

REPORT ON OIL ENGINE MACHINERY.

No. 1700

28 DEC 1929

Received at London Office

Date of writing Report 27th Nov. 29 When handed in at Local Office 27th Nov. 29 Port of NAGASAKI.

No. in Survey held at NAGASAKI.

Date, First Survey 11th June 1928. Last Survey 31st Oct. 1929.

Number of Visits 239.

Sup. on the ^{Single} ~~Twin~~ ^{Triple} ~~Quadruple~~ Screw vessel "BUENOS AIRES MARU".

Tons Gross 9,625.65
Net 5,854.27

uilt at Nagasaki. By whom built Mitsubishi Zosen Kaisha, Ltd. Yard No. 456. When built 1929.
ines made at Nagasaki. By whom made Mitsubishi Zosen Kaisha, Ltd. Engine No. 456. When made 1929.
key Boilers made at Nagasaki. By whom made Mitsubishi Zosen Kaisha, Ltd. Boiler No. 456. When made 1929.
e Horse Power 6,000. Owners Osaka Shosen Kaishiki Kaisha. Port belonging to Osaka.
Horse Power as per Rule 1,503. Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes
e for which vessel is intended South America.

ENGINES, &c.—Type of Engines Mitsubishi-Sulzer. 2 or 4 stroke cycle 2 Single or double acting Single
um pressure in cylinders 40 kg/cm² Diameter of cylinders 680 m/m Length of stroke 1000 m/m No. of cylinders 12 No. of cranks 12
of bearings, adjacent to the Crank, measured from inner edge to inner edge 860 m/m Is there a bearing between each crank Yes
tions per minute 120 Flywheel dia. 2200 m/m Weight 7.6 tons Means of ignition Compression Kind of fuel used Heavy fuel oil.
Shaft, dia. of journals as per Rule 425.1 m/m Crank pin dia. 450 m/m Crank Webs Mid. length breadth 590 m/m Thickness parallel to axis
as fitted 450 m/m Mid. length thickness 245 m/m Thickness around eye hole
eel Shaft, diameter as per Rule 425.1 m/m Intermediate Shafts, diameter as per Rule 311.6 m/m Thrust Shaft, diameter at collars as per Rule 327.2 m/m
as fitted 450 m/m as fitted 335 m/m as fitted 450 m/m
Shaft, diameter as per Rule / Screw Shaft, diameter as per Rule 339.6 m/m Is the shaft fitted with a continuous liner Yes
as fitted / as fitted 370 m/m
e Liners, thickness in way of bushes as per Rule 18 m/m Thickness between bushes as per rule 13.5 m/m Is the after end of the liner made watertight in the
as fitted 20 m/m as fitted 15 m/m
r boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner /
liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes
liners are fitted, is the shaft lapped or protected between the liners / Is an approved Oil Gland or other appliance fitted at the after

the tube shaft / Length of Bearing in Stern Bush next to and supporting propeller 1500 m/m
ler, dia. 13'-3" Pitch 15'-6" No. of blades 4 Material Bronze whether Moveable Yes Total Developed Surface 55 sq. feet
l of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched / Means of lubrication
a Thickness of cylinder liners 53 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
luching material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine /

Water Pumps, No. 2 Sea water pumps @ 250 M³/hr for jackets. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
2 Fresh " " 60 M³/hr for pistons.
umps worked from the Main Engines, No. / Diameter / Stroke / Can one be overhauled while the other is at work /
connected to the Main Bilge Line { No. and Size 2- 60 tons/hr. One- 120 tons/hr. One- 200 Cu.M /hr.
How driven Electric motor.

Pumps, No. and size One- 200 M³/hr. Lubricating Oil Pumps, including Spare Pump, No. and size 2- 6 M³/hr.- Crossheads.
2- 46 M³/hr. Mainbearings.
1- 2.5 " Transfer.
independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

No. and size:—In Machinery Spaces 2 @ 2". 4 @ 3 1/2". 2 @ 3 1/2" (hatbox) 2 @ 2" No.2 Coff. 1 @ 2" No.3 Coff.
s, &c. No.1 Hold. 2 @ 3". No.2 Hold 2 @ 3 1/2". No.3 Hold 2 @ 3 1/2". No.4 Hold 1 @ 3 1/2". No.5 Hold 1 @ 3".
1 well 1 @ 2 1/2". Pipe passages 2 @ 2". No.1 Coff 1 @ 3". No.4 Coff 1 @ 2".
ndent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 9". 1 @ 8" (Emerg) 1 @ 5". 2 @ 4".

the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes. Yes Are the Bilge Suctions in the Machinery Spaces
easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
ea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both.

fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Above
ach fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
s pass through the bunkers / How are they protected /
s pass through the deep tanks / Have they been tested as per Rule /

ipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
angement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
ent to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork /
r Compressors, No. 4 No. of stages 3 Diameter 130/420/500 Stroke 400 Driven by Main engine.
y Air Compressors, No. 2 No. of stages 3 Diameters 75/295/340 Stroke 180 Driven by Elec.motor.
xiliary Air Compressors, No. 1 No. of stages 2 Diameters 35/110 Stroke 120 Driven by Hot bulb eng.

ng Air Pumps, No. 2 Turbo Blowers. Capacity 900 M³/min (each). Driven by Elec.motor.
Engines crank shafts, diameter as per Rule /
as fitted /

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
ernal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Man hole.
Hand hole.
e a drain arrangement fitted at the lowest part of each receiver Yes

Pressure Air Receivers, No. 4 4 2 Cubic capacity of each 2000 litre Internal diameter 775 m/m thickness 32.5 m/m
800 litre 540 m/m 16 m/m
150 litre 300 m/m 16 m/m
s, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 28-35 ton Working pressure by Rules 91.7 kg/cm²
sq.in. 4/8" 103.7 " 75 kg actual
g Air Receivers, No. 2 Total cubic capacity 6 cu.metres. Internal diameter 1200 m/m thickness 4/8" 103.7 " 75 kg actual
sq.in. 4/8" 103.7 " 75 kg actual
s, lap welded or riveted longitudinal joint T.R.D.B.S. Material Steel Range of tensile strength 28-35 ton Working pressure by Rules 478.6 lbs
sq.in. 4/8" 103.7 " 75 kg actual

IS A DONKEY BOILER FITTED? **Yes** If so, is a report now forwarded? **Yes**
 PLANS. Are approved plans forwarded herewith for Shafting **Yes** Receivers **Yes** Separate Tanks **Yes**
 Donkey Boilers **Yes** General Pumping Arrangements **Yes** Oil Fuel Burning Arrangements **Yes**

SPARE GEAR As per Rules and in addition (See separate list).

The foregoing is a correct description,

J. Grotora

1928/ June 11.22.29 Jul 4.9.11.13.18.26.28.31 Aug 3.13.14.16.20.24.25.31 Sep 1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31 Oct 1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31 Nov 1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31 Dec 1.2.3.4.5.6.7.8.9.10.11.12.13.14.15.16.17.18.19.20.21.22.23.24.25.26.27.28.29.30.31
 Dates of Survey while building { During progress of work in shops - 11.13.14.15.18.19.20.21.22.24.25.26.27.28.29.30.31 Feb 1.2.5.6.15.16.18.21.22.25.27 Mar 6.11.12.18.19.22.23.25.26.27.28.29.30.31 Apr 1.2.4.5.6.8.10.11.13.15.16.17.18.19.20.22.24.25.27.30 May 1.2.4.6.8.9.10.11.12.13.14.15.16.17.18.19.20.22.23.26.27.28.31 Sep 3.4.5.6.11.12.18.19.22.23.25.26.27.28.29.30.31
 Total No. of visits Oct 1.4.5.10.12.16.21.23.25.26.28.29.31. Total No. of visits 239.
 Dates of Examination of principal parts—Cylinders 28-9-28 to 17-9-28 Covers 15-11-28 Pistons 20-9-28 to 6-10-28 Connecting rods 4-10-28
 Crank shaft 14-6-28 to 15-7-28 (Prague) Flywheel shaft and Thrust shaft 7-5-28 (Dusseldorf) Intermediate shafts 19-12-28 to 16-4-29 Tube shaft /
 Screw shaft 4-4-29 to 30-4-29 Propeller 9-8-29 Stern tube 1. 11-4-29. Engine seatings 14-5-29. Engines holding down bolts 20-6-29
 Completion of fitting sea connections 8-5-29 Completion of pumping arrangements 28-8-29 Engines tried under working conditions 4-10-29
 Crank shaft, Material Ingot steel Identification Mark P- L.No.6977 & 7002 GM 14-6-28 & 15-7-28 Flywheel shaft, Material Ingot steel Identification Mark S- L.No.800
 Thrust shaft, Material Ingot steel Identification Mark See Flywheel Intermediate shafts, Material Ingot steel Identification Marks See hel
 Tube shaft, Material / Identification Mark / Screw shaft, Material Ingot steel. Identification Mark P- L.No.2498
 Spare. L.No.2539 K
 Is the flash point of the oil to be used over 150° F. **Yes**
 Is this machinery duplicate of a previous case **No.** If so, state name of vessel /

General Remarks (State quality of workmanship, opinions as to class, &c.)

Identification Marks:- Intermediate shafts.

Starbd. LLOYD'S No. 4601 GA 30-1-29.
 " 4602 GA "
 " 487 KK 16-4-29.
 " 13447 KK 5-4-29.
 " 485 KK 5-2-29.
 " 484 GA 30-1-29
 " 486 KK 18-3-29.

Port. LLOYD'S No. 4599 GA 30-1-29.
 " 4589 KK 18-3-29.
 " 513 KK "
 " 488 KK 16-4-29.
 " 516 KK 5-4-29.
 " 4588 KK 5-2-29.
 " 4600 GA 30-1-29.

The machinery has been constructed under Special survey and installed in the vessel in accordance with the Rules and Approved plans.

The materials and workmanship are good and the machinery has been examined under working conditions and found satisfactory.

The machinery of this vessel is eligible in my opinion to have the record of **LMO 10-**

The amount of Entry Fee **£ 60:63** When applied for, **5. 11. 1929**
 Special ... **£ 2085:29**
 Donkey Boiler Fee ... **£ 63:66** When received,
 Air Vessels. ... **£ 95:49** **18. 11. 1929**
 Travelling Expenses (if any) £

Committee's Minute

Assigned

TUE. 7 JAN 1930

LMO 10-29 Oil Engines

200 lbs

George Anderson & K. Kish
 Engineer Surveyor to Lloyd's Register of Shipping



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