

# REPORT ON ELECTRIC FITTINGS

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office

26 APR 1933

Date of writing Report 29th Mar 1933 When handed in at Local Office 29th Mar 1933 Port of NAGASAKI.

No. in Survey held at NAGASAKI. Date, First Survey 3rd Feby. 33 Last Survey 17th March 1933  
Reg. Book. (Number of Visits 8)

on the Steel Single Screw Motor Vessel "KOSEI MARU".

Tons { Gross 6665.81  
Net 4765.62

Built at Nagasaki.

By whom built Mitsubishi Zosen Kaisha Yard No. 522

When built 1933

Owners Hiroumi Shoji Kabushiki Kaisha.

Port belonging to Kobe.

Electric Light Installation fitted by Mitsubishi Zosen Kaisha, Ltd., Contract No. - When fitted 1933

System of Distribution Two wire system.

Pressure of supply for Lighting 220 volts, Heating 220 volts, Power 220 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 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 Yes, 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 In 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

/ 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 At forward end of 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 /

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, 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 Yes, 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 Yes, connections of switches Yes

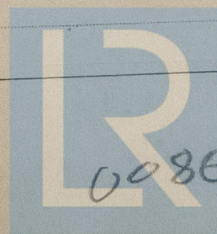
Main Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches A double pole circuit breaker with overload trip time-lag device and reverse current trip and single pole equalizer switch interlocked with the circuit breaker as per rule, and a double pole knife switch for each of 90 K.W. Generators: A double pole circuit breaker with overload trip, time-lag device or a double pole switch pole switch and fuse for each of out going circuits.

Instruments on main switchboard 5 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 By lamp.

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



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

Ref. No.	DESCRIPTION.	<del>XXX</del>	Effective Area of each Conductor. Sq. Ins.	COMPOSITION OF STRAND.		Total Maximum Current. Amperes.	Approximate Length. (Lead and Return.) Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
30	No.1 Sub.main Bd...	2	.00701	7	.036	18.9 ✓	188	"	"
31	No.1 Dist board...	2	.00701	7	.036	16.8 ✓	10	"	"
32	No.2 " " " " " "	2	.00322	1	.064	3.7 ✓	76	"	"
33	No.3 " " " " " "	2	.00701	7	.036	11.8 ✓	50	"	"
34	Socket for Eng.Rm. Cargo lamp	2	.00181	1	.048	2.27 ✓	95	"	"
35	Flex.cord for above	20	.00300	70	.2014	" ✓	80	"	Cabtyre flex cord
36	Bus-bar lamp.	2	.00181	1	.048	1.09 ✓	50	"	Lead covered
37	Charge device for Batt.portable Lamp.	2	.00181	1	.048	1.2 ✓	135	"	"
38	Navige.lamp.circuit	2	.00701	7	.036 ✓	1	250	"	"
39	Junc.box for lamp.	2	.00181	1	.048	0.18 ✓	424	"	"
40	Fore mast lamp	20	"	1	"	" ✓	60	"	Lead covered armoured & braided
41	Side lamp (port)	2	"	1	"	" ✓	132	"	Lead covered
42	Stern lamp	2	"	1	"	" ✓	684	"	"
43	No.2 Submain Bd.	2	.01462	7	.052	27 ✓	142	"	"
44	Cargo lamp "A" circ't.	2	.00322	1	.064	4.54 ✓	340	"	"
45	Flex.cord portable lamp	20	.00170	42	.2014	0.9 ✓	45	"	Cabtyre flex cor
46	" " cargo lamp	20	.00300	70	.2014	2.27 ✓	80	"	"
47	" " cluster	2	"	"	"	1.09 ✓	80	"	"
48	Cargo lamp circuit	2	.00322	1	.064	4.5 ✓	120	"	Lead covered
49	" " " "	2	"	1	"	4.6 ✓	324	"	"
50	No.3 Sub.main Bd.	2	.02214	7	"	36 ✓	188	"	"
51	Batt.lamp circuit	2	.00701	7	.036	7.6 ✓	64	"	"
52	Elec.heater.	2	.00322	1	.064	9 ✓	136	"	"



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.

NAGASAKI WORKS, MITSUBISHI ZEN KAISHA, LTD.

*N. Motora*  
GENERAL MANAGER.

Electrical Engineers.

Date *30<sup>th</sup> March 1933*

#### COMPASSES.

Distance between electric generators or motors and standard compass *20 feet from bracket fan motor.*

Distance between electric generators or motors and steering compass *12 " " " " "*

The nearest cables to the compasses are as follows:—

A cable carrying *0.1* Amperes *1* feet from standard compass *1* feet from steering compass.

A cable carrying *1.51* Amperes *20* feet from standard compass *16* 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 *Yes*

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

NAGASAKI WORKS, MITSUBISHI ZEN KAISHA, LTD.

*N. Motora*  
GENERAL MANAGER.

Builder's Signature.

Date *30 March 1933*

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 materials and workmanship are good and the installation has been fitted in accordance with the Rules, tested under full working conditions and found satisfactory.*

*Plans sent under separate cover of:- Wiring diagram (2 sheets).*

*It is submitted that  
this vessel is eligible for  
THE REGISTER*

*Electric Light*

*W. J. Buchanan*  
*28-4-33*

Total Capacity of Generators *270* Kilowatts

The amount of Fee ... *£ 633:00* : 

When applied for,
<i>20. 3. 33</i>
When received,
<i>29. 3. 33</i>

Travelling Expenses (if any) £ : :

*T. Kanishi & S. H. Buchanan*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 28 APR 1933*

Assigned *Elec Lt*

In 1924.—Transfer.  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)



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