b.

REPORT ON OIL ENGINE MACHINERY.

No. 8433.

Received at London Office 25 JAN 1934

itting Report 29·12·33. 19 When handed in at Local Office 19 Port of KOBE.

Survey held at KOBE AND HARIMA. Date, First Survey 15·12·32. Last Survey 18·12·33. 19

Number of Visits 45

on the Single / ~~Twin~~ / ~~Triple~~ / ~~Quadruple~~ Screw vessel "KOMAKI MARU". Tons Gross 6468·06. Net 3812·37

HARIMA. By whom built HARIMA S.B & ENG Co Ld. Yard No. 189. When built 1933.

made at KOBE. By whom made KOBE STEEL WORKS. LD KOBE Engine No. ✓. When made 1933.

Boiler made at HARIMA. By whom made HARIMA. S.B & ENG Co. LD. Boiler No. ✓. When made 1933.

Horse Power 7600. Owners KOKUSAI KISEN KABUSHIKI KAISHA. Port belonging to OSAKA.

orse Power as per Rule 2185. Is Refrigerating Machinery fitted for cargo purposes NO. Is Electric Light fitted YES.

or which vessel is intended OCEAN GOING. 29 15/16" 47½"

VGINES, &c.—Type of Engines SULZER "7DSD76" SOLID INJECTION WITH DIRECT DRIVEN SCAVENGING PUMP. 2 or ~~4~~ stroke cycle 2 Single or double acting DOUBLE.

pressure in cylinders 48 kg/cm² Diameter of cylinders 760 mm. Length of stroke 1200mm No. of cylinders 7. No. of cranks 7.

arings, adjacent to the Crank, measured from inner edge to inner edge 1020 mm. Is there a bearing between each crank YES.

per minute 113. Flywheel dia. 2·740 m. Weight 8·590 Kgs. Means of ignition AIRLESS INJECTION Kind of fuel used HEAVY OIL.

aft, dia. of journals as per Rule AS APPROVED. as fitted 510 mm. Crank pin dia. 510 mm. Crank Webs Mid. length breadth 1000 mm. Mid. length thickness 320 mm. shrunk Thickness parallel to axis 320 mm. Thickness around eyehole 244 mm.

Shaft, diameter as per Rule AS APPROVED. as fitted 510 m.m. Intermediate Shafts, diameter as per Rule 417·2. as fitted 424 mm. Thrust Shaft, diameter at collars as per Rule 438·2 mm. as fitted 445 mm.

ft, diameter as per Rule ✓. as fitted ✓. Screw Shaft, diameter as per Rule 455·4 mm. as fitted 465 mm. Is the ~~tube~~ / screw shaft fitted with a continuous liner ✓. YES.

ners, thickness in way of bushes as per Rule 21·578 mm. as fitted 25 mm. Thickness between bushes as per rule 16·2 mm as fitted 18 mm. Is the after end of the liner made watertight in the

s YES. If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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 ✓.

s 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 the tube

. If so, state type ✓. Length of Bearing in Stern Bush next to and supporting propeller 2100 mm.

dia. 5500 mm. Pitch 4580. 5320. No. of blades 4. Material BRONZE whether Moveable YES. Total Developed Surface 9·88 sq. ~~ft~~ M.

reversing Engines DIRECT. Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

). Thickness of cylinder liners 40-45 mm. Are the cylinders fitted with safety valves YES. Are the exhaust pipes and silencers water cooled or lagged with

g 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 ✓.

ater Pumps, No. 2. SEAWATER. 2. FRESH WATER. Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES.

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

ected to the Main Bilge Line { No. and Size 1. GENERAL SERVICE. 205mm × 205mm. 1. BILGE 125mm × 140mm. 1 BILGE & BALLAST CENTRIFUGAL 8" SUC 250 T/HR. / How driven MOTOR DRIVEN.

nps, No. and size ONE CENT. 8" DIA SUC. 250 T/H. Lubricating Oil Pumps, including Spare Pump, No. and size 2. 70 CUB.M/HR. SUC 150 M/M DIA.

endent means arranged for circulating water through the Oil Cooler YES. ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

nd size:—In Machinery Spaces 2 - 200 mm. ✓ 2 - 140 mm. 4 - 90 mm. 4 - 65 mm. (COFFERDAM).

No 1 HOLD 2-3½". No 2 HOLD 2-3½". No 3 HOLD 2-3½" No 4A HOLD 2-3½". COFFERDAM 2-2½". No 4B HOLD 2-3½". No 5 HOLD 2-3½" No 6 2-3½". TUNNEL 1-2½". TUNNEL WELL 1-3½".

t Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 - 200 mm. 1 - 90 mm.

Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES. Are the Bilge Suctions in the Machinery Spaces

ly accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YES.

Connections fitted direct on the skin of the ship YES. ✓ Are they fitted with Valves or Cocks BOTH. ✓

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. ✓

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. ✓

ss through the bunkers NONE. How are they protected ✓.

ss through the deep tanks NONE. Have they been tested as per Rule ✓.

Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YES.

ment 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

another YES. ✓ Is the Shaft Tunnel watertight YES. ✓ Is it fitted with a watertight door YES. ✓ worked from DECK. ✓

el, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓.

ompressors, No.	✓.	No. of stages	✓.	Diameters	✓.	Stroke	✓.	Driven by	✓.
r Compressors, No.	2.	No. of stages	2	Diameters	310 + 340	Stroke	180	Driven by	AUX DIESEL ENGINE. ELECTRIC MOTOR.
ary Air Compressors, No.	1.	No. of stages	2	Diameters	240 + 125	Stroke	120	Driven by	EMERGENCY DIESEL ENGINE.
Air Pumps, No.	2.			Diameter	2100 mm.	Stroke	860 mm.	Driven by	MAIN ENGINE.
Engines crank shafts, diameter as per Rule					180 KW. 161·4 mm.		30 KW. 72·85 mm.		
as fitted					184 mm. ✓		100 mm.		

ECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule YES. ✓

nternal surfaces of the receivers be examined YES. ✓ What means are provided for cleaning their inner surfaces MANHOLE.

drain arrangement fitted at the lowest part of each receiver YES.

essure Air Receivers, No. ✓. Cubic capacity of each ✓. Internal diameter ✓. thickness ✓.

lap welded or riveted longitudinal joint ✓. Material ✓. Range of tensile strength ✓. Working pressure by Rules ✓.

Air Receivers, No. ✓ 2. Total cubic capacity 28 CUB.M. Internal diameter 1692 mm. ✓ thickness 30 mm. ✓

lap welded or riveted longitudinal joint RIVETED. ✓ Material STEEL. ✓ Range of tensile strength 44-50 Kg/m². Working pressure by Rules 32·31 Kg/m². ✓

IS A DONKEY BOILER FITTED? YES. If so, is a report now forwarded? YES.

PLANS. Are approved plans forwarded herewith for Shafting 23.6.32. (If not, state date of approval) Receivers 9.12.32. Separate Tanks 14.4.33.

Donkey Boiler 20.2.33. General Pumping Arrangements 15.6.33. Oil Fuel Burning Arrangements ✓.

SPARE GEAR 2 top cylinder covers complete with bolts & packing, 2 bottom cylinder covers complete with bo 2 upper & 2 lower cylinder liners; 3 sets of starting valves complete, 2 sets of fuel valves com for upper & lower cylds' 6 sets of cyld: cover safety valves, 18 top & bottom cyld cover bolts & nu 1 set of scavenging air valves, 2 sets of regulating valves; 2 sets of piston rods 2 pistons complete with rings, a number of piston rings, 2 sets of telescopic cooling pipes & packing, 1 set of reversing gear shaft & fittings complete; 2 crank pin, c & main bearing bolts & nuts, 1 set of top & bottom end brasses complete. set coupling bolts & nuts for crank, thrust & intermediate shafts; one crank con 6 sets of suction & delivery valves for scavenge pump. all working parts for air pump, 1 set of piston rings for each size of piston in air compressor, 1 set of & delivery valves for compressor. a large number of assorted nuts & bolts

The foregoing is a correct description,

G Shimoda
M. Nakagaki

Manufacturer.

Dates of Survey while building

During progress of work in shops - Oct 1932. 15. 27 Jan 1933 14. 17. 24. 31 Feb 4. 10. 13. 20, March 1. 7. 9. 14. 20. 28. April 2. 7. 10. 14. 17. 21. 22. 22. 27. 30 June 6. 8. 16. 21 July 5. 13. 15. 20. 26. 31.

During erection on board vessel - 24.4.33. 12.6.33 22.7.33. 4.8.33. 24.8.33. 25.9.33.

Total No. of visits 45

Dates of Examination of principal parts—Cylinders 16.2.33. Covers 16.2.33. Pistons 16.2.33. Rods 16.2.33. Connecting rods

Crank shaft 27.2.33. Flywheel shaft 10.4.33. Thrust shaft 25.2.33. Intermediate shafts 2.6.33. Tube shaft

Screw shaft 17.6.33. Propeller 27.6.33. Stern tube 27.6.33. Engine seatings 12.6.33. Engines holding down bolts 4

Completion of fitting sea connections 24.8.33. Completion of pumping arrangements 25.3.33. Engines tried under working conditions 28

Crank shaft, Material STEEL. Identification Mark LR Nos 662, 663. HDB. Flywheel shaft, Material STEEL. Identification Mark LR Nos 3

Thrust shaft, Material STEEL. Identification Mark LR Nos 3308. HAG. Intermediate shafts, Material STEEL. Identification Marks LR Nos 6

Tube shaft, Material ✓. Identification Mark ✓. Screw shaft, Material STEEL. Identification Mark LR Nos 69 LR Nos 69

Is the flash point of the oil to be used over 150° F. YES.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with YES.

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo YES. If so, have the requirements of the Rules been complied with Y

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.

This machinery has been constructed under Special Survey in accordance with the Rules approved plans. The materials and workmanship are good

On completion the machinery was efficiently installed in the vessel and tested under full workin conditions, and is eligible in our opinion for classification with the record of ✠LMC 12.33, TS. CL. 12.33 and II.B 100 LBS.

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 ... £ 6 : 0.0
Special ... YEN 2627.* £46. : 7.9
Donkey Boiler Fee ... £25 : 1.0
Travelling Expenses (if any) £ :

When applied for, *RX 7/10/33 8th Jan. 1934
When received, *only 27/10/1933
M 26.4.34

TUE 30 JAN 1934

Committee's Minute

+Lmb. 12-33 Oil Fuel C. DB. 100 lbs.

Assigned

CERTIFICATE WRITTEN

H. F. Garnett
Engineer Surveyor to Lloyd's Register of S