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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 25881

RETAIN

Port of *Hull*   Date of First Survey *Feb. 5th*   Date of Last Survey *Feb. 25/13* No. of Visits *10*

No. in on the Steel *S.S. Mont Michel*   Port belonging to *Bordeaux*

Sept '13 Reg. Book   Built at *Alblasserdam*   By whom *N. V. Werf de Noord*   When built *1913-2*

Owners *Cie Navale de l'Oceane*   Owners' Address

Yard No.   Electric Light Installation fitted by *The Humber Electrical Eng'g Co*   When fitted *1913*

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Vertical High Pressure Engine, closed type, coupled direct to continuous current, compound wound dynamo

Capacity of Dynamo *41* Amperes at *110* Volts, whether continuous or alternating current *continuous*

Where is Dynamo fixed *in Engine Room*   Whether single or double wire system is used *double*

Position of Main Switch Board is *near Dynamo* having switches to groups *A. B. C. D. E & Search* of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each *None. Distribution fuse boxes fitted in Engine room, Wheelhouse, Forecastle, Saloon & After cabin*

If cut outs are fitted on main switch board to the cables of main circuit *yes* and on each auxiliary switch board *distribution box* to the cables of auxiliary

circuits *yes* and at each position where a cable is branched or reduced in size *✓* 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 *25%* 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 *yes*

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

Total number of lights provided for *60* arranged in the following groups :—

A *Twenty (E.R.)* lights each of *sixteen* candle power requiring a total current of *6·3* Amperes

B *Five (Wairgate)* lights each of *sixteen* candle power requiring a total current of *1·5* Amperes

C *Five (F'cl)* lights each of *sixteen* candle power requiring a total current of *1·5* Amperes

D *Nine (Saloon)* lights each of *sixteen* candle power requiring a total current of *2·6* Amperes

E *Ten (Aft Cabin)* lights each of *sixteen* candle power requiring a total current of *3·1* Amperes

One search lights each of *20·0* Amperes

One Mast head light with *one* lamps each of *32* candle power requiring a total current of *·8* Amperes

two Side light with *one* lamps each of *32* candle power requiring a total current of *1·0* Amperes

Two Cargo lights of *six 16* candle power, whether incandescent or arc lights *incandescent*

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

All lamps are Metal Filaments except search

Where are the switches controlling the masthead and side lights placed *Chart Room*

DESCRIPTION OF CABLES.

Main cable carrying *41* Amperes, comprised of *7* wires, each *16* L.S.G. diameter, *·022* square inches total sectional area

Branch cables carrying *10* Amperes, comprised of *3* wires, each *20* L.S.G. diameter, *·003* square inches total sectional area

Branch cables carrying *5* Amperes, comprised of *1* wires, each *18* L.S.G. diameter, *·0018* square inches total sectional area

Search light Leads to lamps carrying *25* Amperes, comprised of *7* wires, each *18* L.S.G. diameter, *·0125* square inches total sectional area

Cargo light cables carrying *2* Amperes, comprised of *64* wires, each *35* L.S.G. diameter, square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

600 grade (Henley's) vulcanized india rubber, taped & lead covered in cabins lead covered braided & armoured in Engine room & exposed places. All mains twin wire

Joints in cables, how made, insulated, and protected *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 *✓*

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 *Lead covered & armoured, clipped to underside of decks & to Bulkheads with wrought iron clips*

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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 _Lead covered &_
armoured

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

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

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

How are cables carried through beams _Lead bushes where not armoured_ through bulkheads, &c. _Watertight Glands_

How are cables carried through decks _Strong galvanized iron deck tubes_

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

If so, how are they protected _Lead covered & armoured_

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

If so, how are the lamp fittings and cable terminals specially protected _Bulkhead fittings with Iron Guards_

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

If in the spaces, how are they specially protected _✓_

Are any switches or cut outs fitted in bunkers _no_

Cargo light cables, whether portable or permanently fixed _portable_   How fixed _W.T connection boxes_

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 _____ 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 _100_ per cent. that of pure copper.

Insulation of cables is guaranteed to have a resistance of not less than _100_ 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.

FOR
THE HUMBER ELECTRICAL ENGINEERING Cº
W.E Shuttleworth
PROPRIETOR

FOR EARLES
SHIPBUILDING & ENGINEERING CO. LIMITED
Electrical Engineers   Date _14/ March /13_
F.J. Fakethorpe SECRETARY

COMPASSES.

Distance between dynamo or electric motors and standard compass _about 50 feet_

Distance between dynamo or electric motors and steering compass _about 50 feet_

The nearest cables to the compasses are as follows :—

A cable carrying _·25_ Amperes _3_ feet from standard compass _3_ feet from steering compass

A cable carrying _·25_ Amperes _3_ feet from standard compass _3_ 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 _nil_ degrees on _✓_ course in the case of the standard compass and _✓_ degrees on _nil_ course in the case of the steering compass.

Builder's Signature.   Date

GENERAL REMARKS.
This vessel has been fitted with an electric light installation as above & the workmanship is good, on completion it was tested under full working conditions & found satisfactory

It is submitted that this vessel is eligible for
THE RECORD _Elec. light_   _H.W.D._   _1/4/13_

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

Committee's Minute _____