

YOKOHAMA 1151

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

Additional to Rpt. No. 3023

DEC 5 1955
SEP 27 1955

Received at London Office

Date of writing Report 19... When handed in at Local Office 27 1955 Port of KOBE

No. in Survey held at Harima and Nagoya Date, First Survey 1st January 1953 Last Survey 28th July, 1955

Reg. Book. Single on the Triple Quadruple Screw vessel M.V. "TEN-EI MARU" Tons { Gross 7628.61 Net 4408.30

Built at Nagoya By whom built Nagoya Shipbuilding Co., Ltd. Yard No. 120 When built 1955 7mo

Engines made at Aioi, Japan By whom made Harima S.B. & Eng., Co., Ltd. Engine No. 133 When made 1955 4mo

Donkey Boilers made at Kobe By whom made Kawasaki Dockyard Co., Ltd. Boiler No. B617 When made 1955 7mo

Brake Horse Power 6800 Owners Kyoei Tanker Co., Ltd. Port belonging to Kobe

M.N. Power as per Rule 1360 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Ocean Going - Dry and Perishable Cargo.

OIL ENGINES, &c. —Type of Engines 2 or 4 stroke cycle Single or double acting Single or double acting

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

Mean Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured from inner edge to inner edge Is there a bearing between each crank Revolutions per minute

Flywheel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm.²) Means of ignition Kind of fuel used

Crank Shaft, Solid forged Semi built All built dia. of journals as per Rule as fitted Crank pin dia. Crank webs Mid. length breadth shrunk Thickness parallel to axis Mid. length thickness Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as fitted as per Rule

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner

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

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 or other appliance fitted at the after end of tube shaft If so, state type Length of bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether moveable Total developed surface sq. feet

Moment of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted

Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with non-conducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and size How driven

Is the cooling water led to the bilges 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 size Power Driven Lubricating Oil Pumps, including spare pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces In pump room

In holds, &c. No. 1 No. 2 No. 3 No. 4 No. 5 D.T. Shaft tunnel Shaft tunnel
2 x 80mm, 2 x 80mm, 2 x 80mm, 2 x 50mm, 2 x 90mm, 2 x 80mm, 2 x 80mm, 1 x 50mm, 1 x 80mm

Independent Power Pump Direct Suctions to the engine room bilges, No. and size

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes 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

Are all Sea Connections fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the overboard discharges above or below the deep water line

Are they each fitted with a discharge valve always accessible on the plating of the vessel Are the blow off cocks fitted with a spigot and brass covering plate

What pipes pass through the bunkers How are they protected

What pipes pass through the deep tanks Have they been tested as per Rule

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 Is the shaft tunnel watertight Is it fitted with a watertight door worked from

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. No. of stages diameters stroke driven by

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

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

What provision is made for first charging the air receivers

Scavenging Air Pumps, No. diameter stroke driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position

Have the auxiliary engines been constructed under special survey Is a report sent herewith



0120-90210-86821

AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....
 Can the internal surfaces of the receivers be examined and cleaned..... Is a drain fitted at the lowest part of each receiver.....
Injection Air Receivers, No...... Cubic capacity of each..... Internal diameter..... thickness.....
 Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....
Starting Air Receivers, No...... Total cubic capacity..... Internal diameter..... thickness.....
 Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....

IS A DONKEY BOILER FITTED..... If so, is a report now forwarded.....
 Is the donkey boiler intended to be used for domestic purposes only.....

PLANS. Are approved plans forwarded herewith for shafting..... Receivers..... Separate fuel tanks.....
 (If not, state date of approval)
 Donkey boilers..... General pumping arrangements..... Pumping arrangements in machinery space.....
 Oil fuel burning arrangements.....
 Have Torsional Vibration characteristics been approved..... Date of approval.....

SPARE GEAR.

Has the spare gear required by the Rules been supplied.....
 State the principal additional spare gear supplied.....

REMARKS:— MAIN ENGINE CRANK CASE EXPLOSION RELIEF DEVICE FITTED ACCORDING TO THE RULE.....

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - }
 Total No. of visits.....
 Dates of examination of principal parts—Cylinders..... Covers..... Pistons..... Rods..... Connecting rods.....
 Crank shaft..... Flywheel shaft..... Thrust shaft..... Intermediate shafts..... Tube shaft.....
 Screw shaft..... Propeller..... Stern tube..... Engine seatings..... Engine holding down bolts.....
 Completion of fitting sea connections..... Completion of pumping arrangements..... Engines tried under working conditions.....
 Crank shaft, material..... Identification mark..... Flywheel shaft, material..... Identification mark.....
 Thrust shaft, material..... Identification mark..... Intermediate shafts, material..... Identification marks.....
 Tube shaft, material..... Identification mark..... Screw shaft, material..... Identification mark.....
 Identification marks on air receivers.....

Welded receivers, state Makers' Name.....
 Is the flash point of the oil to be used over 150°F.....
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with.....
 Description of fire extinguishing apparatus fitted.....
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo..... If so, have the requirements of the Rules been complied with.....
 If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with.....
 Is this machinery duplicate of a previous case..... If so, state name of vessel.....

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.....)
 Exhaust Gas Economizer of this vessel has been constructed under Special Survey in accordance with the Rules, Approved Plans and Secretary's letters. The workmanship and material are sound and good. (See Kobe Report 10, No.M-24155, 29-7-55).

Certificate (if required) to be sent to.....
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £ : :
 Special ... £ : : When applied for 19
 Donkey Boiler Fee... £ : : When received 19
 Travelling Expenses (if any) £

FRIDAY 16 DEC 1955

Committee's Minute.....
 Assigned..... See Rpt. 46.

G. Kajima
 Engineer Surveyor to Lloyd's Register of Shipping.

 Lloyd's Register Foundation