

# REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

of writing Report 3<sup>rd</sup> July 1947 When handed in at Local Office 11 July 1947 Port of Baltimore, Maryland  
 in Survey held at Baltimore, Maryland Date, First Survey March 26th, Last Survey April 22nd 19 47  
 Book. (Number of Visits 4)  
465 on the S.S. "NIKOBAR" (ex "Rushville Victory") Tons { Gross 7604  
 Net 4549  
 at Baltimore, Maryland By whom built Bethlehem Fairfield S.Y. Inc. Yard No.            When built 1945  
 ers A/S Det Ostasiatiske Kompagni Port belonging to Copenhagen  
 tric Light Installation fitted by Bethlehem Fairfield Shipyard, Inc. Contract No. - When fitted 1945  
 e Vessel fitted for carrying Petroleum in bulk           

em of Distribution Three Wire Direct Current

sure of supply for Lighting 120 volts, Heating - volts, Power 240 volts,

ct or Alternating Current, Lighting Direct Power Direct

ternating current system, state frequency of periods per second -

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

erators, do they comply with the requirements regarding temperature rise Wdgs-40°C-Comm-55°C, are they compound wound Yes

hey over compounded 5 per cent. No, if not compound wound state distance between each generator -

re more than one generator is fitted are they arranged to run in parallel Yes, is an adjustable regulating resistance fitted in

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

oved - Have machines over 100 kw. been inspected by the Surveyors during manufacture and testing by A.B. Surveyors

ll terminals accessible, clearly marked, and furnished with sockets Yes, are they so spaced or shielded that they cannot be accidentally earthed,

circuited, or touched Std. Terminal Boxes Are the lubricating arrangements of the generators as per Rule Yes

ion of Generators In engine room first grating level starboard side, is the ventilation

of the generators satisfactory Yes, are they clear of all inflammable material Yes, if situated near unprotected

work or other combustible material, state distance of same horizontally from or vertically above the generators - and -,

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

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

gallic contact Yes Main Switch Boards, where placed In engine room first grating level, starboard side.

If the generators and main switchboard are not placed in the same compartment, is each generator provided with

on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard -

boards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes, are they protected from mechanical

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 - and -, are they constructed wholly of durable, non-ignitable non-absorbent

materials Ebony Asbestos, is all insulation of high dielectric strength and of permanently high insulation resistance Yes,

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

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

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

Standards Yes, accessibility of all parts Yes, absence of fuses on back of board Yes, temperature rise of

switch bars Yes, individual fuses to voltmeter, pilot or earth lamp on same fuse, are moving parts of switches alive in the

position No, are all screws and nuts securing connections effectively locked Yes, are any fuses fitted on the live side of

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

(amps. 3 pole circuit breaker for generators) Thermal breakers for branches           

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

insulating material or lined with approved material Yes Instruments on main switchboard 4 ammeters 2 volt-

ammeters - synchronizing device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equalizer connection

- Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system

lamps and switches, also ground ammeter.            Switches, Circuit Breakers and Fusible Cut-outs,

comply with the requirements of the Rules to AIEE Standards            are the fusible cutouts of an approved type            Standards            have the reversed

Em  
28/8/47

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 **A.I.E.E. Standards**

Cables: Single, twin, ~~wire~~ or multicore... **Yes** are the cables insulated and protected as per Tables IV, V, X or XI of the Rules **A.I.E.E. Standards**

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 **3 Volts** **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... **covered**

**Support and Protection of Cables**, state how the cables are supported and protected... **Main cables clipped to steel hangers, protected by sheet metal covers in hold spaces, clipped to bulkheads in accommodation.**

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 **A.I.E.E. Standards**

**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... **In Junction Boxes**

**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... **Cast metal guards.**

**Earthing Connections**, state what earthing connections are fitted and their respective sectional areas... **Cables effectively earthed.**

are their connections made as per Rule... **Yes**

**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... **Bridge deck aft.**

Automatic control from switch board... **Diesel engine driven.**

**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**, in wheel house.

has each navigation lamp an automatic indicator as per Rule... **Yes** **Secondary Batteries**, are they constructed and fitted as per Rule... **Not 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... **Cast metal 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... **No** how are the cables led... **Cast metal guards.**

where are the controlling switches situated... **Cast metal guards.**

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 **A.I.E.E. Standards** are air heaters constructed and fitted as per Rule... **Yes**

**Searchlight Lamps**, No. of **2** whether fixed or portable... **Fixed** are their fittings as per Rule... **Yes**

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

**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 possible... **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... **Totally enclosed and drip proof.**

if not of this type, state distance of the combustible material horizontally or vertically above the motors... **—** and **—**

have machines of over 100 BPH been inspected by the Surveyors during manufacture and testing... **Yes** **Control Gear and Resistances**, are the generator field and motor speed regulators, starters and controllers constructed and fitted as per Rule **A.I.E.E. Standards**

**Lightning Conductors**, where lightning conductors are required, are these fitted as per Rule **Not 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... **—** are all fuses of the filled cartridge type... **—** are they of an approved type... **—**

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.

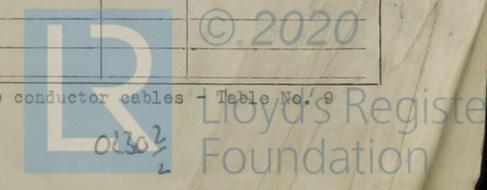
DESCRIPTION OF GENERATOR	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE	
		Kilowatts	Volts	Amperes	Revs. per Min.		Fuel Used	Flash Point of Fuel
GENERATOR	32	300	120/240	1250	1200	Turbine	—	—
GEN. ROOM	1	15	120/240	62	1450	Diesel	Diesel Oil	Above 150° F.

GENERATOR, LIGHTING AND HEATING CONDUCTORS.

DESCRIPTION	CONDUCTORS		COMPOSITION OF STRAND		TOTAL MAXIMUM CURRENT		Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
	No. per Pole	Total Nominal Area per Pole Sq. Ins.	No.	Diameter	In Circuit	AMPERES			
GENERATOR	4	1.32	37	.090	1200	1474 x	100	V.C.D.A.	Armoured
ALISER CONNECTIONS	2	.27	19	.083	368	438 x	100	"	"
ILIARY GENERATOR	2	.006	7	.024	60	60 x	100	"	"
ERY (MOTOR TRANSFORMER) (GENERATOR...)	1	.026	7	.061	68	74 x	50	"	"
INE ROOM	1	.026	7	.061	68	74 x	100	V.C.L.A.	Armoured
ER ROOM	1	.026	7	.061	68	74 x	100	"	"
ILIARY SWITCHBOARDS	1	.026	7	.061	68	74 x	100	"	"
hine Shop	1	.026	7	.061	68	74 x	100	"	"
rters Vent.	1	.067	7	.097	118	137 x	100	"	"
ley	1	.138	19	.083	187	219 x	100	"	"
ine Room	1	.026	7	.061	68	74 x	150	"	"
OMMODATION	1	.067	7	.097	118	137 x	150	"	"
go Spaces Fwd.	1	.008	7	.038	38	40.5 x	150	"	"
" Aft.	1	.067	7	.097	118	137 x	100	"	"
rters Aft	1	.042	7	.077	88	95 x	100	"	"
" Mid	1	.067	7	.097	118	137 x	100	"	"
LESS	1	.003	7	.024	23	30 x	100	"	"
CHLIGHT	1	.003	7	.024	23	30 x	100	"	"
HEAD LIGHT	1	.003	7	.024	23	30 x	100	"	"
LIGHTS	1	.003	7	.024	23	30 x	100	"	"
PASS LIGHTS	1	.003	7	.024	23	30 x	100	"	"
P LIGHTS	1	.003	7	.024	23	30 x	100	"	"
TO LIGHTS	1	.003	7	.024	23	30 x	100	"	"
LAMPS	1	.003	7	.024	23	30 x	100	"	"
TERS	1	.003	7	.024	23	30 x	100	"	"

MOTOR CONDUCTORS.

DESCRIPTION	No. of Motors	CONDUCTORS		COMPOSITION OF STRAND		TOTAL MAXIMUM CURRENT		Approximate Length (Lead and Return) Feet	Insulated with	HOW PROTECTED
		No. per Pole	Total Nominal Area per Pole Sq. Ins.	No.	Diameter	In Circuit	AMPERES			
General Service Pump	1	1	.087	19	.006	92	160 x	100	V.C.L.A.	Armoured
ILGE LINE PUMPS	1	1	.276	37	.082	268	3.33 x	100	"	"
ILARY PUMP	1	1	.276	37	.082	268	3.33 x	100	"	"
ic Sea Water Pumps	1	1	.087	19	.066	92	160 x	100	"	"
ic Sea Water PUMP	1	1	.087	19	.066	92	160 x	100	"	"
SEA WATER PUMPS	1	1	.042	7	.077	56	100 x	100	"	"
FRESH WATER PUMPS	1	1	.003	7	.024	3.3	30 x	100	"	"
OMPRESSOR Nos. 1&2	1 each	1	.042	7	.077	56	100 x	100	"	"
SH WATER PUMP Nos. 1&2	1 each	1	.003	7	.024	3.3	30 x	100	"	"
INE TURNING GEAR	1	1	.008	7	.038	19.8	40.5 x	100	"	"
INE REVERSING GEAR	1	1	.042	7	.077	38	100 x	100	"	"
ICATING OIL PUMPS	1	1	.042	7	.077	38	100 x	100	"	"
FUEL TRANSFER PUMP	1	1	.138	19	.083	125	219 x	200	"	"
CLASS Capstan	1	1	.138	19	.083	125	219 x	200	"	"
Windlass	1	1	.423	37	.104	357	456 x	200	"	"
CHES, FORWARD	4	1	.423	37	.104	456	780 x	200	"	"
"	4	1	.423	61	.107	670	780 x	200	"	"
CHES, AFT	2	1	.138	19	.083	219	360 x	200	"	"
RING GEAR—	1	1	.138	19	.083	219	292 x	200	V.C.L.A.	Armoured
MOTOR GENERATOR	2	2	.138	19	.083	219	292 x	200	"	"
MAIN MOTOR	3	1	.026	7	.061	25	74 x	100	"	"
NSHOP MOTOR	5	1	.026	7	.061	19.4	74 x	100	"	"
ILATING FANS	1	1	.042	7	.077	38	100 x	100	"	"
"	1	1	.042	7	.077	38	100 x	100	"	"
"	1	1	.013	7	.048	19.8	55 x	100	"	"



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 60

Distance between electric generators or motors and steering compass 50

The nearest cables to the compasses are as follows:—

A cable carrying 12 Ampères 75 feet from standard compass 5 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 —

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 installation to the standard of American Bureau of Shipping has been in operation since 1945. The plans available have been examined and found to be in accordance with A.I.E.E. Marine Standard and generally in accordance with the Rules. The materials and workmanship are good and the installation has been examined under full working conditions, tested as per Rule, and found satisfactory and in my opinion is eligible to have the Society's Classification without special notation.

Total Capacity of Generators 615 Kilowatts.

The amount of Fee ... \$ 250.00 : { When applied for, 11 July 1947 }  
Traveling Expenses (if any) \$ 3.50 : { When received, 19 }  
NEW YORK JUL 16 1947

Wm. C. Lee  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned Elec. light

Im-5-41.—Transfer. Printed in U.S.A.  
(The Surveyors are requested not to write on or below the space for Committee's Minute)



© 2020

Lloyd's Register Foundation