

Rpt. 13.

No. 941^e

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 1-4-1954 When handed in at Local Office 19 Port of Frankfurt

No. in Survey held at Westerhuizen Date, First Survey 10-2-54 Last Survey 26-3-1954

Reg. Book. on the m. "EIBERGEN" Tons { Gross... 498.48 Net... 317.31

Built at Westerhuizen By whom built de Sch. Geb. & Dijkm. N.V. Yard No. 928 When built 1954

Owners N.V. Zuid Schepen Mij. Port belonging to Rotterdam

Installation fitted by Meer Herman G. Pothels N.V. 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 no

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 no Generators, are they compound wound no, and level compounded under working conditions no

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

Have machines 100 kw. and over been inspected by the Surveyors during manufacture and testing yes Have certificates of test for machines under 100 kw. been supplied and the results found as per Rule yes Position of Generators E.P. 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 E.P. 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 no, if of semi-insulating material (slate or marble) are all conducting parts insulated therefrom as per Rule no 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 DDSF with one DP fuse

and the switch and fuse gear (or circuit breakers) for each outgoing circuit DD switch and DP fuses

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

Switches, Circuit Breakers and Fuses, are they as per Rule yes, are the fuses an Approved Type yes (Nema) make of fuses Wider & Laumger, are all fuses labelled yes If circuit breakers are provided for the generators, at what overload do they operate no, and at what current do the reverse current protective devices operate no

Cables, are they insulated and protected as per Rule yes, if otherwise than as per Rule are they of an Approved Type no, state maximum fall of pressure between bus bars and any point under maximum load 5.6% 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 no, if so, are they adequately protected no State type of cables (if in conduit this should also be stated) in machinery spaces RRR type, galleys RRR type and laundries no State how the cables are supported or protected Mask. Space: Clipped to perforated plating on surface - Deck Space: Clipped to surface or wood grounds - Outside: In conduit on weatherdeck

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 no

Have refrigeration fan motors been constructed under survey no and test certificates supplied no Are the motors accessible for maintenance at all times no

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 seawater line - supplied on board automatically in case of failing generator

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. Are all cables lead covered as per Rule YES

E.S.D., if fitted state maker Allen Hughes location of transmitter and receiver A.S. frame 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 | MAKER. | RATED AT | | | | TYPE. | PRIME MOVER. |
|------------------------------|--------|--------------|--------------------|--------|----------|----------------|------------|--------------|
| | | | Kw. per Generator. | Volts. | Ampères. | Revs. per Min. | | |
| MAIN | 1 | Kanca 548029 | 7 | 110 | 63.5 | 1000/1100 | main shaft | Wickson |
| | 1 | " 548031 | 7 | 110 | 63.5 | " | diesel | Ruster |
| EMERGENCY ROTARY TRANSFORMER | | | | | | | | |

GENERATOR CABLES.

| DESCRIPTION. | No. of | Fw. | 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 main shaft | 1 | 7 | 1 | 35 | 63.5 | 78 | 33 | VIR | HA type |
| " " EQUALISER | | | | | | | | | |
| " " Diesel | 1 | 7 | 1 | 35 | 63.5 | 78 | 26 | " | " |
| EMERGENCY GENERATOR | | | | | | | | | |
| ROTARY TRANSFORMER: MOTOR | | | | | | | | | |
| " " GENERATOR | | | | | | | | | |

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

| DESCRIPTION. | No. of | Fw. | No. in Parallel per Pole. | 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. |
|----------------------------|--------|-----|---------------------------|--|-----------------------------|---|-------------|----------------------|
| D.F.B. Accom. Lighting | 1 | | 6 | 12 | 29 | 16 | VIR | HA type |
| D.F.B. Accom. Lighting | 1 | | 4 | 8.2 | 22.5 | 36 | " | " |
| D.F.B. Winches Equipment | 1 | | 4 | 12 | 22.5 | 32 | " | " |
| D.F.B. Navigation Lighting | 1 | | 2.5 | 2.15 | 15.5 | 28 | " | " |
| D.F.A. Ventilator | 1 | | 2.5 | 7.5 | 15.5 | 26 | " | " |

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

| 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. | | | |
| BA Lighting | 1 | 1.5 | 2.65 | 9.5 | 60 | VIR | HA type |
| Emergency Lighting | 1 | 2.5 | 8.2 | 15.5 | 160 | " | " |
| Weathering Lighting | 1 | 2.5 | 3.5 | 15.5 | 36 | " | " |
| BA Lighting | 1 | 1.5 | 2.65 | 9.5 | 54 | " | " |
| Distributor fuses | 1 | 6 | 25 | 29 | 36 | " | " |

Supplied from main sw. board.

MOTOR CABLES.

| ALL IMPORTANT MOTORS TO BE ENUMERATED. | No. | B.H.P. | No. in Parallel per Pole. | 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. |
|--|-------|--------|---------------------------|--|-----------------------------|---|-------------|----------------------|
| SW Hydrofor pump | 1/2 | 1 | 1.5 | 4.5 | 9.5 | 22 | VIR | HA type |
| FW " " " | 1/2 | 1 | 1.5 | 4.5 | 9.5 | 20 | " | " |
| DE Transfer pump | 1/2 | 1 | 2.5 | 12.4 | 15.5 | 24 | " | " |
| Supplies from D.F.B. Accom. Lighting | | | | | | | | |
| Domestic refrigerator | 1/3 | 1 | 1.5 | 3.7 | 9.5 | 22 | " | " |
| Supplies from D.F.B. Ventilator | | | | | | | | |
| Fan gallop pump | 30 W | 1 | 1.5 | 2.3 | 9.5 | 36 | " | " |
| Fan under heating | 40 W | 1 | 1.5 | 2.4 | 9.5 | 30 | " | " |
| Wind 2B Port | 165 W | 1 | 1.5 | 4.5 | 9.5 | 14 | " | " |
| " " 3B | 165 W | 1 | 1.5 | 4.5 | 9.5 | 18 | " | " |
| Wind hold Port | 165 W | 1 | 1.5 | 1.5 | 9.5 | 104 | " | " |
| " " 3B | 165 W | 1 | 1.5 | 1.5 | 9.5 | 100 | " | " |

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
 HERMAN G. EEKELS N.V. Electrical Contractors. Date 7 4 54.

COMPASSES.

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

SCHEEPSWERVEN GEBR. VAN DIEPEN N.V.
J. M. van Diepen Builder's Signature. Date 1 April '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 *Abbege, Beekbergen, Dordrecht*

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 this equipment is suitable for a class vessel.

*Noted J.S.
 12/5/54*

Total Capacity of Generators *14* Kilowatts.

The amount of Fee ... *£ 154.-* : When applied for, *19 4 1954*

Travelling Expenses (if any) *£ 5.2* : When received, *19*

J. M. van Diepen
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRIDAY 14 MAY 1954*

Assigned *See Rpt. 4c*

27.4.54

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2m. 8.50.—Transfer. (MADE AND PRINTED IN ENGLAND.)
 (The Surveyors are requested not to write on or below the space for Committee's Minutes.)