

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

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

No. in Survey held at Sama 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" Tons { Gross 6285
 Net 3835

Built at Sama 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 (ENGR. ROOM) FOCKLE 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

Insulation of Cables, state type of cables, single or twin *BOTH* 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 *6.7 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 *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*.

Support and Protection of Cables, state how the cables are supported and protected *Brass clips, armoured cable, galvanised fixing in places*.

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 VI *YES*.

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

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

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 *YES*.

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

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 *Small 12 volt battery - sufficient for 3 lamps - placed alongside main switchboard in engine room*.

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 *No*.

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 *YES*.

where are the controlling switches situated *YES*.

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

Are Lamps, other than searchlight lamps, No. of *YES*, 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 axis of rotation fore and aft *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 *YES*, if not of this type, state distance of the combustible material horizontally or vertically above the motors *YES* and *YES*.

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 *YES*.

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

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 ...	3	66 each	220	300	400	Diesel Engines	Diesel oil	Above 150°F.
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 GENERATORS.	2	509	250	20	300	150	Rubber	Armoured.
	AUXILIARY GENERATOR								
	EMERGENCY GENERATOR								
6	ROTARY TRANSFORMER	1	0305	30	20	26	20	"	"
	AUXILIARY SWITCHBOARDS	1	0305	30	20	26	26	"	"
	ENGINE ROOM	2	015	15	20	20	50	"	"
	BOILER ROOM								
18	220 Volt Lighting	1	015	15	20	14	130	"	"
19	WIRELESS	1	0305	30	20	24	750	"	"
	SEARCHLIGHT								
	MASTHEAD LIGHT	3		1	18	03	300	"	"
	SIDE LIGHTS	1		3	18	03	50	"	"
	COMPASS LIGHTS	1		2	18	03	20	"	"
	POOP LIGHTS	2		1	18	05	180	"	"
	CARGO LIGHTS	1		7	20	25	600	"	"
	ARC LAMPS								
	HEATERS	1	112	110	20	105	130	"	"

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.				
3	BALLAST PUMP	1	061	60	20	60	140	Rubber	Armoured.
5	MAIN BILGE LINE PUMPS	1	0305	30	20	36	145	"	"
	GENERAL SERVICE PUMP								
	EMERGENCY BILGE PUMP								
	SANITARY PUMP								
1	CIRC. SEA WATER PUMPS	1	112	110	20	120	120	"	"
	CIRC. FRESH WATER PUMPS								
	AIR COMPRESSOR								
8	FRESH WATER PUMP	3	061	60	20	68	130	"	"
4	ENGINE TURNING GEAR	1	0305	30	20	40	110	"	"
	ENGINE REVERSING GEAR								
	LUBRICATING OIL PUMPS								
2	OIL FUEL TRANSFER PUMP	1	061	60	20	60	130	"	"
16	WINDLASS	1	1220	225	20	220	600	"	"
	WINCHES, FORWARD								
	WINCHES, AFT								
9	STEERING GEAR	1	061	60	20	72	500	"	"
7	WORKSHOP MOTOR	1	061	60	20	60	160	"	"
	VENTILATING FANS								
10	N°6 Winches	2	254	250	20	240	400	"	"
11	N°5 "	2	203	200	20	224	190	"	"
12	N°4 "	2	203	200	20	224	260	"	"
13	N°3 "	2	203	200	20	224	420	"	"
14	N°2 "	2	203	200	20	224	420	"	"
15	N°1 "	2	203	200	20	224	600	"	"

