

# REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 6-9-28 When handed in at Local Office 10 Port of Kobe Received at London Office 11 Oct 1928

No. in Survey held at Lama Date, First Survey 24-7-28 Last Survey 3 3-9-1928  
Reg. Book. (Number of Visits 8)

on the Steel Single Screw Motorship "TAIHEI MARU"

Built at Lama By whom built Mitsui Bussan Kaisha Yard No. 146 When built 1928  
Owners Shimadani Kisen Kaisha Port belonging to Kobe

Electric Light Installation fitted by Mitsui Bussan Kaisha Contract No. 146 When fitted 1928

System of Distribution Two wire closed circuit.  
Pressure of supply for Lighting 100. OTHER 220. volts, Heating 220 volts, Power 220. volts.  
Direct or Alternating Current, Lighting Direct. Power Direct.

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 All on bottom engine room platform. One 66 KW. & 4 KW. on Port side. Two 66 KW. on Starboard side.  
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 In engine room, bottom platform, port side, after end.

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 No. (MARBLE SLABS), 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 Each generator

fitted with double pole switch, double pole fuse, double pole circuit breaker with overload & reverse current release & The equalizer leads suitably connected as per rule.

Instruments on main switchboard 5 ammeters 3 voltmeters 3 pilot lamps 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 2 lamps & switches.

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..... ✓

MOTOR CONDUCTORS.									
Ref. No.	DESCRIPTION.	No. of Motors.	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.				
3	BALLAST PUMP ... ..	1	1061	60	20	60	140	Rubber	Armoured.
5	MAIN BILGE LINE PUMPS ...	1	10305	30	20	36	145	"	"
	GENERAL SERVICE PUMP ...								
	EMERGENCY BILGE PUMP ...								
1	SANITARY PUMP ... .. 2 1/8" 1/4" 3/16" CIRC. SEA WATER PUMPS ...	1	112	110	20	120	120	"	"
	CIRC. FRESH WATER PUMPS								
8	AIR COMPRESSOR ... .. 2 OIL PURIFIERS. FRESH WATER PUMP ...	3	1061	60	20	68	130	"	"
4	ENGINE TURNING GEAR ...	1	10305	30	20	40	110	"	"
	ENGINE REVERSING GEAR ...								
2	LUBRICATING OIL PUMPS ... 2 1/8" 1/4" 3/16" OIL FUEL TRANSFER PUMP	1	1061	60	20	60	130	"	"
16	WINDLASS ... ..	1	1220	225	20	220	600	"	"
	WINCHES, FORWARD ...								
	WINCHES, AFT ... ..								
9	STEERING GEAR ... ..	1	1061	60	20	187 1/2 72	500	"	"
7	WORKSHOP MOTOR ... ..	1	1061	60	20	60	160	"	"
10	VENTILATING FANS ... .. No 6 winches.	2	254	250	20	246 240	400	"	"
11	No 5 " ... ..	2	203	200	20	224	190	"	"
12	No 4 " ... ..	2	203	200	20	224	260	"	"
13	No 3 " ... ..	2	203	200	20	224	420	"	"
14	No 2 " ... ..	2	203	200	20	224	420	"	"
15	No 1 " ... ..	2	203	200	20	224	600	"	"



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.

Electrical Engineers.

Date

#### COMPASSES.

Distance between electric generators or motors and standard compass

Distance between electric generators or motors and steering compass

The nearest cables to the compasses are as follows:—

A cable carrying 224 Ampères 44 feet from standard compass 250 feet from steering compass.

A cable carrying 72 Ampères 260 feet from standard compass 10 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 No

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.

*P. R. K. A. S.*

Builder's Signature.

Date Sept. 4th 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 electrical apparatus described herein has been constructed & installed in accordance with the Rule requirements & approved plans.

The materials used & the workmanship employed are both good & in my opinion the vessel is now entitled to the highest class awarded.

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

17/10/28.

Total Capacity of Generators 198 Kilowatts

The amount of Fee ... YEN 388: — : When applied for, 19.  
Travelling Expenses (if any) \$ — : — : When received, 5.11.28.  
included in Hull report

*H. R. Kimber*

Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 26 OCT 1928

Assigned

*Elect. Light*



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