

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 23304

Port of Sunderland Date of First Survey ✓ Date of Last Survey 23rd May 04 No. of Visits ✓
 No. in Reg. Book 64 Sup on the Iron or Steel "Principe di Piemonte" Port belonging to Genoa
 Built at Sunderland By whom Messrs. Sir James Laing & Co. When built 1904
 Owners Comte Savoie Soc Anon di Nav. Owners' Address Genoa
 Yard No. 623 Electric Light Installation fitted by Sunderland Forge Co. Ltd. When fitted 1904

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Two Multipolar Compound wound dynamos by The Sunderland Forge Engineering Co. Ltd. direct coupled to two inverted open type compound engines also by S.F.E. Co. Ltd.

Capacity of Dynamos each 300 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed Dynamo room on Middle Platform. Whether single or double wire system is used Double

Position of Main Switch Board Near dynamos having switches to groups ten of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each One in each hold - Main deck - two for fans do six for Emigrant light and fans in Upper tower deck, one in Wharehouse for side and Masthead lights, Telegraphs &c.

If cut outs are fitted on main switch board to the cables of main circuit Yes and on each auxiliary switch board to the cables of auxiliary circuits Yes and at each position where a cable is branched or reduced in size Yes and to each lamp circuit Yes

If vessel is wired on the double wire system are cut outs fitted to both flow and return wires or cables of all circuits including lamp circuits Yes

Are the cut outs of non-oxidizable metal Yes and constructed to fuse at an excess of 100 per cent over the normal current

Are all cut outs fitted in easily accessible positions Yes Are the fuses of standard dimensions Yes - except on Main switch board If wire fuses are used

are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit Yes on Main switch board

Are all switches and cut-outs constructed of incombustible materials and fitted on incombustible bases Yes

Total number of lights provided for 360 arranged in the following groups :-

A	45 of 25 & 12	lights each of 16	candle power requiring a total current of 45.45	Amperes
B	56 of 25 & 12	lights each of 16	candle power requiring a total current of 54.8	Amperes
C	30	lights each of 25	candle power requiring a total current of 25.5	Amperes
D	20	lights each of 25	candle power requiring a total current of 14.0	Amperes
E	36	lights each of 25	candle power requiring a total current of 30.6	Amperes

Two Mast head light with 1 lamps each of 32 CP. P.F. candle power requiring a total current of 2.4 Amperes

Two Side light with 1 lamps each of " " candle power requiring a total current of 2.4 Amperes

Five Cargo lights of 5 of 25 candle power, whether incandescent or arc lights Incandescent

If arc lights, what protection is provided against fire, sparks, &c. There are none

Where are the switches controlling the masthead and side lights placed In Wharehouse

DESCRIPTION OF CABLES.

Main cable carrying 300 Amperes, comprised of 34 wires, each 17 L.S.G. diameter, .314 square inches total sectional area

Branch cables carrying 54.8 Amperes, comprised of 19 wires, each 16 L.S.G. diameter, .0617 square inches total sectional area

Branch cables carrying 25.5 Amperes, comprised of 7 wires, each 15 L.S.G. diameter, .0785 square inches total sectional area

Leads to lamps carrying 1.4 Amperes, comprised of 1 wires, each 18 L.S.G. diameter, .00781 square inches total sectional area

Cargo light cables carrying 4.25 Amperes, comprised of 4 wires, each 2 1/2 L.S.G. diameter, .0050 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

Pure rubber, vulcanized rubber taped and braided in berths and passenger accommodation. In engine room, stokehold, &c. armoured over braiding and braided overall.

Joints in cables, how made, insulated, and protected There are none

Are all the joints of cables thoroughly soldered, resin only having been used as a flux — Are all joints in accessible positions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage No

Are there any joints in or branches from the cable leading from dynamo to main switch board No

How are the cables led through the ship, and how protected Main cables led through upper tower deck in strong wood casing

F 1-1-25: 16-15: 5-32;
 G 24-25
 H 63-25: 12-16
 I M. H. Woodford
 J S. H. Woodford



DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible Yes

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Iron pipes and special strong casings

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat Strong casings used

What special protection has been provided for the cables near boiler casings Armoured wires used

What special protection has been provided for the cables in engine room Armoured wires used

How are cables carried through beams Holes bashed with fibre through bulkheads, &c. Watertight glands used

How are cables carried through decks Strong iron deck tubes used

Are any cables run through coal bunkers Yes or cargo spaces Yes or spaces which may be used for carrying cargo, stores, or baggage Yes

If so, how are they protected Iron pipes in bunkers, knoanders strong wood casing

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage In two decks only - not in bunker

If so, how are the lamp fittings and cable terminals specially protected Special caps supplied to go over fittings when carrying cargo

Where are the main switches and cut outs for these lights fitted In special G. I. boxes in two decks

If in the spaces, how are they specially protected By heavy cast iron boxes

Are any switches or cut outs fitted in bunkers No

Cargo light cables, whether portable or permanently fixed Portable How fixed _____

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel _____

How are the returns from the lamps connected to the hull _____

Are all the joints with the hull in accessible positions _____

The installation is Yes supplied with 2 voltmeters and two amperemeters fixed on bow hatchboard

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and cut-outs fitted in positions not liable to the accumulation of petroleum vapour or gas _____

Are any switches, cut outs, or joints of cables fitted in the pump room or companion _____

How are the lamps specially protected in places liable to the accumulation of vapour or gas _____

The copper used is guaranteed to have a conductivity of 98 per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile after 24 hours' immersion in seawater.

The foregoing statements are a correct description of the Electric Light installation fitted by us on this vessel and we declare that it is at this date in good order and safe working condition.

THE SCHEFFELAND FORGE & ENGINEERING CO., LTD.

J. Wright Electrical Engineers Date 31 May 1907

COMPASSES.

Distance between dynamo or electric motors and standard compass Approx. 200 feet

Distance between dynamo or electric motors and steering compass " " 210 feet

The nearest cables to the compasses are as follows:—

A cable carrying	<u>.6</u>	Amperes	<u>10</u>	feet from standard compass	<u>runs into</u>	feet from steering compass
A cable carrying	<u>8.5</u>	Amperes	<u>12</u>	feet from standard compass	<u>is</u>	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

The maximum deviation due to electric currents, etc., was found to be 710 degrees on any course in the case of the standard compass and 710 degrees on any course in the case of the steering compass. A.W. Board

FOR SIR JAMES LAING & SONS LIMITED.

J. W. Board 5 - JUN 1907 Builder's Signature. Date

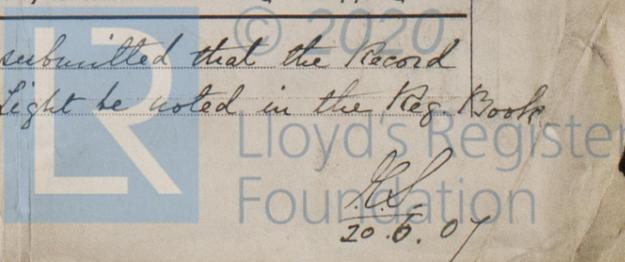
GENERAL REMARKS.

The above installation appears to have been fitted in accordance with the rules was found satisfactory under working conditions & is eligible in my opinion for classification with second

E. J. Stoddart
Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute _____ It is submitted that the Record Rec. Light be noted in the Reg. Book

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



REPORT FORM No. 13.-3m.34.