

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

20 JAN 1930

Received at London Office

Date of writing Report 13th Jan 1930 When handed in at Local Office 18th Jan 1930 Port of Gothenburg

No. in Survey held at GOTHENBURG Date, First Survey 30th Nov 1929 Last Survey 11th Jan 1930

Reg. Book. Supplement 2777 on the SINGLE SCREW MOTOR VESSEL "VASAHOLM" Tons { Gross 4917 Net 2475

Built at GOTHENBURG By whom built AB GÖTAVERKEN Yard No. 426 When built 1930

Owners AB. SVENSKA AMERIKA MEXIKO LINJEN Port belonging to GOTHENBURG

Electric Light Installation fitted by AB GÖTAVERKEN Contract No. 426 When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution TWO WIRE SYSTEM

Pressure of supply for Lighting 110 volts, Heating 220 volts, Power 220 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 YES, 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 ONE AT THE PORT SIDE AND TWO AT THE STARBOARD SIDE OF THE MOTORROOM

is the ventilation in way of the generators satisfactory YES, are they clear of all inflammable material YES

if 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 AFT IN THE MOTORROOM

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a 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

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 with mica or mica-nite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework YES

and 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 bars YES, individual fuses to voltmeter, pilot or earth lamp YES, connections of switches YES

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches FOR EACH GENERATOR:

A DOUBLE POLE CIRCUIT-BREAKER WITH OVERLOAD AND REVERSED CURRENT TRIPS AND A SINGLE POLE EQUALIZER SWITCH, FOR EACH OUTGOING CIRCUIT: A SINGLE POLE SWITCH AND A FUSE AT EACH POLE

Instruments on main switchboard 8 ammeters 5 voltmeters — synchronising device for paralleling purposes.

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system OHM-METERS

FITTED WITH COMMUTATORS FOR BOTH POLES

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

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule YES



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AND
Cables: Single, twin, concentric, or multicore are the cables insulated and protected as per Tables IV or V of the Rules **YES**
 Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load **2 VOLT + 3 PER CENT FOR LIGHTING**
2 - 1 - + 5 - - - - - POWER
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 CABLES LEAD-COVERED IN CABINS, FOR THE REST LEAD-COVERED AND STEEL WIRE PLATED OR ARMoured.
 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 holes 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 **YES**, has each navigation lamp an automatic indicator as per Rule **YES**
Secondary Batteries, are they constructed and fitted as per Rule **YES**
Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight **YES**, 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
Arc 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 **EXCEPT THE TURNING MOTOR** 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	3	66	220	300	300	DIESELMOTORS	DIESEL OIL	ABOVE 150° F
AUXILIARY								
EMERGENCY								
ROTARY TRANSFORMER	1	14	P. 220 S. 110	75 127	1350			

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION.	CONDUCTORS.			COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length (Lead and Return.) Feet. MET	Insulated with	HOW PROTECTED.
	No. per Pole.	Total Effective Area per Pole Sq. mm. $\frac{1}{4}$	No.	Diameter.	In Circuit.	Rule.				
MAIN GENERATOR	2	190	19	2.52	300	300	30-40-50	RUBBER	LEAD COVERED AND STEEL ARMoured	
EQUALISER CONNECTIONS	2	190	19	2.52	300	300	30-40-50	"	" " " "	
AUXILIARY GENERATOR										
EMERGENCY GENERATOR										
ROTARY MOTOR	1	25	7	2.19	75	75	10	"	" " " "	
TRANSFORMER GENERATOR	1	70	19	2.17	127	127	10	"	" " " "	
ENGINE ROOM	1	430	37	12.5	96	14	10	"	" " " "	
BOILER ROOM										
AUXILIARY SWITCHBOARDS										
LIGHT. DISTR. BOARD I	1	6	7	1.05	8	8	100	"	" " " "	
" " " II	1	10	7	1.35	14	14	80	"	" " " "	
" " " III	1	6	7	1.05	13	13	40	"	" " " "	
" " " IV	1	4	7	0.86	10	10	60	"	" " " "	
" " " V	1	10	7	1.35	14	14	80	"	" " " "	
ACCOMMODATION	1	25	7	0.67	3	3	90	"	" " " "	
" " " VIII	1	16	7	1.71	16	16	130	"	" " " "	
SECONDARY BATTERY	1	16	7	1.71	40	40	40	"	" " " "	
COOKING	1	10	7	1.35	30	30	40	"	" " " "	
WIRELESS	1	6	7	1.05	25	25	90	"	" " " "	
SEARCHLIGHT										
MASTHEAD LIGHT	1	1.5	1	1.38	0.5	0.5	150-80	"	" " " "	
SIDE LIGHTS										
COMPASS LIGHTS	250	1.5	1	1.38	0.3	0.3	40-40	"	" " " "	
POOP LIGHTS										
CARGO LIGHTS										
ARC LAMPS										
HEATERS										

MOTOR CONDUCTORS.

DESCRIPTION.	CONDUCTORS.			COMPOSITION OF STRAND.		TOTAL MAXIMUM CURRENT.		Approximate Length (Lead and Return.) Feet. MET	Insulated with	HOW PROTECTED.
	No. of Motors.	No. per Pole.	Total Effective Area per Pole Sq. mm. $\frac{1}{4}$	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP	1500	16	145	19	2.52	176	20	RUBBER	LEAD COVERED AND STEEL ARMoured	
MAIN BILGE LINE PUMPS										
GENERAL SERVICE PUMP	1	1	10	7	1.35	39	60	"	" " " "	
EMERGENCY BILGE PUMP	1500	11.5	11.5							
SANITARY PUMP										
CIRC. SEA WATER PUMPS	2	1	25	7	2.13	70	50-52	"	" " " "	
CIRC. FRESH WATER PUMPS										
AIR COMPRESSOR										
FRESH WATER PUMP										
ENGINE TURNING GEAR	1	10.5	6	7	1.05	32	8	"	" " " "	
ENGINE REVERSING GEAR										
LUBRICATING OIL PUMPS	2	1	25	7	2.13	70	30-36	"	" " " "	
OIL FUEL TRANSFER PUMP	1	1	10	7	1.35	36	40	"	" " " "	
WINDLASS	2	1	70	19	2.17	126	160-160	"	" " " "	
WINCHES, FORWARD	4	1	70	19	2.17	2-68	120-120	"	" " " "	
" " HATCH #3	2	1	70	19	2.17	2-68	60	"	" " " "	
WINCHES, AFT	4	1	70	19	2.17	2-68	70-70	"	" " " "	
STEERING GEAR—										
(a) MOTOR GENERATOR	2	1	35	19	1.53	100	120-120	"	" " " "	
(b) MAIN MOTOR										
WORKSHOP MOTOR	1	1	1.5	1	1.38	8	30	"	" " " "	
VENTILATING FANS	2	1	1.5	1	1.38	8	10-14	"	" " " "	
COOLING WATER PUMP	1	1	25	7	0.67	12	60	"	" " " "	
LUBR. OIL SEPARATOR	1	1	10	7	1.35	38	6	"	" " " "	
FUEL OIL SEPARATOR	1	1	1.5	1	1.38	8	6	"	" " " "	
BATH WATER PUMP	1	6.5	1.5	1	1.38	6	60	"	" " " "	

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.

A.B. GÖTAVERKEN

Electrical Engineers.

Date I. 13. 30

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

U. B. J. Meder

Builder's Signature.

Date I. 13. 30

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.

It is submitted that
 this vessel is eligible for
 THE RECORD.

Elec. Light

U. B. J. Meder 23/1/30

U. B. J. Meder

Total Capacity of Generators 198 Kilowatts.

The amount of Fee ... £ 662.48 : When applied for, 18th Jan. 19. 30

Travelling Expenses (if any) £ : : When received, 10/2/30

U. B. J. Meder
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 24 JAN 1930

Assigned

Elec. Lt.

Im. 1228.—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)



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