

Rpt. 13.

No. 968^c

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)
Received at London Office

14 JUN 1954

Date of writing Report 26-5-1954 When handed in at Local Office ✓ 1954 Port of Groningen

No. in Survey held at Waterhuizen Date, First Survey 2-4-54 Last Survey 22-5-1954
Reg. Book. (No. of Visits 7)

on the "GRANSBERGEN" Tons { Gross 498.41
Net 317.31

Built at Waterhuizen By whom built Abu Qla & Zijnen Yard No. 929 When built 1954

Owners M. Huiskamp Scheep Ma Port belonging to Rotterdam

Installation fitted by Messrs. Herman & Peels When fitted 1954

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

Plans, have they been submitted and approved yes System of Distribution 2 wire insulated Voltage of Lighting 110

Heating no Power no D.C. or A.C., Lighting DC Power DC 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 no, and level compounded under working conditions ✓

Are the generators arranged to run in parallel no Is the compound winding connected to the negative or positive pole ✓

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing ✓ Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule yes Position of Generators 2nd floor level

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 2nd floor level

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 2P 2T switch and 2P fuses

and the switch and fuse gear (or circuit breakers) for each outgoing circuit 2P switch and 2P fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 2 ammeters, 1 voltmeters, ✓ synchronising devices. For compound machines in parallel are the ammeters and reverse current protection devices connected on the pole opposite to the equaliser connection ✓ Earth Testing, state means provided Earth indicating lamps Preference Tripping, state if provided no, and tested ✓

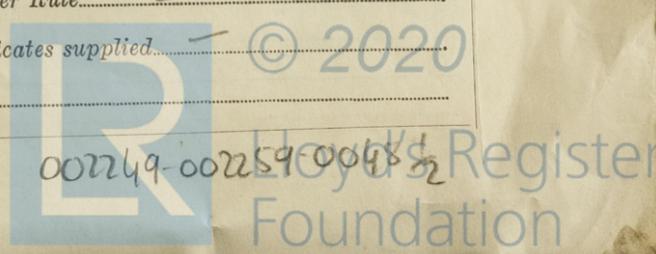
Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes (Hera type) make of fuses Weber & Hammer, are all fuses labelled yes If circuit breakers are provided for the generators, at what overload do they operate ✓, and at what current do the reverse current protective devices operate ✓ 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 2.67 volts. Are all paper insulated and varnished cambric insulated cables sealed at the ends yes

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 State type of cables (if in conduit this should also be stated) in machinery spaces H.B. type, galleys H.B. type and laundries ✓ State how the cables are supported or protected Mesh space: Slipped to perforated plating on surface - Deck: Slipped to surface on wood grounds - Foreship: In conduit on weather deck

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 ✓

Have refrigeration fan motors been constructed under survey ✓ and test certificates supplied ✓

Are the motors accessible for maintenance at all times ✓



Alternative Lighting, are the groups of lights in the engine and boiler rooms arranged as per Rule yes Emergency Supply, state position Main battery placed above deep water line supplied by board automatically in case of
 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, fitted and adequately ventilated as per Rule yes state battery capacity in ampere hours 190 Where required to do so does it comply with 1948 International Convention yes
 Lighting, is fluorescent lighting fitted no If so, state nominal lamp voltage yes and compartments where lamps are fitted yes
 Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, weatherproof yes
 Searchlights, No. of 1, whether fixed or portable portable, 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 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 yes
 Have certificates of test for motors under 100 BHP intended for essential sea services been supplied and the results found as per Rule yes
 Lightning Conductors, where required are they fitted as per Rule yes
 Ships carrying Oil having a Flash Point of 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 yes Are the fittings for pump rooms, 'tween deck spaces, etc., in accordance with the special requirements for such ships yes
 E.S.D., if fitted state maker Wheeler Hughes location of transmitter and receiver frames 31-32
 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	MAKE.	RATED AT			TYPE.	PRIME MOVER.	MAKER.
			Kw. per Generator.	Volts.	Ampres.			
MAIN	1	Wansea 552373	7	110	63.5	1029/200 main shaft	Wicksteed	
EMERGENCY ROTARY TRANSFORMER	1	Wansea 552374	7	110	63.5	1009/200 dial	Baker	

GENERATOR CABLES.

DESCRIPTION.	No. of	Kw.	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.			
MAIN GENERATOR	main shaft	1	7	35	63.5	70	35	VIA	HR type
"	EQUALISER	1	7	35	63.5	70	26	"	"
EMERGENCY GENERATOR									
ROTARY TRANSFORMER: MOTOR									
"	GENERATOR								

MAIN DISTRIBUTION CABLES (to Auxiliary Switchboards, etc.).

DESCRIPTION.	No. in Parallel per Pole.	Sectional Area or No. and Dia. of Strands. Sq. ins. or sq. mm.	In the Circuit.	Rule.	APPROX. LENGTH (lead plus return feet).	INSULA-TION.	PROTECTIVE COVERING.
DBB Accom. Lighting	1	6	12	29	16	VIA	HR type
DBB Accom. Lighting	1	4	8	22.5	36	"	"
DBB Wireless Equipment	1	4	12	22.5	32	"	"
DBB Navigation Lighting	1	2.5	2.5	15.5	22	"	"
DBB Ventilators	1	2.5	7.3	15.5	36	"	"

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

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.			
Supplied from main switchboard:							
DB Lighting	1	1.5	3.65	9.5	60	VIA	HR type
Forward Lighting	1	2.5	2.2	15.5	160	"	"
DB Lighting	1	1.5	3.65	9.5	54	"	"
Mechanical fitter	1	6	25	29	36	"	"

MOTOR CABLES.

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	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.			
Supplied from main switchboard:									
DB Keyhole pump	0.5	1	1.5	4.5	9.5	22	VIA	HR type	
DB	0.5	1	1.5	4.5	9.5	30	"	"	
DB transfer pump	1.5	1	2.5	13.4	15.5	24	"	"	
Supplied from DBB Accom. Lighting:									
Domestic refrigerator	1/2	1	1.5	3.7	9.5	32	"	"	
Supplied from DBB Ventilators:									
San Central Heating	40W	1	1.5	0.4	9.5	30	VIA	HR type	
Head Hold DB	165W	1	1.5	1.5	9.5	100	"	"	
" " DB	165W	1	1.5	1.5	9.5	104	"	"	
Head DB DB	165W	1	1.5	1.5	9.5	18	"	"	
" " DB	165W	1	1.5	1.5	9.5	14	"	"	

NOTE.—Use Rpt. 43 Continuation Sheet if the above space is insufficient.



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.

HERMAN G. EEKELS N.V.

Electrical Contractors. Date 3-6-54

COMPASSES.

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

SCHEEPSWERYEN GEBR. VAN DIEPEN N.V.

[Signature] Builder's Signature. Date 3-6-54

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 Eibergen

Plans. Are approved plans forwarded herewith no If not, state date of approval 20-6-53

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

General Remarks. (State quality of workmanship and materials, opinions as to class, etc.).....

The electrical equipment of this vessel has been installed under special survey in accordance with the Society's Rules and Regulations and the approved plans or equivalent thereof. The materials used are of a good quality and the design and workmanship are good. On completion the equipment has been tried out under full working conditions and found satisfactory. In my opinion the equipment is suitable for a class vessel.

*Noted J.S.
21/7/54*

Total Capacity of Generators 14 Kilowatts.

The amount of Fee ...	<u>£. 154.-</u>	:	When applied for,
			<u>5-6-1954</u>
Travelling Expenses (if any) £	<u>55.-</u>	:	When received,
			<u>19</u>

[Signature]
Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....

Assigned See Rpt. 4 & 5

