

SAT. NOV 10 1906

REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 51660

Port of Newcastle Date of First Survey Sep 13 Date of Last Survey Sep 27/06 No. of Visits 6
 No. in Reg. Book 15 Sup on the Iron or Steel SS "GOSLAR" Port belonging to Hamburg
 Built at Low Walker By whom Swan Hunter & Wigham, Rich. Ltd. When built 1906
 Owners Deutsch Austral Dampf Sch. Ges. Owners' Address Hamburg
 Yard No. 764 Electric Light Installation fitted by Messrs J.H. Holmes & Co. When fitted 1906

DESCRIPTION OF DYNAMO, ENGINE, ETC.

One $5" \times 8 \frac{3}{4}" \times 5"$ Foster Compound open automatic engine coupled to:-
 15/5 four pole dynamo - compound wound

Capacity of Dynamo 700 Amperes at 100 Volts, whether continuous or alternating current continuous

Where is Dynamo fixed starboard side Whether single or double wire system is used D. D. S.

Position of Main Switch Board starboard side having switches to groups A.B.C.D.E. of lights, &c., as below.

Positions of auxiliary switch boards and numbers of switches on each 1-3WAY 10AMP FUSE BD. FIXED IN PANTRY FEEDING MIDSHIPS

1-6WAY 10AMP FUSE SWITCH BD. FIXED IN PANTRY FEEDING FORWARD CLUSTERS: 1-AWAY -DO- -DO- FIXED IN STEERING GEAR

FEEDING AFT CLUSTER: 1-6WAY 5AMP DO- IN MESS ROOM FEEDING ENG. & OFFICERS: 1-AWAY -DO- ENG. FEEDING ENGINE ROOM

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 no

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 50 per cent over the normal current

Are all cut outs fitted in easily accessible positions yes Are the fuses of standard dimensions yes 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 Written Instructions

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

Total number of lights provided for 146 arranged in the following groups:-

A Midships	35	lights each of	16	candle power requiring a total current of	18.96	Amperes
B Cargo hold	48	lights each of	16	candle power requiring a total current of	22.96	Amperes
C "Aft	32	lights each of	16	candle power requiring a total current of	15.36	Amperes
D Eng. Officers	19	lights each of	16	candle power requiring a total current of	10.64	Amperes
E Engines	12	lights each of	16	candle power requiring a total current of	6.72	Amperes
2 Mast head light with 1 lamp each of	32	candle power requiring a total current of	1.92	Amperes		
2 Side lights with 1 lamp each of	32	candle power requiring a total current of	1.92	Amperes		
5 Cargo lights of	32	candle power, whether incandescent or arc lights	incandescent			

If are lights, what protection is provided against fire, sparks, &c. ✓

Where are the switches controlling the masthead and side lights placed in Chart House

DESCRIPTION OF CABLES.

Main cable carrying 75 Amperes, comprised of 19 wires, each 15 L.S.G. diameter, .0765 square inches total sectional area
 Branch cables carrying 21 Amperes, comprised of 7 wires, each 17 L.S.G. diameter, .017 square inches total sectional area
 Branch cables carrying 7 Amperes, comprised of 7 wires, each 20 L.S.G. diameter, .0072 square inches total sectional area
 Leads to lamps carrying .56 Amperes, comprised of 1 wire, each N^o 18 L.S.G. diameter, .0018 square inches total sectional area
 Cargo light cables carrying 7.2 Amperes, comprised of 128 wires, each 38 L.S.G. diameter, .0032 square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

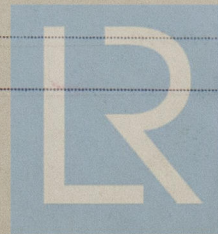
Cables are insulated with pure rubber taped further Beaded where run in iron pipes & in cabins areas
 Lead covered over lapping in machinery spaces & cables protected by galv^d iron wire sheathing
 Joints in cables, how made, insulated, and protected spliced soldered - insulated with appurposed rubber
& protective tape &c.

Are all the joints of cables thoroughly soldered, resin only having been used as a flux yes Are all joints in accessible positions, none being

no 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 In Iron Pipe



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DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture

Armoured cable

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

do do

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

do

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

do

How are cables carried through beams

Insulating Bushes

through bulkheads, &c.

Bulkhead glands

How are cables carried through decks

Deck tubes

Are any cables run through coal bunkers no or cargo spaces no or spaces which may be used for carrying cargo, stores, or baggage yes

If so, how are they protected

Armoured cable & iron pipes

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage

no

If so, how are the lamp fittings and cable terminals specially protected

do

Where are the main switches and cut outs for these lights fitted

If in the spaces, how are they specially protected

no

Are any switches or cut outs fitted in bunkers

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

supplied with a voltmeter and

also

an amperemeter, fixed

on Main Bd.

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.

COMPASSES.

Distance between dynamo or electric motors and standard compass

113 ft about
109 "

Distance between dynamo or electric motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying 7 Amperes 26 feet from standard compass 20 feet from steering compass

A cable carrying 5 Amperes 30 feet from standard compass 25 feet from steering compass

A cable carrying 21 Amperes 40 feet from standard compass 35 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

nil

degrees on

course in the case of the

standard compass and

nil

degrees on

course in the case of the steering compass.

SWAN, HUNTER, & WIGHAM RICHARDSON

Builder's Signature.

Date

Nov 1906.

GENERAL REMARKS.

The installation examined & found satisfactory

John H Heck.

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

Committee's Minute.

It is submitted that the Record Elec. Light be noted in the Reg. Book

Lloyd's Register Foundation

15.11.06

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.