & CO

M. Robinson

Electrical Engineers.

Date *11. 9. 28*

Elamorgan for power

for lighting

COMPASSES.

Distance between electric generators or motors and standard compass *60 feet.*
 Distance between electric generators or motors and steering compass *55 feet.*
 The nearest cables to the compasses are as follows:—
 A cable carrying *.25* Ampères *on the* feet from standard compass *7* feet from steering compass.
 A cable carrying *.25* 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 *each* course in the case of the standard compass, and *nil* degrees on *each* course in the case of the steering compass.

FOR SWAN, HUNTER & WIGHAM RICHARDSON, LTD.

G. J. Twenty

Builder's Signature.

Date *17 Sept. 1928*

DIRECTOR

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. _____)

The above installation is in accordance with the Society's Rules. The vessel is eligible in my opinion for notation elec light wireless.

It is submitted that this vessel is eligible for THE RECORD.

elec. light.

J. H. M. 20/9/28.

Total Capacity of Generators *51.* Kilowatts.

The amount of Fee ... £ *27:12* : *15.8.* 19*28*
 Travelling Expenses (if any) £ : : *17.8.* 19*28*

W. T. Badger

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec light

Im. 2. 28.—Transfer.
 (The Surveys are requested not to write on or below the space for Committee's Minute.)



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