

No. 12112

Rpt. 13.

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

Date of writing Report 26 Nov 1930 When handed in at Local Office 19 Port of AMSTERDAM.

No. in Survey held at AMSTERDAM. Date, First Survey 4 July Last Survey 8 Nov 1930
(Number of Visits 1 & 2)

Reg. Book. Single Screw Motor vessel "TABIAN" Tons { Gross 8150.63
Net 4894.69

Built at AMSTERDAM By whom built Nederlandsche Scheeps- Yard No. 203 When built 1930
bouw My

Owners Stoomvaart Maatschappij Nederland Port belonging to AMSTERDAM.

Electric Light Installation fitted by Groeneveld, van der Poll & Co Contract No. When fitted 1930

Is the Vessel fitted for carrying Petroleum in bulk no

System of Distribution Two, one volts, Power 220 volts.

Pressure of supply for Lighting 220 volts, Heating 220 volts, Power Direct & alternating

Direct or Alternating Current, Lighting Direct current

If alternating current system, state frequency of periods per second 50 per second

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yes

Generators, do they comply with the requirements regarding rating yes, are they compound wound yes

are they over compounded 5 per cent. yes, if not compound wound state distance between each generator

Where more than one generator is fitted are they arranged to run in parallel yes, is an adjustable regulating resistance fitted in series with each shunt field yes

Are all terminals accessible, clearly marked, and furnished with sockets yes, are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched yes

Position of Generators Two at 110 & 3 Post in Motor room, are they clear of all inflammable material yes

if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the generators

and , are the generators protected from mechanical injury and damage from water, steam or oil yes

are their axes of rotation fore and aft yes, are the prime movers and their respective generators in metallic contact yes

Earthing, are the bedplates and frames of the generating plant efficiently earthed yes

Main Switch Boards, where placed in engine room

If the generators and main switchboard are not placed in the same compartment, is each generator provided with a fuse on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard yes

Switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes yes

are they protected from mechanical injury and damage from water, steam or oil yes, if situated near unprotected woodwork or other combustible material, state distance of same horizontally from or vertically above the switchboards none and

are they constructed wholly of durable, non-ignitable non-absorbent materials yes, is all insulation of high dielectric strength and of permanently high insulation resistance yes

if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework none

and is the frame effectively earthed yes, Are the fittings as per Rule regarding:— spacing or shielding of live parts

yes, accessibility of all parts yes, absence of fuses on back of board yes, proportion of omnibus bars yes

individual fuses to voltmeter, pilot or earth lamp yes, connections of switches yes

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches double pole handle switch for negative pole & equaliser

Instruments on main switchboard 40 ammeters 275 & 4 voltmeters synchronising device for paralleling purposes

Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system 2 ohmmeters and 4 earth lamps

Switches, Circuit Breakers and Fusible Cut-outs, do these comply with the requirements of the Rules yes

Joint Boxes Section and Distribution Boards, is the construction, protection, insulation, material, and position of these as per rule yes



nel

examined

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Cables: Single, twin, concentric, ^{and} multicore are the cables insulated and protected as per Tables IV or V of the Rules *yes*

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load *lightning 3% power 5%*

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 square inch and above provided with soldering sockets *yes*

Paper Insulated Cables, If cables are paper covered, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound *none*

Cable Runs, are the cables fixed as far as possible in accessible positions not exposed to drip or accumulation of water or oil, or to high temperature from boilers, steam pipes, uplakes or other hot objects, or to avoidable risk of mechanical damage *yes*

Support and Protection of Cables, state how the cables are supported and protected *The armoured cables are supported with galvanised iron clips and lead covered with brass clips & screws.*

If cables are run in wood casings, are the casings and caps secured by screws *yes*, are the cap screws of brass *yes*, are the cables run in separate grooves *yes*. If armoured and lead covered cables are secured by metal clips, are the clips spaced as per Table VIII *yes*

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements *yes*

Joints in Cables, state if any, and how made, insulated, and protected *none made*

Watertight Glands and Deck Tubes, are all cables passing through decks and watertight bulkheads provided with deck tubes or watertight glands *yes*

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are the holes efficiently bushed *yes* state the material of which the bushes are made *lead*

Earthing Connections, state what earthing connections are fitted and their respective sectional areas *are their connections made as per Rule*

Alternative Lighting, are the groups of lights in the propelling machinery space arranged as per Rule *yes*

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven *Emergency lighting on battery, placed in steering room*

Navigation Lamps, are these separately wired *yes*, controlled by separate switch and separate fuses *yes*, are the fuses double pole *yes*, are the switches and fuses grouped in a position accessible only to the officers on watch *yes*

has each navigation lamp an automatic indicator as per Rule *yes*

Secondary Batteries, are they constructed and fitted as per Rule *yes*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight *yes*, are any fittings placed in spaces in which goods are liable to be stacked in close proximity to them; if so, how are they protected *no*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *no*, how are the cables led

where are the controlling switches situated *yes*

Searchlight Lamps, No. of *one*, whether fixed or portable *fixed*, are their fittings as per Rule *yes*

Arc Lamps, other than searchlight lamps, No. of *—*, are their live parts insulated from the frame or case *—*, are their fittings as per Rule *—*

Motors, are their working parts readily accessible *yes*, are the coils self-contained and readily removable for replacement *yes*, are the brushes, brush holders, terminals and lubricating arrangements as per Rule *yes*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *yes*

are they protected from mechanical injury and damage from water, steam or oil *yes*, are their axes of rotation fore and aft *yes*, if situated near unprotected woodwork or other combustible material, are the motors of the totally enclosed, pipe ventilated, forced draught, drip or flame proof type *—*, if not of this type, state distance of the combustible material horizontally or vertically above the motors *—* and *—*

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule *yes*

Lightning Conductors, where lightning conductors are required, are these fitted as per Rule *yes*

Ships carrying Oil having a Flash Point less than 150° F. Have the special requirements of the Rules been complied with regarding switches, joint boxes, section and distribution boards, protection of cables, method of distribution, lead of cables, lights and fittings *—*

If portable lamps for use in dangerous spaces are supplied, are they of a type approved by the Home Office *—*

two armoured by

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Amps.	Revs. per Min.		Fuel Used	Flash Point of Fuel
MAIN	2	180	220	218	320	Diesel Engine	heavy oil above 150° F.	
AUXILIARY	—	—	—	—	—	—	—	
EMERGENCY	—	—	—	—	—	—	—	
ROTARY TRANSFORMER	2	30KV A	110	128	1500	Electric motor	—	

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION	CONDUCTORS		COMPOSITION OF STRAND		TOTAL MAXIMUM CURRENT AMPERES		Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
	No. per Pole	Total Effective Area per Pole Sq. Ins.	No.	Diameter	In Circuit	Rule			
MAIN GENERATOR	2	0.60620	91	0.093	750	760	120	rubber	lead covered & varnished
EQUALISER CONNECTIONS	1	0.60620	91	0.093	200	304	120	"	"
AUXILIARY GENERATOR	—	—	—	—	—	—	—	—	—
EMERGENCY GENERATOR	—	—	—	—	—	—	—	—	—
ROTARY TRANSFORMER MOTOR	1	0.11680	37	0.064	120	130	60	"	"
TRANSFORMER GENERATOR	1	0.03960	14	0.032	46	64	90	"	"
ENGINE ROOM	—	—	—	—	—	—	—	—	—
BOILER ROOM	—	—	—	—	—	—	—	—	—
AUXILIARY SWITCHBOARDS	—	—	—	—	—	—	—	—	—
Heating B.	1	0.07592	19	0.072	95	97	210	"	"
C	1	0.07592	19	0.072	45	97	140	"	"
E	1	0.06000	19	0.064	0	83	390	"	"
General service	1	0.07592	19	0.072	90	97	150	"	"
Navigation	1	0.06000	19	0.064	5	83	60	"	"
ACCOMMODATION LIGHTS	—	—	—	—	—	—	—	—	—
B	1	0.06000	19	0.064	13	83	210	"	"
C	1	0.06000	19	0.064	5	83	140	"	"
D	1	0.00701	7	0.036	0	24	20	"	"
E	1	0.01046	7	0.044	10	24	490	"	"
WIRELESS	1	0.02214	7	0.064	21	46	150	"	"
SEARCHLIGHT	1	0.03960	19	0.052	60	64	120	"	"
MASTHEAD LIGHT	1	0.00322	1	0.064	1	12.9	240	"	"
SIDE LIGHTS	1	0.00322	1	0.064	1	12.9	25	"	"
COMPASS LIGHTS	1	0.00322	1	0.064	1	12.9	15	"	"
POOP LIGHTS	1	0.00322	1	0.064	1	12.9	16	"	"
CARGO LIGHTS	1	0.00322	1	0.064	10	12.9	16	"	"
ARC LAMPS	—	—	—	—	—	—	—	—	—
HEATERS	1	0.00455	7	0.029	15	102	320	"	"

MOTOR CONDUCTORS.

DESCRIPTION	No. of Motors	CONDUCTORS		COMPOSITION OF STRAND		TOTAL MAXIMUM CURRENT AMPERES		Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
		No. Per Pole	Total Effective Area per Pole Sq. Ins.	No.	Diameter	In Circuit	Rule			
BALLAST PUMP	1	1	0.07952	19	0.072	90	97	90	rubber	lead covered & varnished
MAIN BILGE LINE PUMPS	2	1	0.06000	19	0.064	54	83	54	"	"
GENERAL SERVICE PUMP	—	—	—	—	—	—	—	—	—	—
EMERGENCY BILGE PUMP	—	—	—	—	—	—	—	—	—	—
SANITARY PUMP	1	1	0.07592	19	0.072	90	97	90	"	"
CIRC. SEA-WATER PUMPS	2	2	0.19640	37	0.033	300	360	90	"	"
CIRC. FRESH WATER PUMPS	2	1	0.00455	7	0.029	13	102	34	"	"
AIR COMPRESSOR	2	2	0.40640	61	0.093	500	576	140	"	"
FRESH WATER PUMP	2	1	0.01462	7	0.052	31	37	10	"	"
ENGINE TURNING GEAR	1	1	0.03960	19	0.052	50	64	100	"	"
ENGINE REVERSING GEAR	—	—	—	—	—	—	—	—	—	—
LUBRICATING OIL PUMPS	2	1	0.01680	37	0.064	90	130	120	"	"
OIL FUEL TRANSFER PUMP	1	1	0.10090	14	0.033	110	110	210	"	"
WINDLASS	1	1	0.60620	91	0.093	360	384	120	"	"
WINCHES, FORWARD	5	1	0.07592	19	0.072	90	97	120	"	"
Midships	2	1	0.07592	19	0.072	90	97	120	"	"
WINCHES, AFT	4	1	0.07592	19	0.072	90	97	120	"	"
STEERING GEAR—	—	—	—	—	—	—	—	—	—	—
(a) MOTOR GENERATOR	—	—	—	—	—	—	—	—	—	—
(b) MAIN MOTOR	2	1	0.06000	19	0.064	75	83	370	"	"
WORKSHOP MOTOR	1	1	0.0701	7	0.036	17	24	72	"	"
VENTILATING FANS	—	—	—	—	—	—	—	—	—	—
Boiler fan	1	1	0.00415	7	0.029	17	102	36	"	"
Cabstand	2	1	0.19640	37	0.033	170	104	100	"	"
Oil separator	5	1	0.00701	7	0.036	20	24	60	"	"
Boiler feed pump	2	1	0.01462	7	0.052	25	37	60	"	"
Refrigerating pump	1	1	0.03960	19	0.052	42	64	54	"	"
Blow pump	1	1	0.00455	7	0.029	7	102	54	"	"

All Conductors are of annealed copper conforming to British Standard Specification No. 7.

The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules.

The foregoing is a correct description.

ORONEVELD, VAN DER POLL & Co's

Elektrotechnische Fabrik

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass ± 63 feet

Distance between electric generators or motors and steering compass $+ 52$ feet

The nearest cables to the compasses are as follows:—

A cable carrying 0.15 Ampères ± 3 feet from standard compass 3 feet from steering compass.

A cable carrying 0.50 Ampères ± 6 feet from standard compass 18 feet from steering compass.

A cable carrying 0.15 Ampères ± 4 feet from standard compass ± 16 feet from steering compass.

Have the compasses been adjusted with and without the electric installation at work at full power. *yes*

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted

The maximum deviation due to electric currents was found to be *nil* degrees on _____ course in the case of the standard

compass, and _____ degrees on _____ course in the case of the steering compass.

M.V. NEDERLANDSCHE SCHEEPSBOUW-MAATSCHAPPIJ

[Signature]

Builder's Signature.

Date **28 NOV. 1930**

Is this installation a duplicate of a previous case *no* If so, state name of vessel _____

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Insulation has been built in accordance with the rules. workmanship throughout good. Tested under full working condition found working satisfactory.

It is submitted that this vessel is eligible for THE RECORD.

Elec. Dept

[Signature] 2/12/30

Total Capacity of Generators ~~720~~ ⁵⁴⁰ Kilowatts.

The amount of Fee ... *£ 594*

When applied for, *AMP*

19

Travelling Expenses (if any) £

When received, *666*

10.12.30

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

TUE. 9 DEC 1930

Committee's Minute

Assigned



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