

MON. JAN. 17 192

No. 6055.

No. in Reg. Book	on the Iron or Steel	to	Port belonging to
68022	Build at	By whom	When built
	Rotterdam	Wilson's Engineering & Shipway Co.	1919
Owners	Akt. Dampskibsselskabet, "Dannebrog"	Owners' Address	
		C. H. Hansen, Toldbodvej 15 Copenhagen	
Yard No.	✓	Electric Light Installation fitted by	When fitted
		Mb. Burmeister & Wain's Master, Kistebjerg	1920
		Copenhagen	

### DESCRIPTION OF DYNAMO, ENGINE, ETC.

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*A compound wound Dynamo, directly coupled to a vertical single cylinder steam engine*

Capacity of Dynamo *68* 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 wire*

Position of Main Switch Board *In Engine room* having switches to group *distribution switch board in telegraph room (on bridge of lights, &c., as below)*

Positions of auxiliary switch boards and numbers of switches on each *A in telegraph room, 3 switches (wireless) B in telegraph room distribution board, 5 switches + 1 spare do to 5 groups of lights &c., C in chart room 7 switches, D in accommodation amid-ship, 3 switches, E in crew space aft. 1 switch, F in engine room, 4 switches + 1 spare do (on main switch board)*

If fuses 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 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 *100* 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 *Excess not used*

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases *yes*

Total number of lights provided for *141* arranged in the following groups:—

	lights each of	candle power requiring a total current of	Amperes
A <i>crew space forward</i>			
B <i>2 lamps + 1 cargo light</i>	8 lights each of 10	25	2, 5
C <i>6 lamps + 5</i>	11 lights each of 10	16 25	6, 6
D <i>navigation lamps</i>	76 lights each of 10	16 25	21, 0
E <i>40 lamps + 6</i>	21 lights each of 10	16 25	5, 7
F <i>25 " " " " " " " " " " " "</i>	22 of 10-16-25, 3 of 100	" " " " " " " " " "	8, 0
2 Mast head light <i>each</i> with 1 lamps each of 32			2, 1
2 Side light <i>each</i> with 1 lamps each of 32			2, 1
8 <i>each</i> Cargo lights of 6 lamps of 25			

*8 plug connections for cargo lights are fitted, but only 4 portable cargo lights are now placed on board*

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

Where are the switches controlling the masthead and side lights placed. *In the chartroom (switch board C)*

### DESCRIPTION OF CABLES.

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Main cable carrying	68	Amperes, comprised of	7	wires, each	2.52	S.W.G. diameter,	35	square inches	total sectional area
Branch cables carrying	43.8	Amperes, comprised of	7	wires, each	1.7	S.W.G. diameter,	16	square inches	total sectional area
Branch cables carrying	21	Amperes, comprised of	7	wires, each	1.35	S.W.G. diameter,	10	square inches	total sectional area
" " " "	6.6	" " " "	1	" " " "	1.78	" " " "	2.5	" " " "	" " " "
Leads to lamps carrying	1.5	Amperes, comprised of	1	wires, each	1.38	S.W.G. diameter,	1.5	square inches	total sectional area
Cargo light cables carrying	1.6	Amperes, comprised of	2 × 24	wires, each	0.2	S.W.G. diameter,	2 × 1.5	square inches	total sectional area

### DESCRIPTION OF INSULATION, PROTECTION, ETC.

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Turned and insulated with pure and vulcanized india rubber, taped and lead covered,  
then taped and armoured with galvanic steel wire or with steel tape and braided

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

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 Secured by screwed clips and in cargo spaces and where necessary protected by galvanized iron tubes.



**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 *The cables are lead covered and armoured with galvanized steel wire, and where necessary lead through iron tubes (galvanized)*

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat *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 *do* through bulkheads, &c. *waterlight screwed glands*

How are cables carried through decks *through iron 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 *✓*

If so, how are they protected *lead covered, armoured with steel wire and lead through iron tubes*

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 *✓*

Where are the main switches and fuses for these lights fitted *✓*

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 - 2 off*, and with an amperemeter *yes - 2 off*, fixed (2) *1) on main switch board, 2) in telegraph room*

**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 1200 megohms per statute mile at 60° Fahrenheit 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.

**AKTIESELSKABET**  
**BURMEISTER & WAINSKIN- OG SKIBSBYGGERI.**

*EB* Electrical Engineers

Date *May 21*

**COMPASSES.**

Distance between dynamo or electric motors and standard compass *60'*

Distance between dynamo or electric motors and steering compass *56'*

The nearest cables to the compasses are as follows:—

Cable	Carrying	Amperes	Feet from standard compass	Feet from steering compass
A cable carrying	68	18	14	14
A cable carrying	43.8	16	12	12
A cable carrying	0.25	for illumination of feet from standard compass, and for illumination of 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 *0* degrees on *all* course in the case of the standard compass and *0* degrees on *all* course in the case of the steering compass.

**AKTIESELSKABET**  
**BURMEISTER & WAINSKIN- OG SKIBSBYGGERI.**

Builder's Signature.

Date *May 21*

**GENERAL REMARKS.**

The electric Lighting installation as above described is in accordance with the requirements of the Rules, the approved plan, London letter E dated 31st December 1920. The workmanship and the material are of good description in every respect, and the whole electric lighting installation has been tested under full working condition and found satisfactory. Recommend the vessel to have notation of "Electric Light" in the Register Book.

It is submitted that  
this vessel is eligible for  
**THE RECORD. Elec Light Rec 120/121**

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.



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