

## REPORT ON OIL ENGINE MACHINERY.

No. 10675

15 JUL 1927

26 OCT 1927

Received at London Office

Date of writing Report 7th July 1927 When handed in at Local Office

Port of AMSTERDAM

No. in Survey held at AMSTERDAM

Date, First Survey 11th Aug. 1926 Last Survey 20th June 1927.

Reg. Book.

Number of Visits 22

Name of vessel "KATOORA"

Type of Engine KROMHOUT OIL ENGINE NO. 3773, type 4-M-6

Tons { Gross -  
Net -

Built at Greenock

By whom built Messrs G. Brown &amp; Co. Ltd

Yard No. 155 When built 1924

Engines made at Amsterdam

By whom made NV. Kromhout Motoren Fabriek Engine No 3773 When made 1927

Monkey Boilers made at -

By whom made - Boiler No. - When made -

Indicated Horse Power 350

Owners Adelaide Steamship Co.

Port belonging to Melbourne

Nom. Horse Power as per Rule 100

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

Trade for which vessel is intended -

L ENGINES, &amp;c.—Type of Engines Kromhout Oil Engine 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders 12 1/2 lb. per sq. in. Diameter of cylinders 16 1/2 in. Length of stroke 4 1/2 in. No. of cylinders 4 No. of cranks 4

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 500 mm. Is there a bearing between each crank Yes

Revolutions per minute 225 Flywheel dia. 1000 mm Weight 2800 lb Means of ignition Ignition plug Kind of fuel used Crude oil

Crank Shaft, dia. of journals as per Rule approved as fitted 200 mm Crank pin dia. 100 mm Crank Webs Mid. length breadth 2 1/2 in. Thickness parallel to axis 1 1/2 in. Mid. length thickness 1 1/2 in. Thickness around eyehole 1 1/2 in.

Flywheel Shaft, diameter as per Rule approved as fitted 194 mm Intermediate Shafts, diameter as per Rule approved as fitted 116 mm Thrust Shaft, diameter at collars as per Rule approved as fitted 165 mm

Main Shaft, diameter as per Rule approved as fitted 181 mm Is the tube screw shaft fitted with a continuous liner Yes

Cylinder Liners, thickness in way of bushes as per Rule approved as fitted 19 mm Thickness between bushes as per Rule approved as fitted 19 mm Is the after end of the liner made watertight in the

peller 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 or other appliance fitted at the after

end of the tube shaft Yes Length of Bearing in Stern Bush next to and supporting propeller 6 1/2 in.

Propeller, dia. 16 1/2 in. Pitch 4 1/2 in. No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 44.59 sq. feet

Method of reversing Engines Air reverse Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Thickness of cylinder liners 1 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

conducting material No. C. M. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Suction Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. 2 Diameter 4.93 in. Stroke 3.94 in. Can one be overhauled while the other is at work Yes

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

Last Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size 2 (See Friedman)

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

Holds, &amp;c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

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

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

All Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

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

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

Tail pipes pass through the bunkers How are they protected

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

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

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

department to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

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

Air Compressors, No. One No. of stages two Diameters 4 1/2 in. Stroke 4 in. Driven by main engine

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Engining Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted E. R. No. 3775 Diameter 110 mm 2 E. R. II No. 3776 95 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

The internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

Are a drain arrangement fitted at the lowest part of each receiver

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

Seam, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Vacuum Air Receivers, No. Total cubic capacity Internal diameter thickness

Seam, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules



# IS A DONKEY BOILER FITTED?

PLANS. Are approved plans forwarded herewith for Shafting *Reboursal*  
(If not, state date of approval) *18.1.27*

If so, is a report now forwarded? ☒

Receivers *London* Separate Tanks *Office*

Donkey Boilers ☒

General Pumping Arrangements ☒

Oil Fuel Burning Arrangements ☒

SPARE GEAR 3 feeders pins, 4 sets for same; 2 bottom end bolts, nuts; 2 main bearing bolts, nuts; 1 set of coupling bolts, one combustion chamber complete; 1 piston with rings complete; 40 piston rings; 1 set of crank pin bolts; 2 crankshaft bearing covers; 4 steel rollers for crankshaft; 1 fuel pump, pipes and connections of various sizes; 2 sets of valve springs for side and center pumps; 2 sets of valves and springs for compressors; 2 fuel jets; 2 governor springs; 1 cast iron propeller.

The foregoing is a correct description,  
N.V. KROMHOUT MOTOREN FABRIEK

D. GOEDKOOP Jr.

Manufacturer.

Dates of Survey while building  
During progress of work in shops - *11/8 23/8 2/9 14/9 24/9 2/10 5/10 15/10 4/11 7/11 23/11 4/12 21/12 22/12 1926*  
During erection on board vessel - *11/11 11/12 22/12 1/1 5/1 8/1 10/1 20/1 27*  
Total No. of visits *22*

Dates of Examination of principal parts—Cylinders *11/8 5/10* Covers *11/8 5/10* Pistons *11/8 24/12* Rods *11/8 24/12* Connecting rods *11/8 24/12*  
Crank shaft *8/9 23/11* Flywheel shaft *22/12 22/12 27* Thrust shaft *22/12 22/12 27* Intermediate shafts *24/12 11/1* Tube shaft *11/8 24/12*  
Screw shaft *14/1 20/1* Propeller *20/1* Stern tube *20/1* Engine seatings *11/8 24/12* Engines holding down bolts *11/8 24/12*  
Completion of fitting sea connections *11/8 24/12* Completion of pumping arrangements *11/8 24/12* Engines tried under working conditions *8/1 27*  
Crank shaft, Material *Steel* Identification Mark *Lloyd's N. K. 1115* Flywheel shaft, Material *Steel* Identification Mark *Lloyd's 1214*  
Thrust shaft, Material *Steel* Identification Mark *Lloyd's 1174* Intermediate shafts, Material *Steel* Identification Marks *1249, 1115, 1116*  
Tube shaft, Material *Steel* Identification Mark *11/8 24/12* Screw shaft, Material *Steel* Identification Mark *11/8 24/12*

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

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *Belgium No. 5025 Reg. 9/12/24*

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

The machinery has been made in accordance with the approved plan, Secretary's letter and Rules; all material is of the best quality, workmanship good. Machinery tested in full working condition on test bed and good.

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 ... *£ 300.-*  
Special ... *£ :*  
Donkey Boiler Fee ... *£ :*  
Travelling Expenses (if any) *£ 2.-*

When applied for, *19*

When received, *22nd August 1927*

Committee's Minute

GLASGOW 25 OCT 1927

Assigned

See Ex. Rpt. No. 18783

*P. H. Kemmer*  
Engineer Surveyor to Lloyd's Register of Shipping



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