

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

15 NOV 1949

Date of writing Report 27th Oct. 1949 When handed in at Local Office 19 Port of K I E L

No. in Survey held at K I E L Date, First Survey Last Survey 19
eg. Book. (No. of Visits)

2050 on the "SIREFJELL" ex "Picardie" ex "Kollgrim" Tons { Gross 84.77
Net

Built at Gothenburg By whom built Eriksberg M.V. Aktiebol. Yard No. When built 1936

Owners Olav Ringdahl Port belonging to Oslo

Installation fitted by Siemens-Schuckertwerke When fitted 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. no Radar yes

Plans, have they been submitted and approved yes System of Distribution D.C. Voltage of Lighting 110 V

Feating 220 V Power 220 V D.C. or A.C., Lighting - Power - 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 1 no

Generators, are they compound wound 3 yes, and level compounded under working conditions yes

If not compound wound state distance between generators 1' and from switchboard 10' Are the generators arranged to run in parallel 2 comp. gen. are shunt field regulators provided yes Is the compound winding connected to the negative or positive pole negativ only

Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing previously 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 port forward and tweendeck

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 portside forward, tweendeck for steam generator

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 and 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 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 see drawings automatic switch and breaker

Is the switch and fuse gear (or circuit breakers) for each outgoing circuit see drawings knife switches type Pacco

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 7

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 with filament lamps

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

Type of fuses Siemens, are all fuses labelled yes If circuit breakers are provided for the generators, at what load do they operate 450 A and 500 A, and at what current do the reversed current protective devices operate 80 A

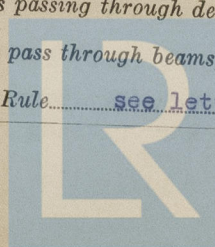
Control Boxes, Section Boards and Distribution Boards, is the construction as per Rule yes

Are they insulated and protected as per Rule see letter, if otherwise than as per Rule are they of an Approved Type see letter

Is maximum fall of pressure between bus bars and any point under maximum load 4.5% 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 and sealed at the ends - Are all the cable runs in accessible positions, not exposed to drip or accumulation of water or oil, temperatures or risk of mechanical damage yes, are any cables laid under machines or floorplates yes, if so, are they adequately protected conduit Are cables in machinery spaces, galleys, laundries, etc., lead covered see letter or run in conduit no

Are the "HR" type - State how the cables are supported or protected clips and trays

Are all lead sheaths, armouring and conduits effectually bonded and earthed yes Are all cables passing through decks and watertight glands provided with deck tubes or watertight glands yes, where unarmoured cables pass through beams, etc., are the holes properly bushed yes Refrigerated chambers, are the cables and fittings as per Rule see letter

004727-004735-0067 1/2
0047400-6247400

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

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 100 Ah (2 off)

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 none

if so, how are they protected gastight fittings and cables in conduit (except speed indicator) and where are the controlling switches fitted on lower bridge Are all fittings suitably ventilated yes

Searchlight Lamps, No. of 4 whether fixed or portable fixed are they of the carbon arc or of the filament type filament

Heating and Cooking, is the general construction as per Rule yes are the frames effectually earthed yes are heaters in 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 no electric pumps fitted Have motors of 100 BHP and over been inspected by the Surveyors during manufacture and testing no

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 no

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 all fuses of an Approved Cartridge Type yes make of fuse Siemens Are the fittings for pumps in engine room, 'tween deck spaces, etc., in accordance with the special requirements for such ships yes Are the cables lead covered as per Rule see 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.	TYPE.	MAKER.
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.			
MAIN	B.E.C.	100	230	435	500	Diesel	"	Bohn & Kähler
		ASEA	82	230	373	400			
		ASEA	82	230	373	400			
EMERGENCY (steam)			30	230	136	750	steam eng.		Bohn & Kähler
ROTARY TRANSFORMER		STILL	20	115	150	1450			

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. mm.	In the Circuit.	Rule.			
MAIN GENERATOR 1.	82	3	120 sqmm	373	530	56	rubber	MKK
" " EQUALISER		1	185 "		237	28		MKK
" " 3	82	3	120 "	373	530	180	rubber	MKK
" " equaliser			185 "		237	90		MKK
" " 2	100	3	120 "	435	530	73	rubber	MKK
EMERGENCY GENERATOR steam	30	1	95 "	136	150	55	rubber	MKK
ROTARY TRANSFORMER: MOTOR	24	1	95 "	126	123	34	rubber	
" " GENERATOR	20	1	150 "	150	150	34	rubber	MKK

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

DESCRIPTION.								
Wireless station	1	16		49	295	rubber	MK	
Distribution heating H 1	1	70		123	555	"	MKK	
" " H 2	1	70		123	555	"	MKK	
" lighting L 1	1	25		63	525	"	MKK	
" " L 2	1	35		77	525	"	MK	
" " L 3	1	10		38	66	"	MKK	
" " L 4	1	10		38	50	"	MKK	
" " L 5	1	10		38	73	"	MKK	
" " L 6	1	10		38	100	"	MKK	
" power K 1	1	35 sqmm		77	555	"	MK	
" power (aft) K 2	1	25 "		63	106	"	MKK	
" power (lavatory)	1	70 "		123	166	"	MKK	
" power workshop	1	10 "		38	20	"	MK	
" power galley	1	50 "		100	200	"	MKK	
" " for navigation lights	1	4		22	310	"	MKK	
" " 24 V midship	1	4		22	280	"	MKK	

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. mm.	In the Circuit.	Rule.			
Supply for Radar plant	1	10		38	283	rubber	MKK
Searchlight	1	25		63	900	"	MKK
Lighting circuits	1	1,5	max 8	9		"	MK and MKK
High power lamps after mast	1	2,5	1	16	193	"	MK
" " fore mast	1	1,5	9	9	166	"	MK
Lighting pumproom forward	1	1,5	5	9	183	"	MK
Lighting pumproom aft	1	1,5	5	9	53	"	MK
Car heater	1	50	82	100	632	"	MKK
Shore connection 220 V	1	95	14,5	150	214	"	MK
Shore connection 110 V	1	95	14,5	150	180	"	MK
Connection steam generator-main switchbd.	1	95	14,5	150	153	"	MK
Circuits for navigation lights	1	1,5	0,4	9	900	"	MK
Plug sockets of masts	1	1,5		9	300	"	MK

ALL IMPORTANT MOTORS TO BE ENUMERATED.		MOTOR CABLES.							
No.	B.H.P.								
Cooling water pump (freshwater)	27	1	70	108	123	165	rubber	MKK	
Cooling water and lub. pump	55	1	150	203	205	130	"	MKK	
" " " "	55	1	150	203	205	130	rubber	MKK	
Ballast pump	17	1	35	68,5	77	83	"	MK	
Oil pump	7,5	1	10	30,5	38	50	"	MK	
Oil separator port	9,5	1	10	38,4	38	60	"	MKK	
Turning gear	7,5	1	10	30,5	38	105	"	MKK	
Oil separator stbd.	9,5	1	10	38,4	38	120	"	MKK	
" " "	9,5	1	10	38,4	38	120	"	MKK	
Cooling water pump f. cooling plt.	2,2	1	2,5	9,3	16	115	"	MK	
Large and sanitary pump	7,5	1	10	30,5	38	133	"	MK	
Sanitary pump 1	3,4	1	6	14,2	30	120	"	MKK	
Sanitary pump 2	3,4	1	6	14,2	30	120	"	MKK	
Refrigerator compressor cooler	6,8	1	6	27,7	30	126	"	MKK	
Cooling water pump f. oil	2,2	1	2,5	9,3	16	23	"	MK	
Condenser auxiliary Diesel	4,8	1	4	20,0	22	26	"	MK	
Cooling water pump aux. Diesel	27	1	70	108	100	30	"	MKK	
Fresh water cooling pump (emerg.)	12kw	1	25	54,0	63	94	"	MKK	
Oil heater portside	12 "	1	25	54,0	63	146	"	MKK	
Circulating heater stbd.	9 "	1	25	41,0	63	253	"	MKK	
" " "	6,8	1	16	55,0	49	67	"	MK	
Mag lifting gear	25	1	50	96,0	100	292	"	MK	
Turning gear									

Note: See Wiring Diagram No. 491103 accompanying Gothenburg Rpt. No. 17/11 for particulars of type and size of cable replacing those reported herein.

Sr.
16.1.50.

The foregoing is a correct description.

Electrical Contractors.

Date 3/11/49

Have the compasses been adjusted under working conditions.

...Builder's Signature.

Date.

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

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.....294.....Kilowatts.

The amount of Fee

£ 100

10

When applied for,

.....19.

When received,

Travelling Expenses (if any) £

Committee's Minute

Assigned

2m.9.46.—Transfer. (MADE AND PRINTED IN ENGLAND.)

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

Surveyor to Lloyd's Register of Shipping.

FBI 24 FEB 1950

See minute on

Vol. 5

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Foundation