

REPORT ON ELECTRICAL EQUIPMENT.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

- 6 AUG 1941

Received at London Office

Date of writing Report 29/7/1941 When handed in at Local Office

Port of MANCHESTER

Survey held at MANCHESTER

Date, First Survey 16/4/41

Last Survey 2/7/1941

1941

Reg. Book, 063, on the SS. MODLIN ex. WILJA.

(Number of Visits 9)

Tons { Gross
Net

built at FLENSBURG

By whom built FLENSBURGER SCHIFFBAUWERKE

Yard No. —

When built 1906

owners POLISH GOVERNMENT

Port belonging to

Electric Light Installation fitted by

Contract No. ✓

When fitted 1906

the Vessel fitted for carrying Petroleum in bulk No.

System of Distribution Two wire

Pressure of supply for Lighting 110

volts, Heating —

volts, Power —

volts.

Direct or Alternating Current, Lighting Direct

Power —

Alternating current system, state frequency of periods per second —

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 under working load, are they compound wound Yes.

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

are 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

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

certificates for generators under 100 kw. been supplied and approved —

all terminals accessible, clearly marked, and furnished with sockets Yes.

are they so spaced or shielded that they cannot be accidentally earthed,

circuited, or touched Yes.

Are the lubricating arrangements of the generators as per Rule Yes.

tion of Generators

Aft end of engine room one post & one starboard.

is the ventilation

ay 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 Aftwards ships

thing, are the bedplates and frames of the generating plant efficiently earthed Yes.

are the prime movers and their respective generators

metallic contact

Yes.

Main Switch Boards, where placed

Aft end of engine room over No. 2 generator.

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 ✓

chboards, 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

ntially from or vertically above the switchboards ✓

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

ats Marble.

is all insulation of high dielectric strength and of permanently high insulation resistance No.

f an approved type ✓

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 No.

is the non-hygroscopic insulating material of an approved

✓, 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

us bars Yes.

individual fuses to voltmeter, pilot or earth lamp for Voltmeters only.

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

es No.

Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches

Circuit breaker D.P. line & S.P. equalizer switches for each dynamo D.P. switch & fuses for each outgoing circuit.

rbine driven generators fitted with emergency trip switch as per rule ✓

Are cupboards or compartments containing switchboards composed of

isting material or lined with approved material Yes.

Instruments on main switchboard

2

ammeters

2

ynchronising device for paralleling purposes. For compound machines is the ammeter connected on the opposite pole to equaliser connection

Yes.

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

Earth lamps.

Switches, Circuit Breakers and Fusible Cut-outs,

comply with the requirements of the Rules No but considered efficient.

are the fusible cutouts of an approved type No.

have the reversed

On main board 22 type remainder British Type

W192-0084 12

current protection devices been tested under working conditions *None fitted.* are all fuses labelled as per rule *No.*

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

Cables: Single, twin, concentric, or multicore *Single, twin* are the cables insulated and protected as per Tables IV, V, X, XI, XII or XIII of the Rules *in general.*

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

Fall of Pressure, state maximum between bus bars and *✓*

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

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 *✓*, or waterproof insulating tape *✓*

Cable Runs, are the cables fixed as far as possible in accessible position

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 *✓* are cables laid under machines or floorplates *No.* if so, are they adequately protected *✓*

Are cables in machinery spaces, galleys, laundries, bathrooms and lavatories lead covered or run in conduit *LC+A.*

Support and Protection of Cables, state how the cables are supported and protected *LC+A clipped up except in aft cargo space V.I.R. in p.p. & accommodation LC clipped up.*

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

Refrigerated Chambers, are the cables and fittings in accordance with the special requirements *✓*

Joints in Cables, state if any, and how made, insulated, and protected *In insulated joint boxes*

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

Bushes in Beams and Non-watertight Partitions, where unarmoured cables pass through beams and non-watertight partitions, are holes efficiently bushed *✓* 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 *No.* **Emergency Supply,** position and method of control of the emergency supply and how the generator is driven *✓*

Navigation Lamps, are these separately wired *✓*, controlled by separate switch and separate fuses *✓*, are the fuses double pole *No. 5 A.*

are the switches and fuses grouped in a position accessible only to the officers on watch *✓*

has each navigation lamp an automatic indicator as per Rule *✓*. **Secondary Batteries,** are they constructed and fitted as per Rule *✓*

are they ventilated as per Rule *✓*

Fittings, are all fittings on weather decks, in stokeholds and engine rooms and wherever exposed to drip or condensed moisture, watertight *✓*

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 *✓*

are any fittings placed in spaces where inflammable or explosive dust or gases are liable to be present, if so, how are they protected *✓*

where are the controlling switches situated *✓*

are all fittings suitably ventilated *Yes & T.E.* are all switches and lampholders constructed wholly of non-ignitable, non-absorbent materials *✓*

Heating and Cooking Appliances, are they constructed and fitted as per Rule *✓* are air heaters constructed and fitted as per Rule *✓*

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

Motors, are their working parts readily accessible *✓*, are the coils self-contained and readily removable for replacement *✓*

are the brushes, brush holders, terminals and lubricating arrangements as per Rule *✓*, are the motors placed in well-ventilated compartments in which inflammable gases cannot accumulate and clear of all inflammable material *✓*, are they protected from mechanical injury and damage *✓*

water, steam or oil *✓* are their axes of rotation fore and aft *✓*, 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 *✓*

have machines of over 100 BHP been inspected by the Surveyors during manufacture and testing *✓* have certificates for all motors

essential services been supplied and approved *✓*

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

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

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, lighting 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 flameproof type approved for use in dangerous spaces *✓*

Spare Gear, if the vessel is for open sea service have spares been supplied as per Rule *No. Not available* are they suitably stored in dry situations *✓*

PARTICULARS OF GENERATING PLANT.

DESCRIPTION OF GENERATOR.	No. of	RATED AT				DRIVEN BY	WHERE DRIVEN BY AN INTERNAL COMBUSTION ENGINE.	
		Kilowatts.	Volts.	Ampères.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
IN No. 1...	1	82	110	74.5	500	S.C. Steam Engine		
Emergency No. 2...	1	10.0	118	84	750	do.		
Emergency No. 3...								
Emergency No. 4...								
Emergency No. 5...								
Emergency No. 6...								
Emergency No. 7...								
Emergency No. 8...								
Emergency No. 9...								
Emergency No. 10...								
Emergency No. 11...								
Emergency No. 12...								
Emergency No. 13...								
Emergency No. 14...								
Emergency No. 15...								
Emergency No. 16...								
Emergency No. 17...								
Emergency No. 18...								
Emergency No. 19...								
Emergency No. 20...								
Emergency No. 21...								
Emergency No. 22...								
Emergency No. 23...								
Emergency No. 24...								
Emergency No. 25...								
Emergency No. 26...								
Emergency No. 27...								
Emergency No. 28...								
Emergency No. 29...								
Emergency No. 30...								
Emergency No. 31...								
Emergency No. 32...								
Emergency No. 33...								
Emergency No. 34...								
Emergency No. 35...								
Emergency No. 36...								
Emergency No. 37...								
Emergency No. 38...								
Emergency No. 39...								
Emergency No. 40...								
Emergency No. 41...								
Emergency No. 42...								
Emergency No. 43...								
Emergency No. 44...								
Emergency No. 45...								
Emergency No. 46...								
Emergency No. 47...								
Emergency No. 48...								
Emergency No. 49...								
Emergency No. 50...								
Emergency No. 51...								
Emergency No. 52...								
Emergency No. 53...								
Emergency No. 54...								
Emergency No. 55...								
Emergency No. 56...								
Emergency No. 57...								
Emergency No. 58...								
Emergency No. 59...								
Emergency No. 60...								
Emergency No. 61...								
Emergency No. 62...								
Emergency No. 63...								
Emergency No. 64...								
Emergency No. 65...								
Emergency No. 66...								
Emergency No. 67...								
Emergency No. 68...								
Emergency No. 69...								
Emergency No. 70...								
Emergency No. 71...								
Emergency No. 72...								
Emergency No. 73...								
Emergency No. 74...								
Emergency No. 75...								
Emergency No. 76...								
Emergency No. 77...								
Emergency No. 78...								
Emergency No. 79...								
Emergency No. 80...								
Emergency No. 81...								
Emergency No. 82...								
Emergency No. 83...								
Emergency No. 84...								
Emergency No. 85...								
Emergency No. 86...								
Emergency No. 87...								
Emergency No. 88...								
Emergency No. 89...								
Emergency No. 90...								
Emergency No. 91...								
Emergency No. 92...								
Emergency No. 93...								
Emergency No. 94...								
Emergency No. 95...								
Emergency No. 96...								
Emergency No. 97...								
Emergency No. 98...								
Emergency No. 99...								
Emergency No. 100...								

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.	Circuit.	Rule.			
IN GENERATOR ...	1				84		40	V.I.R.	LC+A.
UALISER CONNECTIONS ...	1		7	0.044			20	V.I.R.	LC+B.
ILIARY GENERATOR ...									
ERGENCY GENERATOR ...									
ARY MOTOR ...									
ANSFORMER ...									
INE ROOM ...	1				8.0		36	V.I.R.	LC+A.
LER ROOM ...	1								
ILIARY SWITCHBOARDS ...									
urigation ...	1				2.2		284	V.I.R.	LC+A.
OMMODATION Saloon ...	1				9.0		240	V.I.R.	LC+A.
" Ford ...	1				4.0		440	V.I.R.	LC+A.
" Aft ...	1				3.0		420	V.I.R.	LC+A. Part V.I.R. in Pipe
G. ...	1				48.0		50	V.I.R.	LC+A. Part V.I.R. in Pipe
ELLESS ...	1				20.0				
OLIGHT ...	1						265	V.I.R.	LC+A.
HEAD LIGHT ...	1				4		340	V.I.R.	LC+A. Part V.I.R. in Pipe
LIGHTS ...	1				4		60	V.I.R.	LC+A.
PASS LIGHTS ...	1				2		34	V.I.R.	LC
LIGHTS ...	1				4		490	V.I.R.	LC+A. Part V.I.R. in Pipe
O LIGHTS ...									
ERS ...									

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.	Rule.			
AST PUMP ...										
BILGE LINE PUMPS ...										
AL SERVICE PUMP ...										
GENOY BILGE PUMP ...										
ARY PUMP ...										
SEA WATER PUMPS ...										
FRESH WATER PUMPS ...										
OMPRESSOR ...										
WATER PUMP ...										
E TURNING GEAR ...										
E REVERSING GEAR ...										
CATING OIL PUMPS ...										
FUEL TRANSFER PUMP ...										
ASS ...										
ES, FORWARD ...										
ES, AFT ...										
NG GEAR ...										
MOTOR GENERATOR ...										
MAIN MOTOR ...										
ROP MOTOR ...										
ATING FANS ...										

The Electrical Equipment is installed in accordance with the approved plans.

All 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.

Minimum distance between electric generators or motors and standard compass 92 ft. approx.

Minimum distance between electric generators or motors and steering compass 85 ft. approx.

The nearest cables to the compasses are as follows:—

A cable carrying 2.2 Ampères 8 feet from standard compass in feet from steering compass.

A cable carrying 2.2 Ampères in feet from standard compass 8 feet from steering compass.

A cable carrying 2.8 Ampères 14 feet from standard compass 10 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 No. If so, state name of vessel

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

has been examined, tested and tried under working conditions and has been found satisfactory.

Total Capacity of Generators 18.2 Kilowatts.

The amount of Fee ... £ : : When applied for, 19.
See M/C letter of 5/8/41.
Travelling Expenses (if any) £ : : When received, 19.

L. C. Clayton
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 12 AUG 1941

Assigned

See Arch. Ref. 10607



© 2019

Lloyd's Register
Foundation

LLOYD'S REGISTER OF SHIPPING.