

REPORT ON OIL ENGINE MACHINERY.

No. 6632

10 DEC 1930

Received at London Office

Date of writing Report 16/11/30 19... When handed in at Local Office... Port of Hong Kong

No. in Survey held at Hong Kong Date, First Survey 13 June Last Survey 31 October 1930
Reg. Book. Number of Visits 15

on the Single Twin Triple Quadruple Screw vessel **"KURIMARAU"**

Tons { Gross 288.27
Net 167.70

Built at Hong Kong By whom built Hong Kong Shipyard Co. Ltd Yard No. 681 When built 1930
Engines made at Kiel, Germany By whom made Loewenfabrik, Deutz Engine No. 239185-90 When made 1930
Donkey Boilers made at - By whom made - Boiler No. - When made -
Brake Horse Power 330 Owners Louis Pacific Plantation Coy. Ltd. Port belonging to Tulagi, B.S.I.P.
Nom. Horse Power as per Rule 4570 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
Trade for which vessel is intended Australia & Solomon Islands

IL ENGINES, &c.—Type of Engines Heavy oil 2 or 4 stroke cycle 4 Single or double acting single
Maximum pressure in cylinders Diameter of cylinders 11 Length of stroke 19 1/16 No. of cylinders 6 No. of cranks
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge Is there a bearing between each crank
Revolutions per minute 300 Flywheel dia. Weight Means of ignition Kind of fuel used Heavy oil
Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth Thickness parallel to axis
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted
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 yes
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 yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes

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 lighter oil
If two liners are fitted, is the shaft lapped or protected between the liners no Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft
Propeller, dia. 6'-0" Pitch 3'-5 3/8" No. of blades 4 Material Brass whether Moveable no Total Developed Surface 12.7 sq. feet
Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched
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. 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, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100 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. 2 Diameter 120 Stroke 68 Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line { No. and Size main engine pumps & two independent steam pumps (General Purposes)
How driven Electric Motors

Ballast Pumps, No. and size 2 pumps above Lubricating Oil Pumps, including Spare Pump, No. and size one main engine & one spare & one of same in stern, above one land pump
Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces three 2" & one 2 1/4" in E.P. one 2" in tunnel well
In Holds, &c. three 2" in fore hold & one 2" in after hold Deck pumps with 2" lead pipes to holds & E. Room

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 2 1/4"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions 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 above
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 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 yes
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 upper deck level
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes

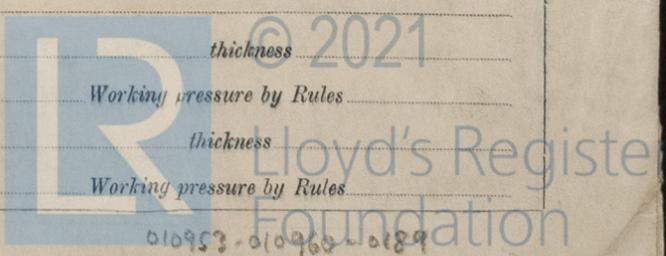
Main Air Compressors, No. 2 No. of stages 2 Diameters 130 150 Stroke 100 Driven by Main engine
Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 130 150 Stroke 100 Driven by Hand engine
Small Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 130 150 Stroke 100 Driven by Hand starting
Savenging Air Pumps, No. 2 Diameter 3 1/2 Stroke 3.66 Driven by Hand starting

Auxiliary Engines crank shafts, diameter as per Rule as fitted Starboard auxiliary engine replaced by a "Yel" Southern Cross engine 3.44

R RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
Are the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces
Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No. 1 Cubic capacity of each Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
Starting Air Receivers, No. three Total cubic capacity Internal diameter thickness
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

SEE DUESSELDORF REPORT No. 46



IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
 PLANS. Are approved plans forwarded herewith for Shafting Plans approved K. H. & Co. Chief London Office. Forging Dept. Receiver Separate Tanks Yes
 Donkey Boilers Yes General Pumping Arrangements Yes Oil Fuel Burning Arrangements Yes

SPARE GEAR To Rule Requirements.
 Also one spare Tail Shaft fitted with continuous lining & staked: **LLOYDS No. 241A. H.K. 9-8-30 G.P.**
 → spare propeller of Cast Iron & same dimensions as working propeller.

The foregoing is a correct description,

R. H. Dyer Manufacturer.
 Chief Manager.

Dates of Survey while building
 During progress of work in shops - ✓
 During erection on board vessel - June 13, 14, 24, 27, August 29, Sept. 11, 16, 22, Oct. 17, 21, 22, 23, 30, 31 - 1930
 Total No. of visits 15

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
 Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts 27/6/30 & 9/8/30 Tube shaft ✓
 Screw shaft 27/6/30 & 9/8/30 Propeller 9/9/30 Stern tube 11/8/30 Engine seatings 11/10/30 Engines holding down bolts 23/10/30
 Completion of fitting sea connections 11/10/30 Completion of pumping arrangements 29/10/30 Engines tried under working conditions 30/10/30
 Crank shaft, Material ✓ Identification Mark ✓ Flywheel shaft, Material ✓ Identification Mark ✓
 Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material O.H. Steel Identification Mark ✓
 Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material O.H. Steel Identification Mark ✓

LLOYDS No. 240 H.K. G.P. 9/8/30

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 No If so, have the requirements of the Rules been complied with ✓
 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.)
 The main & auxiliary engines & air receivers have been identified with Russell of Dept. 46 certificate dated July 1930, and together with the remainder of the installation, have been satisfactorily fitted into the vessel & tried under working conditions.
 The revolutions full ahead were 298; full astern 280; slow ahead & slow astern 90. 18 starts were made from one air receiver (then fitted).
 The work has been carried out in accordance with the Rules Requirements and, in my opinion, the materials & workmanship are sound & good, and the machinery eligible for Classification with the usual of L.M.C., 11, 30. T.S. C.L.

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 ... £ - : : When applied for,
 Installation for ... £ 240.00 8/11/1930
 Donkey Boiler Fee ... £ - : : When received,
 Travelling Expenses (if any) £ 50.00 8.1.1930

J. Siering
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 19 DEC 1930**
 Assigned + L.M.C. 10.30 Oct. 1930



CERTIFICATE WRITTEN

? Confirm work on change in