

REPORT ON OIL ENGINE MACHINERY.

No. 291

20 APR 1954

Received at London Office

Date of writing Report 12, Dec 1953 When handed in at Local Office 19 Port of Kobe Shimonoseki

No. in Survey held at Nagasaki Date, First Survey 30th July 1951 Last Survey 14th Nov 1953
Reg. Book. Number of Visits 76

Single motor
on the Twin Screw vessel
Triple
Quadruple
" Victoria Maru "

Gross 7620.32
Net 4362.11

Tons

built at Nagasaki By whom built Nagasaki Zosen Sho Mitsubishi Zosen K.K. Yard No. 1437 When built 1953 11 mo.

Engines made at Nagasaki By whom made Nagasaki Zosen Sho Mitsubishi Zosen K.K. Engine No. 251/260 When made 1953 8 mo.

Donkey Boilers made at Nagasaki By whom made Nagasaki Zosen Sho Mitsubishi Zosen K.K. Boiler No. 1383 When made 1953 11 mo.

Brake Horse Power { Maximum 2x4300 ✓
Service Owners Mitsubishi Kaisha K.K. Port belonging to Tokyo

M.N. as per Rule 1720 ✓ Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Ocean going

IL ENGINES, &c.—Type of Engines 6 MS 72/125 2 or 4 stroke cycle 2 ✓ Single or double acting Single ✓

Maximum pressure in cylinders 45 Kgs/cm² ✓ Diameter of cylinders 720 mm ✓ Length of stroke 1250 mm ✓ No. of cylinders 6 per eng ✓ No. of cranks 6 per eng

Mean Indicated Pressure 6.04 Kgs/cm² ✓ Span of bearings (i.e., distance between inner edges of bearings in
way of a crank) 960 mm ✓ Is there a bearing between each crank Yes Revolutions per minute { Maximum 128 ✓
Service

Flywheel dia. 2500 mm ✓ Weight 4480 Kgs ✓ Moment of inertia of flywheel (lbs.-in² or Kg.-cm²) 17000 Means of ignition Compression Kind of fuel used Heavy oil

" " " " balance wts. (" " " ")

Crank Shaft, { Solid forged
Semi built
All built dis. of journals as per Rule 440.3 mm
as fitted 490 mm ✓ Crank pin dia 480 mm ✓ Crank webs Mid. length breadth 800 mm
Mid. length thickness 305 mm shrunk Thickness parallel to axis 305 mm
Thickness around eyehole 217.5 mm

Flywheel Shaft, diameter as per Rule
as fitted Intermediate Shafts, diameter as per Rule 317 mm
as fitted 338 mm ✓ Thrust Shaft, diameter at collars as per Rule 440 mm
as fitted 470 mm ✓
375 mm at coupling

Tube Shaft, diameter as per Rule
as fitted Screw Shaft, diameter as per Rule 363 mm
as fitted 370 mm ✓
355 mm at coupling Is the { tube
screw } shaft fitted with a continuous liner { Yes ✓

Bronze Liners, thickness in way of bushes as per Rule 19 mm
as fitted 22 mm ✓ Thickness between bushes as per Rule 14 mm
as fitted 17 mm Is the after end of the liner made watertight in the
propeller boss Yes ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length ✓

If the 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. If two liners are fitted, is the shaft lapped or protected between the liners. Is an approved Oil Gland fitted at the after
end of stern tube. If so, state type Length of bearing in Stern Bush next to and supporting propeller 1480 mm ✓

Propeller, dia 4400 mm ✓ Pitch 4350 mm No. of blades 4 Material Mn Bronze whether moveable Movable Total developed surface 6661 sq. feet

Moment of inertia of propeller including entrained water (lbs.-in² or Kg.-cm²) 96400 Kgs.-cm² Kind of damper, if fitted

Method of reversing Engines Hand operation Is a governor or other arrangement fitted to prevent racing of the engine Yes ✓ Means of
lubrication Forced Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves Yes ✓ Are the exhaust pipes and silencers water cooled
or lagged with non-conducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
back to the engine. Pre-cooling by lub. oil

Cooling Water Pumps, No. and how driven Total 3 Electric motor driven Working F.W. ✓

S.W. 2-360³/hr. Spare F.W. S.W. 1-160³/hr. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. and capacity None Jacket cooling Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and capacity of each 2-360³/hr. 2-160³/hr. 1-30³/hr.
How driven Electric motor drive

Is the cooling water led to the bilges No If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
arrangements

Ballast Pumps, No. and capacity 2-160³/hr. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2-270³/hr.

Are two independent means arranged for circulating water through the Oil Cooler Yes ✓ Branch Bilge Suctions

No. and size:—In machinery spaces 3-90 mm dia ✓ 2-130 mm dia ✓ 3-50 mm dia ✓ 1-240 mm dia ✓ In pump room

In holds, &c. Nos. 12 & 3 Holds; 2-80 mm dia each No. 5 Hold; 1-80 mm dia No. 6 Hold; 2-80 mm dia No. 1 Hold (off); 1-50 mm dia Eng room (d. off); 1-50 mm dia Eng room (off); 2-50 mm dia Shaft tunnel: 1-90 mm dia ✓

Direct Bilge Suctions to the engine room bilges, No. and size 2-90 mm dia ✓ 1-240 mm dia ✓

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes ✓ Are the bilge suction in the machinery spaces led from easily
accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes ✓

Are all Sea Connections fitted direct on the skin of the Ship Yes ✓ Are they fitted with valves or cocks Yes ✓ Are they 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 Below

Are they each 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

What pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks Heating coil ✓ Have they been tested as per Rule Yes ✓

Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times ?

Is the arrangement 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 compartment to another Yes ✓ Is the shaft tunnel watertight Yes ✓ Is it fitted with a watertight door Yes ✓ worked from lower

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No. 2 ✓ No. of stages 3 diameters 125 360/365 360/365 stroke 220 mm driven by Dynamo Engines

Auxiliary Air Compressors, No. 1 ✓ No. of stages 2 diameters 28 296 stroke 55 mm driven by Kerosene Engine

Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

What provision is made for first charging the air receivers Auxiliary Air Compressor described above

Scavenging Air Pumps or Blowers, No. One for each working cylinder How driven driven by Main Engine

Auxiliary Engines Have they been made under survey Yes Engine Nos. 264 265 266

Makers name Nagasaki Zosen Sho Mitsubishi Zosen K.K. Position of each in engine room 5th (No. 264) 6th (No. 265) 7th (No. 266) on Engine flat

Report No. Rpt 14C No. 291

012888 - 012897 - 0198

SPARE GEAR.

The foregoing is a correct description.

Dates of examination of principal parts—Cylinders 25.5.53 6.6.53 Covers 22.5.53 3.4.53 Pistons 16.5.53 11.7.53 Rods - Connecting rods 27.5.53 14.7.53
Crank shafts 22.5.53 3.4.53 Flywheel shaft - Thrust shafts 25.5.53 3.4.53 Intermediate shafts 14.5.53 24.8.53 Tube shaft -
Screw shafts 2.8.53 22.8.53 Propellers 12.8.53 3.8.53 Stern tube 19.5.53 18.8.53 Engine seatings 1.9.53 Engine holding down bolts 1.6.9.53
Completion of fitting sea connections 27.8.53 Completion of pumping arrangements 4.11.53 Engines tried under working conditions 9.11.53
Crank shafts material Forged Steel Identification marks M10520F 22.5.53 40. Flywheel shaft, material, - Identification mark -
Thrust shafts material Forged Steel Identification marks Y2035 23.5.53 45. Intermediate shafts, material Forged Steel Identification marks M10461 1.11.53
Tube shaft, material - Identification mark - Screw shafts, material Forged Steel Identification marks M10462 8 2.8.53 40.
Identification marks on air receivers No. 52, No. AR.10541 4000s TEST 45 Kgs. W.P. 30 Kgs. Y.H. R. 6.8.53 No. 53, No. AR.10542 4000s TEST 45 Kgs. W.P. 30 Kgs. Y.H. R. 12.8.53
No. 21, No. AR.10543 4000s TEST 45 Kgs. W.P. 30 Kgs. Y.H. R. 22.8.53

Is this machinery duplicate of a previous case... Yes... If so, state name of vessel ASHORI ARMANARI, TAYSHIMANARI, GHATAMARI, ARTAHARI

A notice board has been fitted and the tachometer marked warning against continuous operation of the engine below 31 R.P.M.

DB (WT) 100 ch.

CL.