

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 14th Oct. 1949 When handed in at Local Office 19 Received at London Office 5 NOV 1949
 Port of K I E L
 No. in Survey held at K I E L Date, First Survey 19 Last Survey 19
 Reg. Book. 23583 on the M.T. "RINGEJELL" ex "Krossfonn" (No. of Visits 9640)
 Built at Odense By whom built Odense Staalskibsvft. ved AP Yard No. 906 When built 1935
Møller
 Owners Olav Ringdahl Port belonging to Oslo
 Installation fitted by Howaldtswerke Kiel When fitted May 1949
 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. - Radar yes

Plans, have they been submitted and approved yes System of Distribution yes Voltage of Lighting 110 V
 Heating 220 V Power 220 V 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 2 Diesel Are turbine emergency governors fitted
 with a trip switch - Generators, are they compound wound 1 - no 3 - yes, and level compounded under working conditions yes
 if not compound wound state distance between generators 241 and from switchboard 151 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
negativ 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 engine room: stbd. and portside forward, amidships aft, and tweendeck portside
 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 engine room aft, tween deck
 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 Pertinax, 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 - 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.

automatic switches and brackets

and the switch and fuse gear (or circuit breakers) for each outgoing circuit.

knife switches type "Pacco"

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 6
 ammeters 4 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
earth testing lamps

Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes
 make of fuses Siemens, are all fuses labelled yes If circuit breakers are provided for the generators, at what
 overload do they operate 500 and 750 A, and at what current do the reversed current protective devices operate 80 Amps.

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

Cables, are they insulated and protected as per Rule see letter, if otherwise than as per Rule are they of an Approved Type see letter
 state maximum fall of pressure between bus bars and any point under maximum load ca. 4%, 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 see letter or run in conduit partly
 or of the "HR" type - State how the cables are supported or protected clips, tags and pipes

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 see letter

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

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. yes, are they adequately ventilated. yes state battery capacity in ampere hours. 105 Ah

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. only if so, how are they protected. gas tight fitting

and where are the controlling switches fitted. amidships Are all fittings suitably ventilated. yes

Searchlight Lamps, No. of. 2, whether fixed or portable. fixed, are they of the carbon arc or of the filament type. 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. none 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. see letter Are all fuses of an Approved Cartridge Type. yes, make of fuse. Siemens 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. letter

E.S.D., if fitted state maker. Hughes location of transmitter. engine room and receiver. engine room

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.	MAKER.
MAIN ...	1	ABC	100	230	435	500	Diesel	Bohn & Köhler
	1	Siemens	100	230	435	500	Diesel	" "
	1	British made	150	230	666	500	steam	not known
steam generator	1	ABC	30	230	136	750	steam	Bohn & Köhler
ROTARY TRANSFORMER	2 1	Still	24	115	218	1450		Still

GENERATOR CABLES. Note: MK = lead sheathed and braided
MKK = plastic sheathed and braided

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR portside ...	100	2	2 (240)	435	473	40	rubber	MKK
" " starboard ...	100	2	2 (240)	435	473	40	rubber	MKK in conduit
" " ...	150	2	2 (300)	666	680	24	rubber	MKK
Rotary transformer: motor	28	1	70 sqmm	127	123	60	rubber	MKK
generator	24	1	185	218	237	100	rubber	MK
Steam	30	1	95	136	150	30	rubber	MK
EMERGENCY GENERATOR ...	30	1	95	136	150	30	rubber	MK
ROTARY TRANSFORMER: MOTOR	28	1	70	127	123	60	rubber	MKK
for lighting, GENERATOR...	24	1	185 sqmm	218	237	100	rubber	MK

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

DESCRIPTION.	No.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	MAXIMUM CURRENT IN AMPERES.	APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
I engine room	1	2x16	60	49	20	rubber MKK
II boiler room	1	2x2,5	15	16	16	rubber MKK
III steering flat	1	2x6	25	30	80	rubber MKK
IV starboard. aft	1	2x6	25	30	100	rubber MKK
V portside. aft	1	2x6	25	30	100	rubber MKK
VI Poop	1	2x6	25	30	80	rubber MKK
VII gyro compass room	1	1x50	100	100	620	rubber MK
VIII accommodation	1	1x35	75	77	620	rubber MKK
Workshop	1	2x6	25	30	66	rubber MK

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

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Heaters H 1 amidships	1	2x50		100	310	rubber	MK
" power aft	1	2x25		63	90	rubber	MK
Galley aft	1	2x50		100	80	rubber	MK
Wireless	1	2x16		50	330	rubber	MKK
Navigation lights	1	2x4		15	330	rubber	MK
Radar	1	2x10		35	310	rubber	MK
Telephone	1	2x2,5		15	140	rubber	MKK
Heaters H 2 amidships	1	2x50		100	320	rubber	MK
Heaters H 3 "	1	1x70		123	320	rubber	MKK

ALL IMPORTANT MOTORS TO BE ENUMERATED.

No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULATION.	PROTECTIVE COVERING.
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
C. W. & L. O. pump I	35	1	2x120	160	177	35	rubber	MK
" " " II	35	1	2x120	160	177	35	rubber	MK
Rudder plant	22	1	2x50	100	100	50	rubber	MKK
Ballast pump	7,5	1	2x10	35	38	44	rubber	MK
Bilge and sanitary pump	8,5	1	2x16	50	50	44	rubber	MKK
Fuel oil transfer pump	7,5	1	2x10	35	38	35	rubber	MK
Compressor cooler	4,8	1	2x6	25	30	20	rubber	MK
Freshwater pump	3,5	1	2x4	20	22	28	rubber	MK
Sanitary pump	3,5	1	2x4	20	22	28	rubber	MK
Turning gear portside	7,5	1	2x10	35	38	16	rubber	MK
" " stbd."	7,5	1	2x10	35	38	16	rubber	MK
Oil separator	4,5	1	2x6	25	28	26	rubber	MKK
"	4,5	1	2x6	25	28	30	rubber	MKK
"	4,5	1	2x6	25	28	34	rubber	MKK
Hot water circulating pump	1,1	1	2x2,5	10	16	15	rubber	MKK
Cooling water pump f. Refrig. pl.	1,4	1	2x1,5	10	16	16	rubber	MK
Motor generator I	28	1	1x70	100	123	83	rubber	MKK
" " II	28	1	1x70	100	123	83	rubber	MKK

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.

HOWALD SWERKE
Aktiengesellschaft
WERK KIEL

Electrical Contractors.

Date

COMPASSES.

Have the compasses been adjusted under working conditions.

HOWALD SWERKE
Aktiengesellschaft
WERK KIEL

Builder's Signature.

Date

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

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

Plans. Are approved plans forwarded herewith... If not, state date of approval.

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

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

The quality of workmanship is good, and the installation will, in my opinion, be eligible for the reclassification as contemplated when lead sheathed cables are fitted as required by the Rules.

Total Capacity of Generators... 380 Kilowatts.

The amount of Fee ...	£	:	:	When applied for,
				19
				When received,
Travelling Expenses (if any) £		:	:	19

Surveyor to Lloyd's Register of Shipping.

Committee's Minute.

FRI 10 FEB 1950

Assigned.