

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 20 MAR 1930
Received at London Office

Date of writing Report 19th March, 1930 When handed in at Local Office 19th March, 1930. Port of Swansea.

No. in Survey held at Swansea. Date, First Survey 27th February Last Survey 13th March, 1930.
Reg. Book. (Number of Visits...)

08525 on the S.T. Lincolade. Tons Gross 290 Net 127
When built Feb. 1919

Built at Beverly By whom built Cook, Helton & Gennell Yard No. When built Feb. 1919

Owners Rhondda Fishing Co. Port belonging to Swansea

Electric Light Installation fitted by The Numbel Electrical Engineering Co. Contract No. When fitted March 1930

System of Distribution Two Wire

Pressure of supply for Lighting 100 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 overload 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 Yes!

Are all terminals accessible and clearly marked Yes!, are they so spaced or shielded that they cannot be accidentally earthed,

or short circuited Yes! Are the lubricating arrangements of the generators as per Rule Yes!

Position of Generators Starboard side Engine Room.

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 axis 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 direct coupled.

Main Switch Boards, where placed aft of generator in 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 Yes! and

are they constructed wholly of durable, incombustible 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 connected to one pole

insulated from the slab with mica or micanite and the slab similarly insulated from its framework, and is the

frame effectively earthed Yes! Are the following fittings as per Rule, viz.:— 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. Ironclad Switch for Dynamo outgoing circuits controlled by SP

Knife Switch by D.P. Fuses

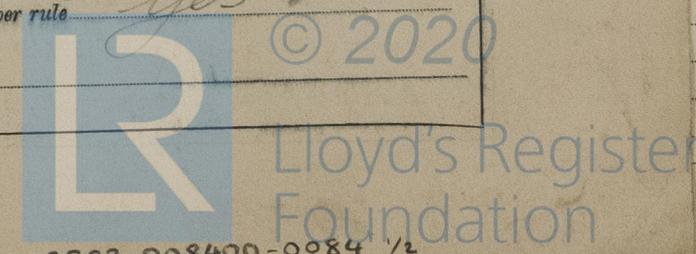
Instruments on main switchboard One ammeters One voltmeters synchronising device for paralleling purposes.

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

Earth Lamp Two Switches

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

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



Insulation of Cables, state type of cables, single or twin Both are the cables insulated and protected as per Tables III or IV of the Rules Yes
Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 1 Volt
Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 None
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, uplates 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 Armoured cables with galv clip
Lead covered with brass clips
 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 VI Yes
Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements None
Joints in Cables, state if any, and how made, insulated, and protected None
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 Positions, 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 Through earth lamp
 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 None
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 are separate screens provided for the use of oil and electric side lights No
 are separate oil lanterns provided for the mast head lights and side lights 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 None
 are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected None
 how are the cables led None
 where are the controlling switches situated None
Searchlight Lamps, No. of 2, whether fixed or portable None, are their fittings as per Rule None
Arc Lamps, other than searchlight lamps, No. of None, are their live parts insulated from the frame or case None, are their fittings as per Rule None
Motors, are their working parts readily accessible None, are the coils self-contained and readily removable for replacement None
 are the brushes, brush holders, terminals and lubricating arrangements as per Rule None, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material None
 are they protected from mechanical injury and damage from water, steam or oil None are their axis of rotation fore and aft None
 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 None
 if not of this type, state distance of the combustible material horizontally or vertically above the motors None and None
Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed as per Rule None
Lighting Conductors, where lightning conductors are required, are these fitted as per Rule None
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. None
 If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office None

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	1	3.5	180	35	1150	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. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	.060	19	.064	35	24	V.I.R. & Braided	
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	2	.0018	3	.20	3.5	10	Lead & Remoued	
	BOILER ROOM	2	.0018	3	.20	3.5	40	"	"
	Accommodation	2	.012	7	18	15	150	Lead & Remoued	
	WIRELESS	2	.012	7	20	15	150	L & Remoued	
	SEARCHLIGHT								
	MASTHEAD LIGHT...	2	.0018	3	18	1	180	"	"
	SIDE LIGHTS...	2	.0014	1	18	1	15	Lead Covered & V.I.R.	
	COMPASS LIGHTS								
	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. Ampères.	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								
	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.

FOR THE HUNGER ELECTRICAL ENGINEERING CO.

W. P. Shute

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass

70 Feet

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying *2* Amperes *5* feet from standard compass feet from steering compass.

A cable carrying *2* Amperes *5* feet from standard compass feet from steering compass.

A cable carrying Amperes 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.

R. Martin *Adjusters*

Builder's Signature.

Date

Is this installation a duplicate of a previous case *Yes* If so, state name of vessel *S.K. "Harlech Castle"*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*The Materials and workmanship are good.
 This installation has been fitted on board in a satisfactory manner
 in accordance with the Rules: it has been tried under full working conditions
 found efficient
 The vessel is eligible in my opinion for notation of Electric Light in
 the Register Book.*

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

(S)
4/4/30

Total Capacity of Generators *3 1/2* Kilowatts

The amount of Fee ... £ *3 : 0* : *0* 19th / *Mar* / 30.

Travelling Expenses (if any) : £ : *2/5/30*

Hannish Westcott
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec. Lt.

Im. 522.—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)