Rpt. 13.

FRI 30 MAR 1917

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REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 29867

Port of Hull Date of First Survey Feb 22/17 Date of Last Survey Mar 14/17 No. of Visits 4

No. in Reg. Book 51 Supp on the ~~Iron or~~ Steel Screw Trawler Simpson Port belonging to Grimsby

Built at Beverley By whom Cook, Welton & Gemmell When built 1917.

Owners Standard Steam Trawling Co Owners' Address Grimsby

Yard No. 352 Electric Light Installation fitted by Humber Electric Eng. Co When fitted 1917

DESCRIPTION OF DYNAMO, ENGINE, ETC.

Robey open type engine direct coupled to Tate Compound wound dynamo running at 450. R.P.M.

Capacity of Dynamo 50 ✓ Amperes at 65 ✓ Volts, whether continuous or alternating current Direct ✓

Where is Dynamo fixed Engine room Whether single or double wire system is used Double ✓

Position of Main Switch Board " " near Dynamo having switches to groups Three of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each One 5 way distribution box in forecastle, one 3 way in engine room, one 10 way in wheel house, and one 5 way in Cabin aft

If fuses are fitted on main switch board to the cables of main circuit No 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 fuses fitted to both flow and return wires or cables of all circuits including lamp circuits Yes

Are the fuses of non-oxidizable metal Yes and constructed to fuse at an excess of 25 % per cent over the normal current

Are all fuses 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 fuses constructed of incombustible materials and fitted on incombustible bases Yes

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

A	9	lights each of	16	candle power requiring a total current of	8·1	Amperes
B	26	lights each of	16	candle power requiring a total current of	23·4	Amperes
C	12	lights each of	16	candle power requiring a total current of	10·8	Amperes
D	13	lights each of	16	candle power requiring a total current of	11·9	Amperes
E		lights each of		candle power requiring a total current of		Amperes
3	Mast head light with 1	lamps each of	32	candle power requiring a total current of	included	Amperes
2	Side light with 1	lamps each of	32	candle power requiring a total current of	in above	Amperes
2	Cargo lights of 1 of 6 + 1 of 2		16	candle power, whether incandescent or arc lights	incandescent	

If arc lights, what protection is provided against fire, sparks, &c. No arcs

Where are the switches controlling the masthead and side lights placed Wheel house

DESCRIPTION OF CABLES.

Main cable carrying 50 ✓ Amperes, comprised of 19 wires, each 18 S.W.G. diameter, ·034 ✓ square inches total sectional area

Branch cables carrying 23 Amperes, comprised of 7 wires, each 20 S.W.G. diameter, ·007 ✓ square inches total sectional area

Branch cables carrying 12 Amperes, comprised of 3 wires, each 20 S.W.G. diameter, ·003 ✓ square inches total sectional area

Leads to lamps carrying 1 Amperes, comprised of 1 wires, each 18 S.W.G. diameter, ·0018 ✓ square inches total sectional area

Cargo light cables carrying 5·4 Amperes, comprised of 130 wires, each 40 S.W.G. diameter, ·0024 ✓ square inches total sectional area

DESCRIPTION OF INSULATION, PROTECTION, ETC.

V. I. R. Cables lead covered and lead covered and armoured of Henleys manufacture

Joints in cables, how made, insulated, and protected No joints

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances ✓ 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 Through beams clipped to underside of deck and to bulk heads with strong wrought iron galvanised clips.

DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.

Are they in places always accessible no ✓

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture Lead covered and armoured. ✓

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

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

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

How are cables carried through beams Lead bushed where not armoured *through bulkheads, &c.* Brass water tight glands ✓

How are cables carried through decks Galvanised wrought iron deck pipes. ✓

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 Lead covered and armoured.

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

If so, how are the lamp fittings and cable terminals specially protected C. T. fittings with heavy brass glands.

Where are the main switches and fuses for these lights fitted Forecastle

If in the spaces, how are they specially protected ✓

Are any switches or fuses 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 ✓

Is the installation supplied with a voltmeter Yes, *and with an amperemeter* Yes, *fixed* main switch board

VESSELS BUILT FOR CARRYING PETROLEUM.

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas ✓

Are any switches, fuses, 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 not less than that of the Engineering Standards Committee's standard, and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 *megohms per statute mile at 60° Farhenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.*

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 HUMBER ELECTRICAL ENGINEERING Co.
W. E. Shuttleworth PROPRIETOR *Electrical Engineers* *Date*

COMPASSES.

Distance between dynamo or electric motors and standard compass about 40 feet

Distance between dynamo or electric motors and steering compass " "

The nearest cables to the compasses are as follows:—

A cable carrying 2 *Amperes* lead to — *feet from standard compass* 4 to — *feet from steering compass*

A cable carrying *Amperes* *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

The maximum deviation due to electric currents, etc., 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.*

COOK, WELTON & GEMMELL, LTD.
W. Patterson DIRECTOR *Builder's Signature.* *Date* March 28th/17

GENERAL REMARKS.

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

It is submitted that this vessel is eligible to THE RECORD. Elec. light. J.W.D. 4/4/17.

Geo. Clean
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

15c.J.16.—Transfer.