

the

Rpt. 13.

No. 2026

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL) 25 OCT 1941

Received at London Office

Date of writing Report 14th Oct 41. When handed in at Local Office 10th Oct 41. Port of Malmö

No. in Survey held at Malmö Date, First Survey 27 July Last Survey 7th Oct 1941
Reg. Book. (Number of Volls 16)

on the M/T "Fahrtverbohm" Tons { Gross 10236
Net 6183

Built at Malmö By whom built H. K. M. S. A. M. Yard No. 927 When built 1941

Owners Falkenberg Imp. M. S. A. M. Port belonging to Falkenberg

Electrical Installation fitted by H. K. M. S. A. M. Contract No. When fitted 1941

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

Plans have been submitted and approved Yes System of Distribution Two wire system Voltage of supply for Lighting 110

Heating 110 Power 200 Direct or Alternating Current, Lighting Direct Power Direct If Alternating Current state frequency Prime Movers,

has the governing been tested and found efficient when the whole load is suddenly thrown on and off Yes Are turbine emergency governors fitted with a

trip switch as per Rule Generators, are they compound wound Yes, are they level compounded under working conditions Yes

if not compound wound state distances between generators and from switchboard Where more than one generator is fitted are they

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

Positive pole 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 Are the lubricating arrangements and the construction

of the generators as per rule Yes Position of Generators Main - 1 on each side in motor room. Herby - One on

platform - one on each side is the ventilation in way of generators satisfactory Yes are they clear of inflammable material Yes, if situated

near unprotected combustible material state distance from same horizontally and vertically are the generators protected from mechanical

injury and damage from water, steam and oil Yes, are the bedplates and frames earthed Yes and the prime movers and generators in metallic

contact No Switchboards, where are main switchboards placed In front of motor space port side

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

and oil Yes, if situated near unprotected combustible material state distance from same horizontally and vertically, what insulation

material is used for the panels Main - steel, if of synthetic insulating material is it an Approved Type Yes, if of

semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule No conducting parts pass through the panel Is the frame effectually earthed Yes

Is the construction as per Rule Yes, including accessibility of parts Yes, absence of fuses on the back of the board clear space behind panel alt. 80 mm individual fuses

to pilot and earth lamps, voltmeters, etc. Yes locking of screws and nuts Yes, labelling of apparatus and fuses Yes, fuses on the "dead"

side of switches Yes Description of Main Switchgear for each generator and arrangement of equaliser switches

Generators - A double pole circuit breaker with overload and no. current

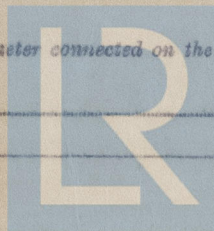
trips and a single pole equaliser switch

and 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 7

ammeters 4 voltmeters synchronising devices For compound machines in parallel is the ammeter connected on the pole opposite to the

equaliser connection No Earth Testing, state means provided Ohm's method



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Switches, Circuit Breakers and Fuses, are they as per Rule....., are the fuses an approved type....., are all fuses labelled as per Rule....., are the reversed current protection devices connected on the pole opposite to the equaliser connection....., have they been tested under working conditions.....

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

Cables, are they insulated and protected as per the appropriate Tables of the Rules....., 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....., are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets..... Are paper insulated and varnished cambric insulated cables sealed at the exposed ends.....

with insulating compound..... or waterproof insulating tape..... 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....., are cables laid under machines or floorplates....., if so, are they adequately protected..... Are cables in machinery spaces, galleys, laundries, etc., lead covered..... or run in conduit..... State how the cables are supported and protected.....

Are all lead sheaths, armouring and conduits effectually bonded and earthed..... Refrigerated chambers, are the cables and fittings as per Rule.....

Are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands....., where unarmoured cables pass through beams, etc., are the holes effectively bushed..... and with what material..... Alternative Lighting, are

the groups of lights in the engine and boiler rooms arranged as per Rule..... Emergency Supply, state position.....
..... and method of control.....

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

Secondary Batteries, are they constructed and fitted as per Rule....., are they adequately ventilated.....

Fittings. Are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof..... Are fittings installed where readily combustible materials or inflammable or explosive dust or gases are likely to be present....., if so, how are they protected.....

and where are the controlling switches fitted, are all fittings suitably ventilated.

are all fittings and accessories constructed and installed as per Rule..... Searchlight Lamps, No. of....., whether fixed or portable.....

..... are their fittings as per Rule..... Heating and Cooking, is the general construction as per Rule.....

are the frames effectually earthed....., are heaters in the accommodation of the convection type..... Motors, are all motors constructed and installed as per Rule..... and placed in well-ventilated compartments in which inflammable gases cannot accumulate and free from damage from water, steam and oil....., if situated near unprotected combustible material state minimum distance from same horizontally..... and vertically.....

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 services been supplied and the results found as per Rule..... Control Gear and Resistances, are they constructed and

less than 150° F. Have all the special requirements of the Rules for such ships been complied with _____, are all fuses of the cartridge type _____

are they of an approved type. Yes If portable lamps for use in dangerous spaces are supplied, are they of a self-contained battery-fed flameproof type. Yes Spare Gear, if the vessel is for open sea service have spares been provided as per Rule 100, are they suitably stored in dry

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

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR	No of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Amps.	Rev. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	2	120	220	520.5	250	Heavy oil engine	Heavy oil	150 F
Emergency	1	90	220	400	575	Heavy oil engine	Heavy oil	150 F
EMERGENCY								
ROTARY TRANSFORMER								

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GENERATOR CABLES.							
DESCRIPTION.	KILOWATTS.	CONDUCTORS		MAXIMUM CURRENT		APPROX. LENGTH (feet plus reserve 25%).	INSULATED WITH.
		No. in Parallel Per Pole.	Sectional Area Sq. Ins. or Sq. Mm.	In the Circuit.	Bals.		
MAIN GENERATOR	120	3	185	52.5	496	✓	rubber
" " EQUALISER		2	150	-	-	✓	rubber
Starling generator	90	2	185	40	404	✓	"
EMERGENCY GENERATOR							
ROTARY TRANSFORMER: MOTOR	2.3	1	70	120	125	✓	"
" " GENERATOR	2.5	1	150	174	200	✓	"

MAIN DISTRIBUTION CABLES.							
AUX. SWITCHBOARDS AND SECTION BOARDS							
A.		1	70	100	125	✓	rubber
E1		1	95	125	150	✓	"
E2		1	6	145	20	✓	"
G.		1	25	42	62	✓	"
H.		1	25	52	62	✓	"
J.		1	10	29	40	✓	"
S.		1	25	26	62	✓	"

LIGHTING AND HEATING, ETC., CABLES.							
WIRELESS		1	10		40	✓	rubber
NAVIGATION LIGHTS		1	6	2	30	✓	"
LIGHTING AND HEATING							
Head light		1	15	0.4	2	✓	"
Side light		1	15	0.4	2	✓	"
Pump light		1	15	0.4	2	✓	"
Stove light		1	15	0.4	2	✓	"
Compass light		1	15	0.4	2	✓	"
Galley		1	50	94	100	✓	"
Oil boiler		1	50	68	100	✓	"
Water boiler		1	15	23	2	✓	"

MOTOR CABLES.							
ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.					
Oil pump	1	5	1	2	19.5	20	✓
Water & condenser pump	1	2	1	10	22	40	✓
Low sea water pump	2	22	1	95	12.5	150	✓
" " " pump w/ing	1	5.5	1	6	21.5	30	✓
High sea water pump	2	26	1	50	99	100	✓
Compass turning gear	1	14	1	25	57	62	✓
Lubricating oil pump	2	10	1	10	28	48	✓
Oil fuel transfer pump w/ing	1	6	1	2	24	20	✓
" " " " " pump	1	6	1	10	23	40	✓
Condenser pump by motor	1	1	1	2.5	4.2	15	✓
Galley oil heater	2	3	1	4	12	22	✓
Galley " " "	1	3	1	4	12	22	✓
Galley pump motor	1	11	1	16	44	48	✓
Galley pump motor	1	3	1	4	12.5	22	✓
Galley pump	1	6	1	6	22.6	20	✓
Galley pump	1	2.2	1	4	9.5	22	✓
Galley " " "	1	2.2	1	4	9.5	22	✓
Galley pump w/ing motor	2	2.5	1	4	14	22	✓
Turning gear	1	15	1	25	58	62	✓



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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.

Electrical Engineers. Date

COMPASSES.

Minimum distance between electric generators or motors and standard compass

Minimum distance between electric generators or motors and steering compass

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.

Builder's Signature. Date

Is this installation a duplicate of a previous case If so, state name of vessel

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

Noted
29/10/41

Total Capacity of Generators Kilowatts.

The amount of Fee When applied for
Travelling Expenses (if any) When received.

Surveyor to Lloyd's Register of Shipping.

FRI. 7 NOV 1941

Committee's Minute

Assigned

