

Rpt. 13.

No. 8608 A

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

26 OCT 1942

Received at London Office

Date of writing Report Sept. 7th 1942 When handed in at Local Office

Port of San Francisco

No. in Survey held at San Francisco, California Date, First Survey July 27th Last Survey August 15th 1942
Reg. Book.

(Number of Visits Six)

32213 on the Steel S. S. "SINGKEP"

Tons { Gross 6607
Net 4070

Built at Amsterdam By whom built Nederl. Schps. Maats Yard No. 165 When built 1922

Owners N.V. Stoomv. Maats Nederland Port belonging to Batavia

Electric Light Installation fitted by - Contract No. - When fitted -

Is the Vessel fitted for carrying Petroleum in bulk No

System of Distribution Two Wire

Pressure of supply for Lighting 110 Volts D.C. volts, Heating ✓ volts, Power 110 Volts D.C. volts.

Direct or Alternating Current, Lighting DIRECT CURRENT Power DIRECT CURRENT

If alternating current system, state frequency of periods 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 temperature rise YES, are they compound wound YES

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

Where more than one generator is fitted are they arranged to run in parallel No, is an adjustable regulating resistance fitted in

series with each shunt field YES Have certificates of test results for machines under 100 kw. been submitted and

approved ✓ Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing ✓

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 Are the lubricating arrangements of the generators as per Rule ✓

Position of Generators Fore & Aft. Starboard side of Engine Room, is the ventilation

in way of the generators satisfactory YES 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 No inflammable material near

are the generators protected from mechanical injury and damage from water, steam or oil. YES, are their axes of rotation fore and aft YES

Earthing, are the bedplates and frames of the generating plant efficiently earthed YES are the prime movers and their respective generators

in metallic contact CONNECTED BY STEEL COUPLING Main Switch Boards, where placed APPROX 10 FEET AFT OF GENERATORS IN ENGINE ROOM - STARBOARD AFT

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 No combustible material near 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

is it of an approved type ✓, if semi-insulating material is used, are all conducting parts insulated from the slab with mica or micanite or other

non-hygroscopic insulating material, and the slab similarly insulated from its framework YES, is the non-hygroscopic insulating material of an approved

type ✓, 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, temperature rise of

omnibus bars SAFE TEMPERATURE, individual fuses to voltmeter, pilot or earth lamp YES, are moving parts of switches alive in the

"off" position No are all screws and nuts securing connections effectively locked YES are any fuses fitted on the live side of

switches No Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

No EQUALIZER CONNECTIONS. EACH GENERATOR CAN BE CONNECTED TO DISTRIBUTION SYSTEM A TWO POLE DOUBLE THROUGH

Are turbine driven generators fitted with emergency trip switch as per rule YES Are cupboards or compartments containing switchboards composed of

fire-resisting material or lined with approved material YES Instruments on main switchboard Two (2) ammeters Two (2)

voltage meters No synchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection

No EQUALIZER BARS Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

Fitted EARTHING LAMPS Switches, Circuit Breakers and Fusible Cut-outs, have the reversed

do these comply with the requirements of the Rules YES are the fusible cutouts of an approved type YES

current protection devices been tested under working conditions YES

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

Cables: Single, twin, concentric, or multicore are the cables insulated and protected as per Tables IV, V, X or XI of the Rules YES

If the cables are insulated otherwise than as per Rule, are they of an approved type YES

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load NIL

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

Paper Insulated and Varnished Cambric Insulated Cables, If conductors are paper or varnished cambric insulated, is the dielectric at the exposed ends of the conductor protected from moisture by being suitably sealed with insulating compound YES, or waterproof insulating tape YES

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, uptakes or other hot objects, or to avoidable risk of mechanical damage YES Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit YES

Support and Protection of Cables, state how the cables are supported and protected CABLES RUN INSIDE CONDUIT PIPE, AND SECURELY FASTENED

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, are the cables and fittings in accordance with the special requirements YES

Joints in Cables, state if any, and how made, insulated, and protected JOINTS MADE WITH SOLDERED LUGS-INSULATED-INCASED IN METAL JUNCTION BOXES

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

Water Tight Glands **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 FIBER

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 NONE FITTED

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 NONE FITTED **Secondary Batteries**, are they constructed and fitted as per Rule NONE FITTED

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 IRON GUARDS

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected WATER TIGHT FITTINGS how are the cables led THROUGH CONDUIT PIPES where are the controlling switches situated INSIDE METAL SWITCH CABINETS are all fittings suitably ventilated YES are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials YES

Heating and Cooking Appliances, are they constructed and fitted as per Rule NONE FITTED are air heaters constructed and fitted as per Rule NONE FITTED

Searchlight Lamps, No. of NONE, whether fixed or portable ✓ are their fittings as per Rule ✓

Arc Lamps, other than searchlight lamps, No. of NONE, 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 PART FORE & AFT are they protected from mechanical injury and damage from water, steam or oil YES are their axes of rotation fore and aft PART TRANSVERSE 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 NONE FITTED AS SUCH if not of this type, state distance of the combustible material horizontally or vertically above the motors ✓ and have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing ✓

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 NONE FITTED **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 THIS TYPE OIL NOT CARRIED are all fuses of the filled cartridge type YES are they of an approved type YES

If portable lamps for use in dangerous spaces are supplied, are they of a self-contained, battery-fed type approved by the Home Office ✓

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule YES

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts. TOTAL	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN ...	2	45 K.W.	110	403	430 3,600	STEAM RECIPROCATING ENGINE TURBINE		
AUXILIARY ...								
EMERGENCY ...								
ROTARY TRANSFORMER								

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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	Circuit.	Rule.			
MAIN GENERATOR S...									
EQUALISER CONNECTIONS	NONE								
AUXILIARY GENERATOR...	NONE								
EMERGENCY GENERATOR	NONE								
ROTARY TRANSFORMER	NONE								
ENGINE ROOM...									
BOILER ROOM...									
AUXILIARY SWITCHBOARDS	NONE								
ACCOMMODATION									
WIRELESS									
SEARCHLIGHT									
MASTHEAD LIGHT									
SIDE LIGHTS									
COMPASS LIGHTS									
POOP LIGHTS									
CARGO LIGHTS									
ARC LAMPS									
HEATERS									

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 Nominal Area per Pole Sq. Ins.	No.	Diameter.	In Circuit.	Rule.			
BALLAST PUMP	NONE									
MAIN BILGE LINE PUMPS	NONE									
GENERAL SERVICE PUMP	NONE									
EMERGENCY BILGE PUMP	NONE									
SANITARY PUMP	NONE									
CIRC. SEA WATER PUMPS	NONE									
CIRC. FRESH WATER PUMPS	NONE									
AIR COMPRESSOR	NONE									
FRESH WATER PUMP	NONE									
ENGINE TURNING GEAR	NONE									
ENGINE REVERSING GEAR	NONE									
LUBRICATING OIL PUMPS	ONE					8.5 KW		100 feet	RUBBER COVERED	FUSED
OIL FUEL TRANSFER PUMP	NONE									
WINDLASS	NONE									
WINCHES, FORWARD	NONE									
WINCHES, AFT	NONE									
STEERING GEAR—										
(a) MOTOR GENERATOR	NONE									
(b) MAIN MOTOR	NONE					3 1/2 H.P.		200 "	"	"
WORKSHOP MOTOR	ONE	"		"	"				"	"
VENTILATING FANS	NONE									
EVAPORATOR COOLING	ONE	"		"	"	10 H.P.		125	"	"
WATER PUMP						4.4 KW		200	"	"
CONDENSATE PUMP	ONE									
BRINE PUMP	ONE	"		"	"	1.0 HP		250	"	"
OIL CENTRIFUGE	TWO	"		"	"	2 H.P. & 1/2 H.P.		300	"	"

All Conductors are of annealed copper conforming to British Standard Specification No. 7 (or International Electro-technical Commission Publication No. 28).

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

The foregoing is a correct description.

Electrical Engineers.

Date

COMPASSES.

Distance between electric generators or motors and standard compass APPROX 200 FEET

Distance between electric generators or motors and steering compass 170

The nearest cables to the compasses are as follows:—

A cable carrying	✓	Ampères	✓	feet from standard compass	✓	feet from steering compass.
A cable carrying	✓	Ampères	✓	feet from standard compass	✓	feet from steering compass.
A cable carrying	✓	Ampères	✓	feet from standard compass	✓	feet from steering compass.

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

Has the effect of switching on and off circuits, motors and other electro-magnetic apparatus within the vicinity of the compasses been noted No

The maximum deviation due to electric currents was found to be ✓ degrees on ✓ course in the case of the standard compass, and ✓ degrees on ✓ course in the case of the steering compass.

Builder's Signature.

Date

Is this installation a duplicate of a previous case

If so, state name of vessel

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

The electrical equipment was built under Special Survey by the Bureau Veritas.

In June 1941, at Sourabaya the Surveyors to Lloyd's Register of Shipping made an examination of the electrical equipment with a view to its Classification and recommended that the electrical equipment be classed with the * L.M.C.

Total Capacity of Generators 45 Kilowatts.

The amount of Fee ...	£	:	:	When applied for,
Travelling Expenses (if any) £	:	:	:	When received.

J. E. Archibald J. M. Legg
Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK SEP 23 1942

Assigned Transmitt to London



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Foundation