

REPORT ON ELECTRIC FITTINGS.

(OTHER THAN FOR THE PROPULSION OF THE VESSEL)

Date of writing Report 14th Aug. 1926 When handed in at Local Office 14th Aug. 1926 Port of NAGASAKI. Received at London Office 17 SEP 1926

No. in Survey held at NAGASAKI. Date, First Survey 10th May 26 Last Survey 7th August 1926
Reg. Book. (Number of Visits 15)

on the Steel Twin Screw Motor Vessel "MONTEVIDEO MARU". Tons { Gross 7,267.
Net 4387.

Built at Nagasaki. By whom built Mitsubishi Zosen Kaisha Yard No. 412, When built 1926.

Owners Osaka Shosen Kabushiki Kaisha. Port belonging to Osaka.

Electric Light Installation fitted by Mitsubishi Zosen Kaisha, Ltd., Contract No. When fitted 1926.

System of Distribution Two wire closed circuit.

Pressure of supply for Lighting 225 volts, Heating 225 volts, Power 225 volts.

Effect or Alternating Current, Lighting Direct Power Direct

Alternating current system, state frequency of periods per second /

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

they over compounded 5 per cent. Yes, if not compound wound state distance between each generator /

are more than one generator is fitted are they arranged to run in parallel Yes, except 3.5 kw, is an adjustable regulating resistance fitted in

with each shunt field Yes

all terminals accessible and clearly marked Yes, are they so spaced or shielded that they cannot be accidentally earthed,

short circuited Yes Are the lubricating arrangements of the generators as per Rule Yes

Position of Generators All on bottom platform of Engine room space.

ventilation in way of the generators satisfactory Yes, are they clear of all inflammable material Yes

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

their axis of rotation fore and aft Yes

thing, are the bedplates and frames of the generating plant efficiently earthed Yes are the prime movers and

respective generators in metallic contact Yes

Switch Boards, where placed Fore end of Engine room on 2nd deck level.

If the generators and main switchboard are not placed in the same compartment, is each generator provided with

on each insulated pole as near as possible to the terminals of the generator, additional to that provided on the main switchboard In same compartment.

switchboards, are they placed in accessible positions, free from inflammable gases and acid fumes Yes

they protected from mechanical injury and damage from water, steam or oil Yes, if situated near unprotected

work or other combustible material, state distance of same horizontally from or vertically above the switchboards / and /,

they constructed wholly of durable, incombustible non-absorbent materials Yes, is all insulation of high dielectric strength and of

presently high insulation resistance Yes, if semi-insulating material is used, are all conducting parts connected to one pole

ted from the slab with mica or micanite and the slab similarly insulated from its framework No semi insulating material, and is the

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

Yes, individual fuses to voltmeter, pilot or earth lamp Yes, connections of switches Yes

Switchgear, description of switchgear for each generator and each outgoing circuit, and arrangement of equalizer switches 150 KW. & 37.5 KW.

Generators are each fitted with a double pole circuit breaker with overload and reverse

moment release together with a single pole equalizer switch interlocked with circuit breaker

per Rule, and an enclosed fuse and knife switch on each pole... 3.5 KW generator fitted

a single pole circuit breaker with overload release plus a double pole knife switch &

... each out-going circuit, a fuse on each pole and a double pole switch.

instruments on main switchboard 8 ammeters 3 voltmeters / synchronising device for paralleling purposes.

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

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

in 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

[illegible]

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 ZOSEN KASEI, LTD.
GENERAL MANAGER.

Electrical Engineers.

Date 18 AUG 1926

COMPASSES.

Distance between electric generators or motors and standard compass About 10 feet from Gyro-pilot compass.

Distance between electric generators or motors and steering compass About 3 feet " " "

The nearest cables to the compasses are as follows:-

A cable carrying 0.1 Ampères One feet from standard compass. One feet from steering compass. For Compass light.

A cable carrying 1.0 Ampères Twelve feet from standard compass. Three feet from steering compass. For Gyro-pilot motor

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. 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 No. degrees on Any and Every course in the case of the standard

compass, and about 18 degrees on Westerly or Easterly course in the case of the steering compass.

NAGASAKI WORKS, MITSUBISHI ZOSEN KASEI, LTD.
GENERAL MANAGER.

Builder's Signature.

Date 18 AUG 1926

Is this installation a duplicate of a previous case Yes If so, state name of vessel M/V "Santos Maru", and M/V "La Plata Maru".

General Remarks (State quality of workmanship, opinions as to class, &c. The materials and workmanship are good

and the installation as a whole complies with the Rules, and special instructions & tests

tests have been carried out accordingly and it is the opinion of the undersigned that the

vessel be given the highest class.

Plans sent under separate cover of:- "Load Distribution Diagram", and "Connection Diagram

on Main Switchboard".

Total Capacity of Generators 491 Kilowatts

The amount of Fee ... £ 670:60 : When applied for, 14. 8. 1926

Travelling Expenses (if any) £ : : When received, AUG 21 1926

Committee's Minute TUES. 21 SEP 1926

Assigned

W. Kimber
Surveyor to Lloyd's Register of Shipping.

pt. 9a.

Report of NAGASAKI. (1). Continuation of Report No. 1547 dated 14th Aug. 26. on the

Steel Twin Screw Motor Vessel "MONTEVIDEO MARU".

Generator, Lighting, Heating Condensers.

| No. Ref. | Description. | Effective No. of Set | Area of each Co- nenser Sq.in. | Composition of Strand. | | Total Maximum Current Amps. | Approx Length (Lead & Return) Feet. | Insula- ted. with. | How Protec- ted. | Re- marks. |
|----------|--------------------------------|----------------------------|-----------------------------------------|---------------------------|-------|--------------------------------------|-------------------------------------------------|--------------------------|------------------------|---------------|
| | | | | No. | Dia. | | | | | |
| 1.2.3. | Main generator | 3 | .605x2 | 91x2 | .092" | 666 each | 130' | Rubber | L.A.W. | |
| 4 | Aux. " | 1 | .186 | 37 | .08" | 166 | " | " | " | |
| 5 | Emergency generator | 1 | .00715 | 7 | .036 | 15.6 | " | " | " | |
| 13 | Fuse board forward | 1 | .405x2 | 61x2 | .092" | 450 | 400' | " | " | |
| 16 | Fuse box mid winch | 1 | .186 | 37 | .08" | 170 | 200' | " | " | |
| 22 | Fuse board aft | 1 | .405 | 61 | .092" | 280 | 420' | " | " | |
| 25 | Cooking fan switch | 1 | .00715 | 7 | .036" | 9.4 | 100' | " | " | |
| 27 | Baggage lift switch | 1 | " | 7 | " | 5.1 | 20' | " | " | |
| 31 | Junction box ord. fan | 1 | .0127 | 7 | .048" | 30.6 | 160' | " | " | |
| 35 | Cut out Elec. iron | 1 | .00715 | 7 | .036" | 9 | 40' | " | " | |
| 38 | Junction box laundry motor | 1 | .0225 | 7 | .064" | 41 | 580' | " | " | |
| 45 | Junction box ref. motor | 1 | .605 | 91 | .092" | 289 | 67' | " | " | |
| 57 | Junction box oil pump | 1 | .0127 | 7 | .048" | 25.1 | 80' | " | " | |
| 67 | Auxiliary switch board | 1 | .405 | 61 | .092" | 250 | 110' | " | " | |
| 77 | " " | 1 | " | " | " | " | " | " | " | |
| 79.80 | Fore Cargo lamp | 2 | .0047 | 168 | .006" | 1 each | 100' | " | F.C. | |
| 81 | Socket for above | 2 | .00322 | 1 | .064" | 2 | 40' | " | L.A.W. | |
| 82.83.84 | Fore cargo lamp | 3 | .0047 | 168 | .006" | 2.3 | 100' | " | F.C. | |
| 85 | Socket for above | 3 | .00322 | 1 | .064" | 4.3 | 60' | " | L.A.W. | |
| 86.87 | Midship cargo lamp | 2 | .0047 | 168 | .006" | 1 each | 100' | " | F.C. | |
| 88 | Socket for above | 2 | .00322 | 1 | .064" | 2 | 250' | " | L.A.W. | |
| 89 | Submain board S 6 | 1 | .00715 | 7 | .036" | 8.3 | 380' | " | " | |
| 90.91 | Aft cargo lamp | 2 | .0047 | 168 | .006" | 1 each | 100' | " | F.C. | |
| 92 | Socket for above | 2 | .00322 | 1 | .064" | 2 | 45' | " | L.A.W. | |
| 94.95 | Aft cargo lamp | 3 | .0047 | 168 | .006" | 2.3 | 100' | " | F.C. | |
| 96 | Socket for above | 3 | .00322 | 1 | .064" | 4.3 | 45' | " | L.A.W. | |
| 97 | Submain board S 7 | 1 | .00715 | 7 | .036" | 6.3 | 370' | " | " | |
| 99. | 1 KW.Elec.heater social hall | 2 | .00322 | 1 | .064" | 4.5 each | 50' | " | L.W. | |
| 101 | 1.5 KW.Elec heater social hall | 2 | .00322 | 1 | " | 6.8 | 125' | " | " | |
| 102 | Submain board S 10 | 1 | .0127 | 7 | .048" | 22.7 | 100' | " | L.A.W. | |
| 103 | 2 KW.Elec heater smoke room | 1 | .00322 | 1 | .064" | 9.1 | 60' | " | L.W. | |
| 104.105 | 1.5 KW.Elec Heater smoke room | 2 | .00322 | 1 | .064" | 6.8 | 110' | " | " | |
| 106 | Submain board S 11 | 1 | .0127 | 7 | .048" | 22.7 | 270' | " | L.A.W. | |
| 107 | Distributing board No.1 | 1 | .00322 | 1 | .064" | 6.8 | 20' | " | " | |
| 108 | " " " 2 | 1 | " | 1 | " | 7.4 | 200' | " | " | |
| 109 | " " " 3 | 1 | " | 1 | " | 3.1 | 20' | " | " | |
| 110 | " " " 4 | 1 | " | 1 | " | 7.8 | 20' | " | " | |
| 111 | " " " 5 | 1 | " | 1 | " | 4.25 | 40' | " | " | |
| 112 | " " " 6 | 1 | " | 1 | " | 5.1 | 20' | " | " | |
| 113 | Submain board No.S 1 | 1 | .0226 | 7 | " | 32.05 | 125' | " | " | |
| 114 | Distributing board No.7 | 1 | .00322 | 1 | " | 2.25 | 100' | " | " | |
| 115 | " " " 8 | 1 | " | 1 | " | 6.25 | 20' | " | " | |
| 116 | " " " 9 | 1 | " | 1 | " | 9 | 210' | " | " | |
| 117 | " " " 10 | 1 | .00715 | 7 | .036" | 11.25 | 325 | " | " | |
| 118 | " " " 11 | 1 | .00322 | 1 | .064" | 6.9 | 200' | " | " | |
| 119 | Submain board No.S 2 | 1 | .0225 | 7 | " | 28.75 | 210' | " | " | |
| 120 | Distributing board No.12 | 1 | .00322 | 1 | " | 6 | 270' | " | " | |
| 121 | " " " 13 | 1 | " | 1 | " | 4.95 | 80' | " | " | |
| 122 | " " " 14 | 1 | " | 1 | " | 4.5 | 20' | " | " | |
| 123 | " " " 15 | 1 | " | 1 | " | 7.7 | 110' | " | " | |
| 124 | " " " 16 | 1 | " | 1 | " | 3.2 | 460' | " | " | |
| 125 | " " " 17 | 1 | " | 1 | " | 4.95 | 500' | " | " | |
| 126 | Submain board No.S 3 | 1 | .0225 | 7 | " | 31.3 | 110' | " | " | |
| 127 | Distributing board No.18 | 1 | .00322 | 1 | " | 4.2 | 70' | " | " | |
| 128 | " " " 19 | 1 | " | 1 | " | 7.5 | 170' | " | " | |
| 129 | " " " 20 | 1 | " | 1 | " | 4.85 | 20' | " | " | |
| 130 | Submain board No.S 4 | 1 | .00715 | 7 | .036" | 16.55 | 140' | " | " | |
| 131 | Distributing board No.21 | 1 | .00322 | 1 | .064" | 4.6 | 20' | " | " | |
| 132 | " " " 22 | 1 | " | 1 | " | 6.85 | 20' | " | " | |
| 133 | 500 watt lamp socket | 1 | " | 1 | " | 2.25 | 125' | " | " | |
| 134 | 500 watt lamp | 1 | .0047 | 168 | .006" | 2.25 | 100' | " | F.C. | |
| 135 | Submain board No.S 5 | 1 | .00715 | 7 | .036" | 13.7 | 40' | " | L.A.W. | |
| 136 | Navigation sig.Indicator | 1 | .00322 | 1 | .064" | 2.5 | 325' | " | " | |
| 137 | Distributing board No.23 | 1 | " | 1 | " | 4.2 | 20' | " | " | |
| 138 | Cut out | 1 | " | 1 | " | 1.5 | 215' | " | " | |
| 139 | Distributing board No.24 | 1 | " | 1 | " | 4 | 20' | " | " | |
| 140 | Submain board No.S 8 | 1 | .00715 | 7 | .036" | 9.7 | 60' | " | " | |
| 141 | Distributing board No.25 | 1 | .00322 | 1 | .064" | 4.3 | 400' | " | " | |
| 142 | " " " 26 | 1 | " | 1 | " | 4.2 | 360' | " | " | |
| 143 | " " " 27 | 1 | " | 1 | " | 4.4 | 140' | " | " | |
| 144 | " " " 28 | 1 | " | 1 | " | 4.4 | 20' | " | " | |
| 145 | Submain board No.S 9 | 1 | .0225 | 7 | " | 27 | 110' | " | " | |
| 146 | 150 KW.generator | 3 | .605 | 91 | .092" | 65' | " | " | " | |
| 147 | 87.5 KW.generator | 1 | .186 | 37 | .08" | 65' | " | " | " | |

L.A.W. = Lead covered & armoured copper wire.
F.C. = Flexible Cord.
L.W. = Lead covered copper wire.

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Steel Twin Screw Motor Vessel "M O N T E V I D E O M A R U"

Motor Conductors.

| Ref.No. | Discription. | Effective No of Set. | Area of each Cond'sr | Composition of Strand | | Total Maximum current Amperes. | Approx Length (Lead & Return) feet. | Insula- ted with | How protec- ted | Re- Marks. |
|---------|-------------------------|----------------------------|----------------------------|--------------------------|------|-----------------------------------------|-------------------------------------------------|------------------------|-----------------------|---------------|
| | | | | Sq.in. | No. | Dia. | | | | |
| 6 | Windlass | 1 | .406 | ✓ | 61 | .092" | 216 | 140' | Rubber | L.A.W. |
| 7-12 | Winches foreward | 6 | .119 | ✓ | 37 | .064" | 111 | 65' | " | " |
| 14,15 | " midship | 2 | " | ✓ | " | " | " | 30' | " | " |
| 17.20 | " aft | 4 | " | ✓ | " | " | " | 35' | " | " |
| 21 | Warping winch | 1 | .186 | ✓ | " | .08" | 145 | 120' | " | " |
| 28-30 | Ventilator fan | 3 | .00715 | ✓ | 7 | .036" | 8.5 | 180' | " | " |
| 26 | Baggage lift | 1 | " | ✓ | 7 | " | 5.1 | 12' | " | " |
| 23.24 | Cooking range fan | 2 | " | ✓ | " | " | 4.7 | 23' | " | " |
| 37 | Washing machine | 1 | " | ✓ | " | " | 12.7 | " | " | " |
| 36 | Hydroextrator | 1 | " | ✓ | " | " | 20! | 8' | " | " |
| 32-34 | Electric iron | 3 | .00322 | ✓ | 1 | .064" | 9 | 10' | " | " |
| 39.40 | Steering engine | 2 | .119 | ✓ | 37 | " | 97 | 350' | " | " |
| 41.42 | Ref.Machine | 2 | .186 | ✓ | " | .08" | 124 | 12' | " | " |
| 43.44 | Brine pumps | 2 | .00715 | ✓ | 7 | .036" | 20.5 | 12' | " | " |
| 48 | Gyro pilot | 1 | .00322 | ✓ | 1 | .064" | 1.35 | 250' | " | " |
| 46 | Gyro compass | 1 | .00715 | ✓ | 7 | .036" | 4 | 130' | " | " |
| 47 | Wireless telegraph | 1 | " | ✓ | 7 | " | 20 | 240' | " | " |
| 48.49 | Turbo blower | 2 | .605x2 | ✓ | 91x2 | .092" | 845 | 35' | " | " |
| 50.51 | Aux. air comp. | 2 | .405x2 | ✓ | 61x2 | " | 528 | 55' | " | " |
| 52 | Work shop motor | 1 | .00715 | ✓ | 7 | .036" | 21.5 | 70' | " | " |
| 53.54 | Oil pump | 2 | " | ✓ | 7 | " | 4.78 | 20' | " | " |
| 55.56 | Oil purifier | 2 | " | ✓ | 7 | " | 8 | 20' | " | " |
| 58.68 | Jacket cool. water pump | 2 | .119 | ✓ | 37 | .064" | 86 | 90' | " | " |
| 59.69 | Piston cool. W. pump | 2 | .0344 | ✓ | 19 | .048" | 58 | 85' | " | " |
| 60.70 | Bilge pump | 2 | .0127 | ✓ | 7 | .048" | 27.4 | 35' | " | " |
| 61.71 | Lub. oil pump | 2 | " | ✓ | 7 | " | 35 | 85' | " | " |
| 62.72 | Fuel oil pump | 2 | .00715 | ✓ | 7 | .036" | 17.2 | 110' | " | " |
| 63 | Ballast pump | 1 | .119 | ✓ | 37 | .064" | 134 | 50' | " | " |
| 64 | Cold sanitary pump | 1 | .0344 | ✓ | 19 | .048" | 56 | 50' | " | " |
| 65 | Aux. Eng. Jacket C.W.P. | 1 | .00715 | ✓ | 7 | .036" | 14.2 | 90' | " | " |
| 66 | Lub. oil purifier | 1 | " | ✓ | 7 | " | 12.3 | 95' | " | " |
| 73 | General serv. pump | 1 | .186 | ✓ | 37 | .08" | 154 | 40' | " | " |
| 74 | Hot sanitary pump | 1 | .0225 | ✓ | 7 | .064" | 36 | 40' | " | " |
| 75 | Fresh water pump | 1 | .00715 | ✓ | 7 | .036" | 13.2 | 140' | " | " |
| 76 | Aux. Eng. Lub. Oil pump | 1 | " | ✓ | 7 | " | 16 | 95' | " | " |
| 78 | Motor siren | 1 | .0127 | ✓ | 7 | .048" | 32 | 430' | " | " |

750 Amp.
(Max. in
service)

L. Kimber.



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