

Rpt. 13.

No. 2190

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

- 3 DEC 1951

Date of writing Report 24/11, 1951. When handed in at Local Office 29/11, 1951. Port of HELSINGBORG

No. in Survey held at Landskrona Date, First Survey 21st Sept. Last Survey 15th Nov. 1951
Reg. Book. (No. of Visits 17)40179 on the Motortanker "M A R G I T G O R T H O N". Tons { Gross 10034
Net 5867

Built at Landskrona By whom built Öresundsvarvet A/B Yard No. 118 When built 1951

Owners Rederi A/B Gylfe Port belonging to Helsingborg

Installation fitted by Öresundsvarvet A/B When fitted 1951

Is vessel equipped for carrying Petroleum in bulk Yes Is vessel equipped with D.F. Yes E.S.D. Yes Gy.C. Yes Sub.Sig. No Radar Yes

Plans, have they been submitted and approved Yes System of Distribution Two wire Voltage of Lighting 110

Heating 110 & 220 Power 220 D.C. or A.C., Lighting D.C. Power D.C. If A.C. state frequency -

Prime Movers, has the governing been found as per Rule when full load is thrown on and off Yes Are turbine emergency governors fitted

with a trip switch - Generators, are they compound wound Yes, and level compounded under working conditions Yes

if not compound wound state distance between generators - and from switchboard - Are the generators arranged to run

in parallel Yes, are shunt field regulators provided Yes Is the compound winding connected to the negative or positive pole

Negative Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing Yes Have certificates of

test for machines under 100 kw. been supplied Yes and the results found as per Rule Yes

Position of Generators 1 oil engine driven on port side and 1 ditto on stbd. side E.R. floor;

1 steam driven on a platform on port side E.R.

is the ventilation in way of generators satisfactory Yes are they clear of inflammable material and protected from mechanical injury and

damage from water, steam and oil Yes Switchboards, where are main switchboards placed On a platform on port

side E.R.

are they in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,

steam and oil Yes, what insulation is used for the panels Dead front type, if of synthetic insulating

material is it an Approved Type - if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as

per Rule - Is the construction as per Rule, including locking of screws and nuts Yes Description of Main Switchgear

for each generator and arrangement of equaliser switches. A double pole linked circuit breaker with overload and

reversed current trips and a single pole equaliser switch interlocked with the circuit

breaker as per Rule

and the switch and fuse gear (or circuit breakers) for each outgoing circuit A double pole linked switch and a fuse

on each pole

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule Yes Instruments on main switchboard 10

ammeters 5 voltmeters - synchronising devices. For compound machines in parallel are the ammeters and reversed current

protection devices connected on the pole opposite to the equaliser connection Yes Earth Testing, state means provided

Ohm-meters

Switches, Circuit Breakers and Fuses, are they as per Rule Yes, are the fuses an Approved Type Yes

make of fuses ASEA & Laur. Knudsen, are all fuses labelled Yes If circuit breakers are provided for the generators, at what

overload do they operate 20%, and at what current do the reversed current protective devices operate 80 A.

Joint Boxes, Section Boards and Distribution Boards, is the construction as per Rule Yes

Cables, are they insulated and protected as per Rule Yes, if otherwise than as per Rule are they of an Approved Type -

state maximum fall of pressure between bus bars and any point under maximum load Below Rule/are the ends of all cables having a sectional

area of 0.01 square inch and above provided with soldering sockets Yes Are all paper insulated and varnished cambric insulated

cables sealed at the ends - Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil,

high temperatures or risk of mechanical damage Yes, are any cables laid under machines or floorplates Yes, if so, are they

adequately protected Yes Are cables in machinery spaces, galleys, laundries, etc., lead covered Yes or run in conduit -

or of the "HR" type - State how the cables are supported or protected Supported by metal clips. All

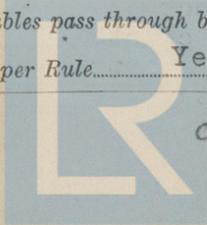
cables lead covered and armoured or steel wire braided, except lighting and heating cables

in accommodations which are lead covered.

Are all lead sheaths, armouring and conduits effectually bonded and earthed Yes Are all cables passing through decks and watertight

bulkheads provided with deck tubes or watertight glands Yes, where unarmoured cables pass through beams, etc., are the holes

effectively bushed Yes Refrigerated chambers, are the cables and fittings as per Rule Yes

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Foundation

Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule... Yes Emergency Supply, state position

Navigation Lamps, are they separately wired Yes controlled by separate double pole switches and fuses. Yes Are the switches and fuses in a position accessible only to the officers on watch. Yes is an automatic indicator fitted. Yes Is an alternative supply provided. Yes

Secondary Batteries, are they constructed and fitted as per Rule... are they adequately ventilated... state battery capacity in ampere hours...

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof Yes

Are any fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present. Yes, if so, how are they protected. Protected by flame proof lamps and cables in gastight piping

and where are the controlling switches fitted. outside the space Are all fittings suitably ventilated. Yes

Searchlight Lamps, No. of... whether fixed or portable... are they of the carbon arc or of the filament type...

Heating and Cooking, is the general construction as per Rule... Yes, are the frames effectually earthed. Yes, are heaters in the accommodation of the convection type. Yes Motors, are all motors constructed and installed as per Rule and placed in well-ventilated compartments in which inflammable gases cannot accumulate and protected from damage from water, steam and oil. Yes

Are motors coupled to oil fuel transfer and pressure pumps capable of being stopped from a position accessible in the event of fire in the pump compartment. Yes Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing...

Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule. Yes

Control Gear and Resistances, are they constructed and fitted as per Rule. Yes Lightning Conductors, where required are they fitted as per Rule...

Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such ships been complied with. Yes, are all fuses of an Approved Cartridge Type. Yes, make of fuse. ASEA & Laur. Knudsen Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships. Yes Are the cables lead covered as per Rule. Yes

E.S.D., if fitted state maker. H. Hughes & Son location of transmitter. In E.R. c/d. and receiver. In E.R. c/d.

Spare Gear, if the vessel is for open sea service have spares been provided as per Rule and suitably stored in dry situations. Yes

Insulation Tests, has the insulation resistance of all circuits and apparatus been tested and found satisfactory. Yes

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT			PRIME MOVER.	
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.	TYPE.
MAIN ...	2	ASEA	200	220	909	350	Oil Eng. Götaverken
"	1	Crompt. Parkinson	50	220	227	550	Steam Eng. Reader
Harbour light.	1	Th. Thrige	20	110	182	1000	Oil Eng. Lister
EMERGENCY ...	-	-	-	-	-	-	-
ROTAry TRANSFORMER	1	Elektromekano	20	110	182	1000	El. motor Elektromekano

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) METERS.	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR Starboard	200	4	740	909	932	70	Rubber	Lead cov. & arm.
" " EQUALISER ...	-	5	925	-	1165	-	"	"
" " Port	200	4	740	909	932	50	"	"
" " Equaliser	-	3	555	-	700	-	"	"
" " Steam driven	50	2	140	227	250	28	"	"
" " Equaliser	-	2	70	-	156	-	"	"
Harbour	20	1	150	182	203	44	"	"
EMERGENCY GENERATOR	31 HP	1	70	118	125	14	"	"
ROTAry TRANSFORMER: MOTOR	20	1	150	182	203	14	"	"

MAIN DISTRIBUTION CABLES (to Section Boards, Distribution Fuse Boards, etc.).

DESCRIPTION.								
Galley and wash-room aft	K1	1	185	228	233	48	"	"
Purifiers E.R.	K2	1	185	209	233	80	"	"
Power and heating amidship	K3	1	70	114	125	210	"	"
Refrigerating machinery	K4	1	10	34,7	38	100	"	"
Workshop	K5	1	25	51	63	70	"	"
Accommodation fans	K6	1	10	26,4	38	20	"	"
Hydrofor pumps	K7	1	70	64	125	80	"	"
Lighting on decks	B1	1	95	88	150	34	"	"
" E.R. and B.R.	B2	1	16	40	48	2	"	"
" amidship	B3	1	35	19	78	210	"	"
" poop deck	B4	1	25	14	63	50	"	"
" main deck stbd.	B5	1	6	8	29	60	"	"
" " " port	B6	1	6	8	29	40	"	"
Navigation light	B7	1	4	4	21	270	"	"

LIGHTING, HEATING, WIRELESS, NAVIGATION LIGHTS, ETC., CABLES.

DESCRIPTION.	No. in Parallel per Pole.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return) METERS.	INSULATION.	PROTECTIVE COVERING.
		Sectional Area sq. mm.	Rule.	In the Circuit.	Rule.			
Navigation light fwd. mast (red)	1	1,5	0,4	7	130	Rubber	Lead cov. & arm.	
" " " (white)	1	1,5	0,4	7	120	"	"	
" " aft "	1	1,5	0,4	7	150	"	"	
" " port	1	1,5	0,4	7	30	"	"	
" " starboard	1	1,5	0,4	7	24	"	"	
Lighting, deck amidship	B8	1	95	65	150	180	"	"
" " fore-castle	B9	1	16	14,8	48	80	"	"
" " gangway aft	1	1,5	1,1	7	120	"	"	
" " forward	1	1,5	1,1	7	70	"	"	
Mast lights, fwd mast	1	4	9,1	21	70	"	"	
" " aft "	1	6	9,1	29	120	"	"	
Lighting on funnel	1	1,5	3,6	7	60	"	"	
" amidship pumproom No.1	1	1,5	1,7	7	140	"	"	
" " " " 2	1	1,5	1,7	7	140	"	"	
" " forward " " 1	1	1,5	1,1	7	30	"	"	
" " " " 2	1	1,5	1,1	7	30	"	"	
Air heater saloon	1	2,5	9,1	13	50	"	Lead covered	
" " master	1	2,5	9,1	13	36	"	"	
" " first officer	1	2,5	9,1	13	34	"	"	
" " chief engineer	1	2,5	9,1	13	26	"	"	
Water " amidship	1	4	11,4	21	20	"	Lead cov. & arm.	
" " E.R.	1	25	54,6	63	40	"	"	
Wireless	1	6	12	29	16	"	"	
Radar	1	6	7	29	36	"	"	
Gyro compass	1	2,5	8	13	34	"	"	
E.S.D.	1	2,5	4	13	32	"	"	

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.						
ME cooling water pumps	2	72	1	240	265	275	18/22	Rubber Lead cov. & arm.
Air compressors	2	53	1	150	198	203	56/60	"
ME lubricating oil pumps	3	44	1	120	166	175	26/30	"
Ballast pump	1	17	1	35	68	78	70	"
Bilge pump	1	11	1	16	45	48	76	"
General service pump	1	13	1	25	52	63	80	"
Fuel oil transfer pump	1	14	1	25	55	63	64	"
Aux. eng. cooling water p.	1	11	1	16	45	48	28	"
ME turning motor	1	12	1	16	48	48	40	"
ER fans	2	6,3	1	6	27	29	50/60	"
Steering engine	2	19	1	50	93	99	10	"
Hydrofor pumps	3	3,75	1	10	32	38	10	"
Refrigerating compr.	1	6	1	6	25	29	90	"
" cool. water pump	1	2	1	2,5	9,5	13	80	"
Purifiers	3	3,5	1	4	15	21	24	"

The Electrical Equipment is installed in accordance with the approved plans and the requirements of the Rules.

All Insulated Conductors are guaranteed to have been tested at the maker's works as specified in the Rules.

The foregoing is a correct description.

ÖRESUNDSVARVET
AKTIEBOLAG

T. Karlsson

Electrical Contractors. Date 27/11 1951.

COMPASSES.

Have the compasses been adjusted under working conditions. Yes

ÖRESUNDSVARVET
AKTIEBOLAG

T. Karlsson

Builder's Signature. Date 27/11, 1951.

Have the foregoing descriptions and schedules been verified and found correct. Yes

Is this installation similar to a duplicate of a previous case. Yes If so, state name of vessel M/T "VESTAN"; Yard 110; Hbg. FE rpt. No. 2100.

Plans. Are approved plans forwarded herewith. No If not, state date of approval. 31.7.51

Certificates. Are certificates of test for motors engaged on essential sea services and generators forwarded herewith. Yes

General Remarks. (State quality of workmanship, whether insulation tests, etc., have been made, opinions as to class, etc.)

This electrical equipment installation has been fitted on board in accordance with the Rules and approved plans.

The workmanship and materials are good.

The installation has been megger-tested throughout, examined under full working conditions and found in order.

Noted ABU 31-12-51

Total Capacity of Generators. 470 Kilowatts.

The amount of Fee Hbg $\frac{4}{5}$ Kr. 1530:00
Sk $\frac{1}{5}$ Kr. 370:00
(Sk) When applied for, 29/11 19 51
Travelling Expenses (if any) Kr. :54:30 When received, -- 19

Torsten Orskov
Surveyor to Lloyd's Register of Shipping.

Committee's Minute. FRI. 4 JAN '52

Assigned. *See F.E. mch. rpt.*