

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 19th Sept 1929 When handed in at Local Office 27th Sept 1929 Port of Gothenburg Received at London Office 30 SEP 1929

No. in Survey held at Gothenburg Date, First Survey 1st August Last Survey 10th Sept. 1929
Reg. Book. 34686 on the Steel Twin "Solglimt" Stockholm (Number of Visits 6)

Built at Hamburg By whom built Blohm & Voss F/K "Solglimt" Tons 12279
ex. "Stockholm" Net 7123
When built 1900-5

Owners Hvalfangerselskapet "Atlas" A/S Port belonging to Larvik.

Electric Light Installation fitted by AB Götaverken Contract No. - When fitted 1929

System of Distribution Two-wire system.

Pressure of supply for Lighting 110 volts, Heating - volts, Power 110 volts.

Direct or Alternating Current, Lighting Direct Power Direct.

If alternating current system, state frequency of periods per second -

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes.

Generators, do they comply with the requirements regarding rating Yes., are they compound wound Yes.

are they over compounded 5 per cent. Yes., if not compound wound state distance between each generator -

Where more than one generator is fitted are they arranged to run in parallel No., is an adjustable regulating resistance fitted in series with each shunt field Yes.

Are all terminals accessible, clearly marked, and furnished with sockets Yes., are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes.

Are the lubricating arrangements of the generators as per Rule Yes.

Position of Generators In a recess at the starboard side of the engine room.

Is the ventilation in way of the generators satisfactory Yes., are they clear of all inflammable material Yes.

Are they situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators -

and -, are the generators protected from mechanical injury and damage from water, steam or oil Yes.

Are their axes of rotation fore and aft Yes.

Earthing, are the bedplates and frames of the generating plant efficiently earthed Yes. are the prime movers and their respective generators in metallic contact Yes.

Main Switch Boards, where placed On a platform over the generators

If the generators and main switchboard are not placed in the same compartment, is each generator provided with fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard -

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes.

Are they protected from mechanical injury and damage from water, steam or oil Yes., if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards - and -

Are they constructed wholly of durable, non-ignitable non-absorbent materials of marble, is all insulation of high dielectric strength and of permanently high insulation resistance Yes.

if semi-insulating material is used, are all conducting parts insulated from the slab Yes.

Is the mica or micanite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework Yes.

Is the frame effectively earthed Yes. Are the fittings as per Rule regarding:— spacing or shielding of live parts Yes.

, accessibility of all parts Yes., absence of fuses on back of board -, proportion of omnibus Yes.

, individual fuses to voltmeter, pilot or earth lamp Yes., connections of switches Yes.

In Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches For each generator: A double

pole switch and a fuse at each pole. For each outgoing circuit: A single pole switch and

fuse at each pole. No equalizer switches.

Instruments on main switchboard 3 ammeters 3 voltmeters - synchronising device for paralleling purposes.

For Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system Earth Lamps for

each generator

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules Yes.

At Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes.



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HAM 1122-0030 1/2

Single and twin ones
Cables: Single, twin, concentric, or multicore are the cables insulated and protected as per Tables IV or V of the Rules. Yes. 2 volt + 3 pr. cent for lighting power

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 2 " + 5 " "

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets Yes.

Paper Insulated Cables. If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound -

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uptakes or other hot objects, or to avoidable risk of mechanical damage Yes.

Support and Protection of Cables, state how the cables are supported and protected supported by metal clips, all power cables lead covered and armoured, lighting lead covered in cabins. For the rest lead covered and steel If cables are run in wood casings, are the casings and caps secured by screws Yes, are the cap screws of brass Yes, are the cables run in separate grooves No. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII Yes.

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements Yes.

Joints in Cables, state if any, and how made, insulated, and protected No joints in main cables. Joints in branch cables as pr. rule.

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands Yes.

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the bushes efficiently bushed Yes. state the material of which the bushes are made Lead.

Earthing Connections, state what earthing connections are fitted and their respective sectional areas - are their connections made as per Rule -

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule Yes.

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven -

Navigation Lamps, are these separately wired Yes, controlled by separate switch and separate fuses. Yes. are the fuses double pole Yes. are the switches and fuses grouped in a position accessible only to the officers on watch has each navigation lamp an automatic indicator as per Rule Yes.

Secondary Batteries, are they constructed and fitted as per Rule -

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected how are the cables led where are the controlling switches situated

Searchlight Lamps, No. of - , whether fixed or portable - , are their fittings as per Rule -

Are Lamps, other than searchlight lamps, No. of - , are their live parts insulated from the frame or case - , are their fittings as per Rule -

Motors, are their working parts readily accessible Yes. are the coils self-contained and readily removable for replacement Yes. are the brushes, brush holders, terminals and lubricating arrangements as per Rule Yes. are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material Yes. are they protected from mechanical injury and damage from water, steam or oil Yes. are their axes of rotation fore and aft Yes. if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type - , if not of this type, state distance of the combustible material horizontally or vertically above the motors - and -

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule Yes.

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule Yes.

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings - If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office -

PARTICULARS OF GENERATING PLANT.									
DESCRIPTION OF GENERATOR.	No of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.		
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.	
MAIN	2	63	110	571	380	Steam engine			
Emergency	1	16.5	110	150	275	" "			
ROTARY TRANSFORMER									

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	3	150	37	2.27	571	14-6	Rubber	Lead covered and armoured
	Emergency Generator...	1	95	19	2.52	150	20	"	" " " "
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS								
	ENGINE ROOM	1	4	7	0.86	20	30	"	" " " "
	BOILER ROOM								
	Bridges and "A" deck	1	16	7	1.71	38	80	"	" " " "
	Accommodation on "B" deck	1	4	7	0.86	14	65	"	" " " "
	" " "C" " "	1	4	7	0.86	10	60	"	" " " "
	" " forward	1	10	7	1.35	10	250	"	" " " "
	" " aft	1	25	7	2.13	33	150	"	" " " "
	Lanterns	1	2.5	7	0.67	2	120	"	" " " "
	Refrigt rooms	1	2.5	7	0.67	7	40	"	" " " "
	Deck forward.	1	35	19	1.53	50	160	"	" " " "
	" " aft	1	10	7	1.35	19	110	"	" " " "
	Boiler plant "B" deck forward	1	10-2.5	7	1.35-0.67	20-7	90-45	"	" " " "
	" " " " aft.	1	16-2.5	7	1.71-0.67	25-14	100-40	"	" " " "
	" " " " forward	1	16-2.5	7	1.71-0.67	25-14	100-40	"	" " " "
	" " " " aft.	1	10	7	1.35	25	100	"	" " " "
	WIRELESS								
	SEARCHLIGHT								
	MASTHEAD LIGHT...	1	1.5	1	1.38	0.5	150-220	"	" " " "
	SIDE LIGHTS	1	1.5	1	1.38	0.5	50-50	"	" " " "
	COMPASS LIGHTS	1	1.5	1	1.38	0.5	20	"	" " " "
	POOP LIGHTS	1	1.5	1	1.38	0.5	40	"	" " " "
	CARGO LIGHTS								
	ARC LAMPS								
	HEATERS								

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Ampères.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP								
	MAIN BILGE LINE PUMPS								
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
	CIRC. SEA WATER PUMPS								
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
	FRESH WATER PUMP								
	ENGINE TURNING GEAR								
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
	OIL FUEL TRANSFER PUMP								
	WINDLASS								
	WINCHES, FORWARD								
	WINCHES, AFT								
	STEERING GEAR								
	(a) MOTOR GENERATOR...								
	(b) MAIN MOTOR								
	WORKSHOP MOTOR S	1-1	4	7	0.86	22; 24	35-100	Rubber	Lead covered and armoured
	VENTILATING FANS	3-1	6; 50	7-19	1.05-1.8	28; 96	240-4670-110	"	" " " "
	Separators	9	2-70	19	2.17	288	100	"	" " " "
	Each separator	1	6	7	1.05	32	10	"	" " " "
	Elevators	4	35	19	1.53	80	100-190-100-80	"	" " " "
	Grind stones	2	2.5	7	0.67	16	120-75	"	" " " "
	Workshop motors	1-1	6; 10	7	1.05-1.35	30-40	160-100	"	" " " "

All Conductors are of annealed copper conforming to British Standard Specification No. 7.
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.
The foregoing is a correct description.

AB. GÖTAVERKEN.

Electrical Engineers.

Date IX.19.29.

COMPASSES.

Distance between electric generators or motors and standard compass about 30 met.

Distance between electric generators or motors and steering compass about 30 met.

The nearest cables to the compasses are as follows:—

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

A cable carrying Ampères feet from standard compass feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power.....

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted.....

The maximum deviation due to electric currents was found to be degrees on course in the case of the standard compass, and degrees on course in the case of the steering compass.

AKTIEBOLAGET GÖTAVERKEN

Urb. J. Nedén

Builder's Signature.

Date IX.19.29.

Is this installation a duplicate of a previous case No. If so, state name of vessel.....

General Remarks (State quality of workmanship, opinions as to class, &c.....)

This Electric Installation has been fitted on board this vessel under my inspection and has been tested and found satisfactory.

The workmanship is good.

All the Rule requirements have been complied with.

Chc. Right

11/10/29

Total Capacity of Generators 142.5 Kilowatts.

The amount of Fee £ 611.52 : When applied for, 27.10.29

Travelling Expenses (if any) £ : : When received, 22.10.29

A. Brander
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 16 OCT 1929

FRI. 3 OCT 1930

FRI. 21 NOV 1930



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