

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

14 SEP 1928

Received at London Office

Date of writing Report 13 Sept 1928 When handed in at Local Office 13 Sept 1928 Port of South

No. in Survey held at Burntisland Date, First Survey 5.7.28 Last Survey 7 Sept 1928  
 Reg. Book. (Number of Visits.....) 8

on the S.S. "USKMOUTH" Tons { Gross  
 Net

Built at Burntisland By whom built Burntisland S.B.Co Yard No. 148 When built 1928

Owners Wakelide Steamship Co. Ltd Port belonging to Newport

Electric Light Installation fitted by Burntisland S.B.Co. Contract No. 148 When fitted 1928

System of Distribution Two Wire volts, Heating — volts, Power — volts.

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

Direct or Alternating Current, Lighting Direct Power —

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 —, 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 Bunker Recess Stbd side Engine room, 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 7 feet, 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 Bolted direct to Earth are the prime movers and their respective generators in metallic contact Yes

Main Switch Boards, where placed Bunker Recess Stbd side Engine room

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 insulating resistance Yes

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

and is the frame effectively earthed Bolted direct to earth 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 One D. Pole 100 amp.

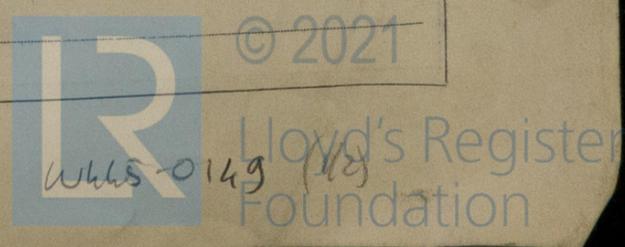
Main Switch and D. Pole Fuses and S. Pole 80 amp switches and D. Pole Fuses

Instruments on main switchboard one ammeters one 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 Two earth indicating lamps

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 Galvanized Clips with 1/8 screws  
in Cargo and Machinery Spaces + Brass Saddles in A/cd. Where necessary cable h.c. + Wire Arm.

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 Yes

**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 Dynamo Bedplate and Main Switchboard Frame Bolted direct to Earth  
 are their connections made as per Rule 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 Yes

**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 where 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 No  
 how are the cables led Yes  
 where are the controlling switches situated Yes

**Searchlight Lamps, No. of** 1, whether fixed or portable Yes, are their fittings as per Rule Yes

**Are Lamps,** other than searchlight lamps, No. of 1, are their live parts insulated from the frame or case Yes, are their fittings as per Rule Yes

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

**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.	Ampères.		Revs. per Min.	Fuel Used.
MAIN ...	1	7	110	63	600	Steam Engine	
AUXILIARY ...							
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	.04	19	.052	43	15	Rubber	L.C. + Wire Arm <sup>2</sup>
	EQUALISEE CONNECTIONS ...								
	AUXILIARY GENERATOR ...								
	EMERGENCY GENERATOR ...								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS ...								
	ENGINE ROOM ...	2	.0045	7	.029	10	10	Rubber	L.C. + Wire Arm <sup>2</sup>
	BOILER ROOM ...								
	ACCOMMODATION Crew... ..	2	.0045	7	.029	4	260	Rubber	Wire Armoured
	" Officers ... ..	2	.0045	7	.029	7	210	Rubber	Wire Armoured
	" Engineers ... ..	2	.0045	7	.029	5	90	Rubber	Wire Armoured
	Navigation ... ..	2	.0045	7	.029	4	270	Rubber	Wire Armoured
	WIRELESS ... ..	2	.007	7	.036	10	240	Rubber	Wire Armoured
	SEARCHLIGHT ... ..								
	MASTHEAD LIGHT... ..	2	.002	3	.029	5	390	Rubber	Wire Armoured
	SIDE LIGHTS ... ..	2	.002	3	.029	5	80	Rubber	Lead Covered
	COMPASS LIGHTS ... ..	2	.002	3	.029	5	30	Rubber	Lead Covered
	POOP LIGHTS ... ..								
	CARGO LIGHTS ... ..								
	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 ... ..								
	FRESH WATER PUMP ... ..								
	ENGINE TURNING GEAR ...								
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...								
	OIL FUEL TRANSFER PUMP ...								
	WINDLASS ... ..								
	WINCHES, FORWARD ... ..								
	WINCHES, AFT ... ..								
	STEERING GEAR ... ..								
	(a) MOTOR GENERATOR ...								
	(b) MAIN MOTOR ... ..								
	WORKSHOP MOTOR ... ..								
	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.

*Wepdape*

Electrical Engineers.

Date *Sept. 12<sup>th</sup> 1928*

COMPASSES.

Distance between electric generators or motors and standard compass *84 feet*  
 Distance between electric generators or motors and steering compass *80 feet*  
 The nearest cables to the compasses are as follows:—  
 A cable carrying *.5* Ampères *7"* ~~from~~ from standard compass *7"* ~~from~~ from steering compass.  
 A cable carrying \_\_\_\_\_ Ampères \_\_\_\_\_ feet from standard compass \_\_\_\_\_ 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 \_\_\_\_\_ *any* course in the case of the standard compass, and *Nil* degrees on \_\_\_\_\_ *any* course in the case of the steering compass.

*Wepdape*

Builder's Signature.

Date *Sept. 12<sup>th</sup> 1928*

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 in the vessel in accordance with the Rules. The materials & workmanship are good. The installation has been tried under working conditions & found satisfactory. It is recommended that a notation of 'Electric Light' be inserted in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. *Electric Light*

*D.A.*  
*17/9/28*  
*J.*

Total Capacity of Generators *my* Kilowatts.

The amount of Fee ... £ *my* : 0 :  
 Travelling Expenses (if any) £ *✓* :  
 When applied for, *13-9-28*  
 When received, *2-11-28*

*Clive Bell*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 18 SEP 1928

Assigned *Electric Light*

1m.1.26.—Transfer. (The Surveys are requested not to be on or below the space for Committee's Minute.)



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