

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

No. 391

Writing Report 3rd May 1952 When handed in at Local Office 1952 Received at London Office 14 JUN 1952
Survey held at Bremen/Vegesack Date, First Survey 22nd October 51 Last Survey 9th April 1952
(No. of Visits 20)
Tons Gross 11083 Net -
When built 4.52
By whom built Bremen Vulkan Yard No. 816
Port of Bremen
Port belonging to Göteborg
Fitted by Allgemeine Elektricitäts-Gesellschaft, Bremen When fitted 4.52
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
Have they been submitted and approved. yes System of Distribution 2 wire Voltage of Lighting 110 V
Power 220 V D.C. Lighting DC Power DC If A.C. state frequency -
Has the governing been found as per Rule when full load is thrown on and off. yes Are turbine emergency governors fitted
Generators, are they compound wound. yes, and level compounded under working conditions. yes
Compound wound state distance between generators. - and from switchboard. - Are the generators arranged to run
Are shunt field regulators provided. yes Is the compound winding connected to the negative or positive pole
Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing. yes Have certificates of
machines under 100 kw. been supplied. yes and the results found as per Rule. yes
of Generators. engine room bottom platform, port side forward and aft and starboard side forward
Ventilation in way of generators satisfactory. yes are they clear of inflammable material and protected from mechanical injury and
from water, steam and oil. yes Switchboards, where are main switchboards placed. engine room
Side, main board, first platform level above engine-room plates and aux. board second platform above
in accessible positions, free from inflammable gases and acid fumes and protected from mechanical injury and damage from water,
and oil. yes, what insulation is used for the panels. dead front, Pertinax mounting, if of synthetic insulating
is it an Approved Type. yes, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as
Is the construction as per Rule, including locking of screws and nuts. yes Description of Main Switchgear
generator and arrangement of equaliser switches. 2 pole circuit breakers, third pole interlocked for equalizer
switch and fuse gear (or circuit breakers) for each outgoing circuit. double poles switches and fuses on each insulated
partments containing switchboards composed of fire-resisting material or lined as per Rule. yes Instruments on main switchboard. 9
voltmeters. - synchronising devices. For compound machines in parallel are the ammeters and reversed current
devices connected on the pole opposite to the equaliser connection. yes Earth Testing, state means provided. " "
Circuit Breakers and Fuses, are they as per Rule. yes, are the fuses an Approved Type. yes "
Fuses. AEG, are all fuses labelled. yes If circuit breakers are provided for the generators, at what
do they operate. 815 Amps, and at what current do the reversed current protective devices operate. 95 Amps.
Section Boards and Distribution Boards, is the construction as per Rule. yes
are they insulated and protected as per Rule. yes, if otherwise than as per Rule are they of an Approved Type. -
Minimum fall of pressure between bus bars and any point under maximum load. 6 Volts, are the ends of all cables having a sectional
area of 0.1 square inch and above provided with soldering sockets. yes Are all paper insulated and varnished cambric insulated
at the ends. none 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
protected. yes Are cables in machinery spaces, galleys, laundries, etc., lead covered. yes or run in conduit. "
"HR" type. State how the cables are supported or protected. Supported by cable racks and clips
Cables spaced and protected where necessary by sheet iron plates. Cables to fore ship supported in cable
with expansion bends, and clips spaced in accordance with Rule requirements, cables protected "
the weather,
of sheaths, armoring and conduits effectually bonded and earthed. yes Are all cables passing through decks and watertight
provided with deck tubes or watertight glands. yes, where unarmoured cables pass through beams, etc., are the holes
bushed. yes Refrigerated chambers, are the cables and fittings as per Rule. yes

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

None

Navigation Lamps, are they separately wired.....yes..... controlled by separate double pole switches and fuses.....yes..... Are the switches

a position accessible only to the officers on watch.....yes....., is an automatic indicator fitted.....yes..... Is an alternative supply provided

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

state battery capacity in ampere hours.....24 Volt 32 Amp./hrs.

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

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.....flame proof and strong wire guards.....

and where are the controlling switches fitted.....bridge house..... Are all fittings suitably ventilated.....

Searchlight Lamps, No. of.....2....., whether fixed or portable.....1 and 1....., are they of the carbon arc or of the filament type.....fil

Heating and Cooking, is the general construction as per Rule.....yes....., are the frames effectually earthed.....yes....., are h

accommodation of the convection type.....Motors, are all motors constructed and installed as per Rule and placed in wa

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

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

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

Rule.....Ships carrying Oil having a Flash Point less than 150° F. Have all the special requirements of the Rules for such

complied with.....yes....., are all fuses of an Approved Cartridge Type.....yes....., make of fuse.....Siemens..... Are the fitting

rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships.....yes..... Are the cables lead covered as per R

E.S.D., if fitted state maker.....Atlas Werke A.G..... location of transmitter.....Frame Nos.158/9..... and receiver.....Frame Nos.15

Spare Gear, if the vessels 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.	MAKE
			Kilowatts per Generator.	Volts.	Ampères.	Revs. per Min.			
MAIN ...	3	AEI	150	230	652	450	Diesel	MAN/Bremer	U
	1	H.Still	35	230	152	600	Steam-E	Bohn&Kähler	
EMERGENCY ...									
ROTARY TRANSFORMER	2	AEI	45	115	390	1450	-		

GENERATOR CABLES.

DESCRIPTION.	KILOWATTS.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TION.	PROTECTIVE
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
MAIN GENERATOR ... I.	150	3	300	652	687	36	rubber	metal brai
" " EQUALISER ... II.	150	3	150	326	441	36	"	"
" " " III.	150	3	300	652	687	110	"	"
" " " IV.	150	3	150	326	441	110	"	"
" " " V.	150	3	300	652	687	210	"	"
" " " VI.	150	3	150	326	441	210	"	"
steam GENERATOR ...	35	1	185	152	169	152	"	"
ROTARY TRANSFORMER: MOTOR	52	2	150	258	294	193	"	"
" " GENERATOR...	45	2	240	390	396	110	"	"

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

DESCRIPTION.		CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TION.	PROTECTIVE
		No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Distribution board I lighting		1	70	80	89	680	rubber	Metal
" " II "		1	35	60	77	112	"	"
" " III "		1	35	60	77	96	"	"
" " IV "		1	120	160	175	680	"	"
" " V "		1	50	100	100	224	"	"
" " VI "		1	50	100	100	146	"	"
" " Navigation lights		1	2.5	2.7	13	780	"	"
" " I - 220 V		1	25	60	63	640	"	"
" " II - Fans		1	16	50	50	184	"	"
" " III - Heating		1	35	80	80	310	"	"

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

DESCRIPTION.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TION.	PROTECTIVE COVERING.
	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
Distribution Board IV heat & fans	1	35	80	80	640	rubber	metal braided
" VII refig. plant	1	16	35	55	310	"	"
" VIII workshop	1	16	35	55	118	"	"
" Purifier	2	150	300	300	138	"	"

MOTOR CABLES.

IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	CONDUCTORS.		MAXIMUM CURRENT IN AMPERES.		APPROX. LENGTH (lead plus return feet).	INSULA-TION.	PROTECTIVE
			No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.			
water pump	3	55	2	95	213	218	170	rubber	metal braided
pump	2	16	1	70	63	89	79	"	"
transfer pump	1	14	1	50	55	72	210	"	"
water pump	1	2.5	1	4	10	15	195	"	"
er pump	1	2.5	1	4	10	15	195	"	"
circ. pump	2	2.3	1	4	10	15	215	"	"
gear	1	16	1	35	63	78	124	"	"
pump	1	5	1	6	21	21	127	"	"
room fan	1	6.5	1	16	28	35	190	"	"
room fan	1	3	1	4	13	15	158	"	"
mp	1	20	1	70	79	89	230	"	"
cool. pump	1	14	1	50	56	72	79	"	"
gear	2	17	1	35	70	78	90	"	"

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.

AEG SCHIFFBAU HAMBURG
BETRIEB VEGESACK

Electrical Contractors.

Date 30/5/1952

COMPASSES.

Have the compasses been adjusted under working conditions..... **yes**

**Bremer Vulkan
Schiffbau und Maschinenfabrik
Bremen-Vegesack**

Builder's Signature.

Date 3. VI. 52

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

Is this installation a duplicate of a previous case. yes If so, state name of vessel. "DAGMAR SALEN" Pl. 355

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

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.)

The electrical equipment of this vessel has been installed under special survey in accordance with the approved plans and the Secretary's letters. The material and workmanship are good. On completion the equipment was tested under working conditions and found satisfactory. This equipment is in my opinion suitable for a classed vessel.

[illegible]

Total Capacity of Generators.....485 Kilowatts.

The amount of Fee ... **DM 2.140.-** : When applied for,

When received,

Travelling Expenses (if any) £ - : -

Surveyor to Lloyd's Register of Shipping.

Committee's Minute.

TUES. 15 JUL 1957

Assigned

See F.F. mch 24/8