

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report 2nd April 1928 When handed in at Local Office

Port of YOKOHAMA

No. in Survey held at YOKOHAMA
Reg. Book.Date, First Survey 2nd Dec 1928Last Survey 24th March 1928

(Number of Visits.....10.....)

on the STEEL SINGLE SCREW STEAMER "SHOYO MARU"

Tons { Gross
Net

Built at YOKOHAMA

By whom built YOKOHAMA Dock Co

Yard No. 159

When built 1928

Owners NIPPON TANKER KABUSHIKI KAISHA.

Port belonging to YOKOHAMA

Electric Light Installation fitted by YOKOHAMA Dock Co

Contract No.

When fitted 1928

System of Distribution

Two wire insulated system. ✓

Pressure of supply for Lighting

100 ✓

volts, Heating ✓

volts, Power ✓

volts.

Direct or Alternating Current, Lighting

Direct ✓

Power

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 overload 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 No, is an adjustable regulating resistance fitted in series with each shunt field YES

Are all terminals accessible and clearly marked YES, are they so spaced or shielded that they cannot be accidentally earthed, or short circuited YES Are the lubricating arrangements of the generators as per Rule YES

Position of Generators

After end of engine room and on second deck level.

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

are their axis 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 YES

Main Switch Boards, where placed

After end of engine room and on second deck level

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 ✓

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 ✓ and ✓

are they constructed wholly of durable, incombustible non-absorbent materials YES (framework insulated with mica tube) is all insulation of high dielectric strength and of permanently high insulation resistance YES

if semi-insulating material is used, are all conducting parts connected to one pole insulated from the slab with mica or micanite and the slab similarly insulated from its framework ✓, and is the frame effectively earthed YES

Are the following fittings as per Rule, viz.:— 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 Common to both, connections of switches Back

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

For each generator one circuit breaker and two fuses. For out going circuits Six double pole double throw switches with fuse. No equalizer.

Instruments on main switchboard

2

ammeters

2

voltmeters

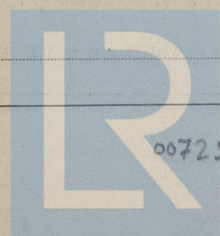
synchronising device for paralleling purposes.

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

Earth Lamps.

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

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



© 2021

007257-007258-0050 1/2
Lloyd's Register
Foundation

Insulation of Cables, state type of cables, single or twin Single are the cables insulated and protected as per Tables III or IV of the Rules YES.

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 5 Volts.

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.007 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 ✓.

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.

Support and Protection of Cables, state how the cables are supported and protected Iron & Brass clips.

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 VI YES.

Refrigerated Chambers, if lights are fitted, are the cables and fittings in accordance with the special requirements In Domestic Chambers YES.

Joints in Cables, state if any, and how made, insulated, and protected ✓.

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 Positions, 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 Rubber insulated wire 0.011 sq. inch.

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 ✓.

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, are separate screens provided for the use of oil and electric side lights YES, are separate oil lanterns provided for the mast head lights and side lights 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 By 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 Gas proof fittings, how are the cables led By steel conduits, where are the controlling switches situated outside the spaces.

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

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 ✓, 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 from water, steam or oil ✓ are their axis 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 ✓.

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed 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 ✓.

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.	
MAIN ...	2	10 ✓	110	91	600	Steam Reciprocating Engine	✓	✓	
AUXILIARY ...	✓								
EMERGENCY ...	✓								
ROTARY TRANSFORMER	✓								

LIGHTING AND HEATING CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Conductors.	Effective Area of each Conductor Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR...	2	0.816 ✓	80	20	90	40'	Rubber	Lead cover
	AUXILIARY GENERATOR ✓								
	EMERGENCY GENERATOR ✓								
	ROTARY TRANSFORMER...								
	AUXILIARY SWITCHBOARDS ✓								
	ENGINE ROOM ...								
	BOILER ROOM ...								
	WIRELESS ...	2	0.245 ✓	4	16	12	550ft	Rubber	Lead covered & armoured
	SEARCHLIGHT ...								
	MASTHEAD LIGHT...	4	0.018 ✓	1	18	0.4	430ft to mast 300ft to aft mast 55ft.	Rubber.	Lead cover through pipe.
	SIDE LIGHTS ...	4	0.018 ✓	1	18	0.4		Rubber	do.
	COMPASS LIGHTS ...								
	POOP LIGHTS ...								
	CARGO LIGHTS ...	4	0.018 ✓	1	18	1.4	250ft.		Lead cover & armoured.
	ARC LAMPS ...								
	HEATERS ...								

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	Effective Area of each Conductor Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current Ampères.	Approximate Length (Lead and Return) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	BALLAST PUMP ...								
	MAIN BILGE LINE PUMPS ...								
	GENERAL SERVICE PUMP ...								
	EMERGENCY BILGE PUMP ...								
	SANITARY PUMP ...								
	CIRC. SEA WATER PUMPS ...								
	CIRC. FRESH WATER PUMPS ...								
	AIR COMPRESSOR ...								
	FRESH WATER PUMP ...								
	ENGINE TURNING GEAR ...								
	ENGINE REVERSING GEAR ...								
	LUBRICATING OIL PUMPS ...								
	OIL FUEL TRANSFER PUMP ...								
	WINDLASS ...								
	WINCHES, FORWARD ...								
	WINCHES, AFT ...								
	STEERING GEAR ...								
	WORKSHOP MOTOR ...								
	VENTILATING FANS ...								

All Conductors are of annealed copper conforming to British Standard Specification No. 7. *YES.*
The Insulated Conductors are guaranteed to withstand the immersion and resistance tests specified in the Rules. *YES.*
The foregoing is a correct description.

R. Miyake Electrical Engineers.

Date *10th Apr. 1928*

COMPASSES.

Distance between electric generators or motors and standard compass

300 ft.

Distance between electric generators or motors and steering compass

290 ft.

The nearest cables to the compasses are as follows:—

A cable carrying *3* Amperes *8* feet from standard compass feet from steering compass.

A cable carrying *0.2* Amperes feet from standard compass *1* feet from steering compass.

A cable carrying Amperes feet from standard compass 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 *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.

J. Tenehija

Builder's Signature.

Date *10th Apr 1928*

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 of this vessel has been fitted in accordance with the Rules. Tested under running conditions with satisfactory results.

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

WD
8/5/28

Total Capacity of Generators *20* Kilowatts

The amount of Fee ... *YEN 245⁰⁰* When applied for, *26-3-1928*
Travelling Expenses (if any) £ : : When received, *2-4-1928*

R. O. Batchelor per F. I. Smith
Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

Elec. light

Im. 922.—Transfer.
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



© 2021

Lloyd's Register
Foundation