

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Received at London Office.....

Date of writing Report 29. 12. 1933. When handed in at Local Office 19 Port of KOBE.

No. in Survey held at HARIMA. Date, First Survey 4-8-33. Last Survey 1-12-33. 19
Reg. Book. (Number of Visits 6.)

40258 on the SINGLE SCREEN MOTOR VESSEL "KOMAKI MARU" Tons { Gross 6468.06.
Net 3812.37.

Built at HARIMA. By whom built HARIMA S.B. & ENG CO. LD. Yard No. 189. When built 1933.

Owners KOKUSAI KISEN KABUSHIKI KAISHA. Port belonging to OSAKA.

Electric Light Installation fitted by HARIMA S.B. & ENG CO. LD. Contract No. 189. When fitted 1933.

System of Distribution POWER TWO-WIRE SYSTEM. LIGHTING THREE-WIRE SYSTEM.

Pressure of supply for Lighting 110. 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 rating 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, clearly marked, and furnished with sockets YES., are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched YES.

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

Position of Generators 3 SETS PORT SIDE ENGINE ROOM. 1 SET STARBOARD SIDE ENGINE ROOM TWEEN DECK.

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

NO WOODWORK OR COMBUSTIBLE MATERIAL IN THE VICINITY., are the generators protected from mechanical injury and damage from water, steam or oil YES.

are their axes 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 FORWARD END OF ENGINE ROOM FACING AFT.

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 YES.

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 YES. and YES.

are they constructed wholly of durable, non-ignitable 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 insulated from the slab with mica or micaite or other non-hygroscopic insulating material, and the slab similarly insulated from its framework YES.

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., 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

HAS THREE POLE SINGLE THROW 250V, 1000A HAND OPERATED AUTOMATIC AIR CIRCUIT BREAKERS (MIDDLE POLE

FOR EQUALIZER). OUTGOING CIRCUIT PROPER RANGE TWO POLE HAND OPERATED AUTOMATIC AIR CIRCUIT BREAKERS.

Instruments on main switchboard 19. ammeters 3 voltmeters 1 synchronising device for paralleling purposes.

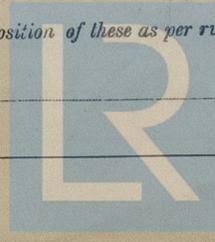
Earth Testing, state what means are provided at the main switchboard for indicating the state of the insulation of the system EACH LINE HAS PILOT

LAMP WITH WHITE GLOBE AND SERIES RESISTANCE.

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

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

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Lloyd's Register Foundation

Cables: Single, twin, concentric, or multicore. SINGLE CONCENTRIC are the cables insulated and protected as per Tables IV or V of the Rules YES.

Fall of Pressure, state maximum between bus bars and any point of the installation under maximum load 7.78 VOLTS.

Cable Sockets and other connections, are the ends of all cables having a sectional area of 0.04 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 SUPPORTED BY STEEL OR BRASS CLIPS AND PROTECTED BY GALVANIZED IRON SHEETS OR IRON PIPES WHERE NECESSARY.

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 VIII YES.

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

Joints in Cables, state if any, and how made, insulated, and protected BRASS TERMINAL FIXED ON BAKELITE PANEL AND PROTECTED BY WATER TIGHT IRON BOXES.

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 Partitions, 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 OR WOOD.

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 YES.

Emergency Supply, state position and method of control of the emergency supply and how the generator is driven SITUATED ON STARBOARD SIDE ENGINE ROOM TWEEN DECK, CONTROL IN TWEEN DECK DRIVEN BY DIESEL ENGINE.

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.

Secondary Batteries, are they constructed and fitted as per Rule YES.

Fittings, are all fittings on weather decks, in storerooms 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 IRON PLATES.

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

how are the cables led ✓

where are the controlling switches situated ✓

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 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 axes 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 ✓ and ✓

Control Gear and Resistances, are the generator field and motor speed regulators, starters and controllers constructed and fitted 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.	Amperes.	Revs. per Min.		Fuel Used.	Flash Point of Fuel.
MAIN	3	180	225	800	330	DIESEL ENGINE	HEAVY OIL	93° C.
EMERGENCY	1	30	225	1335	550	" "	" "	" "
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. Amperes.	Approximate Length. (Lead and Return). Feet.	Insulated with	HOW PROTECTED.
				No.	Diameter.				
	MAIN GENERATOR	4	0.3358	127	1.6 mm.	312	245 FEET.	PAPER.	ARMoured WIRE.
	EQUALISER CONNECTIONS	1	"	"	"	461	" "	"	" "
	AUXILIARY GENERATOR	2	0.1153	37	"	210	33 "	"	" "
	EMERGENCY GENERATOR								
	ROTARY TRANSFORMER								
	AUXILIARY SWITCHBOARDS	2	0.1153	37	1.6 mm.	210	180 FEET	PAPER.	ARMoured WIRE.
	ENGINE ROOM	3	0.01227	7	1.2 "	17	200 "	RUBBER.	" "
	BOILER ROOM	3	0.006902	7	0.9 "	14	150 "	"	" "
	ACCOMMODATION BRIDGE	3	0.02182	7	1.6 "	33	245 "	"	" "
	CREW SPACE	3	0.01227	7	1.2 "	9	200 "	"	" "
	F. & A. SHELTER DK.	3	0.006902	7	0.9 "	4	210 "	"	" "
	FANS & HEATERS	2	0.02182	7	1.6 "	36.5	200 "	"	" "
	EMERGENCY LIGHTS	2	0.0333	19	1.2 "	40	200 "	"	" "
	WIRELESS	2	0.0333	19	1.2 mm.	57.5	240 FT.	RUBBER.	ARMoured WIRE.
	SEARCHLIGHT	2	0.0069	7	0.9 "	23.5	300 "	"	" "
	MASTHEAD LIGHT	2	0.003117	7	1.6 "	12	500 "	"	" "
	SIDE LIGHTS	2	0.0069	7	0.9 "	23.5	300 "	"	" "
	COMPASS LIGHTS	3	0.0218	7	1.6 "	45.5	280 "	"	" "
	POOP LIGHTS	3	0.0069	7	0.9 "	23.5	80 "	"	" "
	CARGO LIGHTS	3	0.0218	7	1.6 "	45.5	170 "	"	" "
	ARC LAMPS	3	0.01227	7	1.2 "	34.0	350 "	"	" "
	HEATERS	3	0.0218	7	1.6 "	45.5	275 "	"	" "

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.				
	BILGE BALLAST PUMP	1	0.1153	37	1.6 mm.	127	250 FT.	RUBBER.	ARMoured WIRE.
	MAIN BILGE LINE PUMPS	1	0.02182	7	1.6 "	45.5	265	"	" "
	GENERAL SERVICE PUMP	1	0.1153	37	1.6 "	210	310	PAPER.	" "
	EMERGENCY BILGE PUMP								
	SANITARY PUMP	1	0.02182	7	1.6 "	45.5	225	RUBBER.	" "
	CIRC. SEA WATER PUMPS	2	0.2836	31	1.6 "	373	160.	PAPER.	" "
	CIRC. FRESH WATER PUMPS	2	0.2836	31	1.6 "	373	160.	"	" "
	AIR COMPRESSOR	1	0.32586	127	1.6 "	461	200.	"	" "
	FRESH WATER PUMP	1	0.004175	7	0.7 "	17	140.	RUBBER.	" "
	ENGINE TURNING GEAR	1	0.00333	19	1.2 "	57.5	260.	"	" "
	ENGINE REVERSING GEAR	✓							
	LUBRICATING OIL PUMPS	2	0.1153	37	1.6 "	210	135.	PAPER.	" "
	OIL FUEL TRANSFER PUMP	2	0.1153	37	1.6 "	127	265.	RUBBER.	" "
	WINDLASS	2	0.2836	31	1.6 "	373	550.	PAPER.	" "
	WINCHES, FORWARD	10	0.5672	31 x 2	1.6 "	746	440.	"	" "
	WINCHES, AFT	9	0.5672	31 x 2	1.6 "	746	480.	"	" "
	STEERING GEAR								
	(a) MOTOR GENERATOR	1	0.1153	37	1.6 "	127	215.	RUBBER.	" "
	(b) MAIN MOTOR	1	0.0648	37	1.2 "	88	625.	"	" "
	WORKSHOP MOTOR	1	0.004175	7	0.7 "	17	190.	"	" "
	VENTILATING FANS	4	0.0333	19	1.2 "	57.5	210	"	" "
	PORT SERVICE C.W. PUMP	1	0.004175	7	0.7 "	17	100.	"	" "
	STAND BY LUB OIL PUMP	1	0.006902	7	0.9 "	23.5	110	"	" "
	LUB OIL PURIFIER	3	0.0333	19	1.2 "	57.5	265.	"	" "
	LUB OIL PURIFIER	2	0.004175	7	0.7 "	17	130	"	" "
	FUEL OIL SERVICE PUMP	2	0.02182	7	1.6 "	45.5	260	"	" "
	GALLEY FAN	1	0.004175	7	0.7 "	17	320	"	" "
	TRAVELLING CRANE	2	0.02182	7	1.6 "	45.5	240	"	" "
	DRIP WATER PUMP	1	0.004175	7	0.7 "	17	130.	"	" "



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