

Rpt. 13.

No. 35681^d

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

26 JAN 1953

Date of writing Report 16-1 1953 When handed in at Local Office 18-1 1953 Port of Rotterdam

No. in Survey held at Rotterdam Date, First Survey 24-3-51 Last Survey 24-10-1952
Reg. Book. (No. of Visits 13)

on the Tw. Sc. SUCTION HOPPER DREDGER "MATOLA" Tons Gross 1158.76 Net 530.21

Built at SCHIEDAM By whom built N.V. WERF GUSTO Yard No. 10167 When built 1952

Owners MINISTERIO DAS COLONIAS - DEREKAD - Port belonging to LOURENCO MARQUES
GENERAL DE FOMENTO COLONIAL

Installation fitted by N.V. HANDELS COMPAGNIE, ROTTERDAM When fitted 1952

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

Plans, have they been submitted and approved yes System of Distribution two wire insulated Voltage of Lighting 220

Heating 220 Power 220 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 yes Are turbine emergency governors fitted

with a trip switch - Generators, are they compound wound yes, and level compounded under working conditions yes

Are the generators arranged to run in parallel yes 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 yes Have certificates of test for machines

under 100 kw. been supplied and the results found as per Rule yes Position of Generators ER floor level bldg & Port side

resp.

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 ER floor level against foreward,

bulkhead

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 switchboard, 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 185 KW generators: 3-pole C.B. / one pole used for equaliser /

with O/C protection in twin poles and R/C protection in + pole. C.B. equipped with no volt coil and P/R

30 KW generator: double pole C.B. with O/C protection in twin poles. 5 KW generator: D.P. fuses & D.P. DT switch

and the switch and fuse gear (or circuit breakers) for each outgoing circuit Cutter motor, suction motor and power ER: 2-pole

C.B. with O/C protection in each pole Remainder: D.P. switch & D.P. fuses

Are compartments containing switchboards composed of fire-resisting material or lined as per Rule yes Instruments on main switchboard 0

ammeters 4 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 yes Earth Testing, state means provided For each

busbar system earth indicating lamps Preference Tripping, state if provided O/C relay fitted in each Gen. circuit controlled contactor

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

make of fuses GEC & Hazemeyer, are all fuses labelled yes If circuit breakers are provided for the generators, at what

overload do they operate direct acting at 100% overload; time delay 20 sec at 25% overl., and at what current do the reverse current protective

devices operate 185 Amps 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 660 volts. 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 State

type of cables (if in conduit this should also be stated) in machinery spaces MICC & VIR- LC&MWB cable, galleys VIR- LC&MWB cable

and laundries - State how the cables are supported or protected Machinery spaces: MICC & LC-MWB cable

clipped to metal frame work or perforated plating. Accommodation spaces: LC&MWB cable clipped to

wood ground or surface

Are all ^{& copper} 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 -

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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 , state battery capacity in ampere hours Where required to do so does it comply with 1948 International Convention

Lighting, is fluorescent lighting fitted If so, state nominal lamp voltage and compartments where lamps are fitted

Searchlights, No. of one, whether fixed or portable. fixed, are they of the carbon arc or of the filament type. filament type

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

Lightning Conductors, where required are they fitted as per Rule.....

with _____, are all fuses of an Approved Cartridge Type _____, make of fuse _____, Are the fittings for pump _____

E.S.D., if fitted state maker A Has werken Bremen location of transmitter and receiver frame 100-101
 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 ENGINE				PRIME MOVER.				
DESCRIPTION OF GENERATOR.	No. of	MAKER.	RATED AT				TYPE.	MAKER.
			Kw. per Generator.	Volts.	Ampères.	Revs. per Min.		
MAIN ...	2	Verity's Ltd Aston	105	220	240	350	Diesel	NAM (Augsburg)
	1	" " "	30	220	136	1000	"	Russel (Newberg)
	1	Mc Clure	5	220	23	1000	"	Russel (")
EMERGENCY ...								
ROTARY TRANSFORMER								

[illegible][illegible]

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.				
SUPPLIED FROM 105KW DIESEL DRIVEN GENERATORS ONLY.								
Main switchboard								
SB power ER	KL	1	125	300	345	16	MI	CC
SB power ER	KD	1	60	150	225	17		
EITHER FROM 105KW OR 30KW GENERATORS								
Main switchboard								
DFB navigation lighting	NAV	1	25	25	15.5	46	VIR	LC & MWB
DFB lighting nautical instruments	NAV	1	6	35	29	47		
Wireless equipment		1	6	10	24	44		
DFB lighting ER	LB	1	6	8	29	31		
DFB power workshop	KB	1	5	9	50	40	MI	CC
2-oil heaters each 6kw		1	5	27	50	16		
EITHER FROM 105KW OR 30KW OR 5KW GENERATORS								
DFB lighting fore	LE	1	6	6	29	60	VIR	LC & MWB.
DFB " ER.	LC	1	6	4	29	29		
DFB " amid	LD	1	6	11	24	10		
DFB " aft	LA	1	6	7	24	72		
Alt supply nav. lighting		1	25	25	15.5	46		

ALL IMPORTANT MOTORS TO BE ENUMERATED.	No.	B.H.P.	MOTOR CODES.							
FROM 105KW GENERATORS ONLY.										
Main switchboard.										
Cutter motor	200	2	200	135	1100	56	MI	CC		
Suction pipe winch	70	1	125	260	305	80				
Bow winch	40	1	50	140	225	56				
Windlass	24	1	32	94	170	100				
Side winch 5thd	40	1	50	140	225	80				
Side winch Pkt	40	1	50	140	225	160				
Loading pipe winch	65	1	5	24	50	20				
Loading pipe winch	65	1	5	24	50	32				
Steering gear	4	1	5	160	50	36				
SB power ER "KC"										
Gland pump	75	1	0	30	00	12	MI	CC		
Cutter bearing pump	75	1	0	30	00	12				
Water jet pump	22	1	20	03	132	24				
Bilge pump	0	1	0	30	00	16				
Hydraulic pump	25	1	25	95	150	20				
Hydraulic pump	25	1	25	95	150	20				
SB power ER "KD"										
Cooling water pump	6	1	5	26	50	16	MI	CC		
Cooling water pump	0	1	0	32	00	20				
Bunker pump	15	1	10	59	94	10				
Lub. oil pump	6	1	5	26	50	10				
Hydraulic pump HP	4	1	5	17	50	21				
Hydraulic pump HP	4	1	5	17	50	21				
EITHER FROM 105KW OR 30KW GENERATOR										
2 Hydrophor pumps each	2.	1	3.2	0.5	30	44	MI	CC		
Fuel oil separator	0.65	1	3.2	2.05	30	20				
Lub oil separator	0.65	1	3.2	2.05	30	20				
2 Fans ER each	100Watts	1	2.5	7	15.5	30	VIR	LC8NWB		
2 Fans ER each	400 "	1	2.5	2	15.5	30				
Fuel oil transfer pump	4	1	5	17	50	20	MI	CC		
Bilge pump	9	1	0	35.0	00	0				

NOTE.—Use Rpt. 13 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.

HANDELSCOMPAGNIE N.V.
ELECTROTECHNISCHE AFDELING

Electrical Contractors.

Date 12-12-52

COMPASSES.

Have the compasses been adjusted under working conditions. yes

N. V. WERF GUSTO
FIRMA A. F. SMULDERS

Builder's Signature.

Date 12-12-52

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 Verschuve LOHED "Pungué"

Plans. Are approved plans forwarded herewith. no If not, state date of approval. 26-2-52

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 constructed and installed under special survey in conformity with the Society's Rules and Regulations and Secretary's letters and the approved plans or equivalent thereto.

The materials used are of a good quality and the design and workmanship are good. On completion the equipment has been tried under full working conditions and found satisfactory.

This equipment is in my opinion suitable for a classed vessel.

Total Capacity of Generators 405 Kilowatts.

The amount of Fee ... £ 1119

When applied for,

21-1-1953

Travelling Expenses (if any) £ 57 =

When received,

19

H. van Luit
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned



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