

## REPORT ON OIL ENGINE MACHINERY.

No. 20<sup>6</sup>

MAY 11 1930

Received at London Office

Date of writing Report 9-5-1930 When handed in at Local Office

19 Port of Groningen

No. in Survey held at Groningen

Date, First Survey 21-2-1930 Last Survey 7-5-1930

Reg. Book.

Number of Vents 12

on the <sup>Single</sup>  
<sup>Twin</sup>  
<sup>Triple</sup>  
<sup>Quadruple</sup> Screw vessel

PEGRIX

Tons Gross 296.09  
Net 120.24

Built at Groningen

By whom built Schepwerf "Gideon"

Yard No. 164 When built 1930/5

Engines made at Cologne

By whom made Humboldt, Deutz, &amp; Co. Engine No. 43550/22

When made 1937

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 300 B.H.P. Owners Robert Pex &amp; Sons

Port belonging to Hull

Nom. Horse Power as per Rule 71 N.H.P. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted yes

Trade for which vessel is intended Seagoing Trade

OIL ENGINES, &amp;c.—Type of Engines Heavy oil Engine R.V. 6 1/3 1/2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Mean Indicated Pressure

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

Means of ignition

Kind of fuel used

Crank Shaft, dia. of journals as per Rule as fitted

Crank pin dia.

Crank Webs

Mid. length breadth

Thickens parallel to axis

Mid. length thickness

Thickens around eyehole

Flywheel Shaft, diameter as per Rule as fitted

Intermediate Shafts, diameter as per Rule as fitted 155 mm

Thrust Shaft, diameter at collars as per Rule as fitted 180 mm

Tube Shaft, diameter as per Rule as fitted

Screw Shaft, diameter as per Rule as fitted 150 mm

Is the shaft fitted with a continuous liner { screw } no

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 the tube

shaft If so, state type Length of Bearing in Stern Bush next to and supporting propeller 540 mm

Propeller, dia. 1.73 m Pitch 1.11 m No. of blades 4 Material Bronze whether Moveable Total Developed Surface 1.1747 sq. feet

Method of reversing Engines Directly by Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched yes Means of lubrication

forced Thickness of cylinder liners Are the cylinders fitted with safety valves yes now Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material water cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel

Cooling Water Pumps, No. ONE 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. ONE Diameter 100 mm Stroke 85 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line No. and Size one 2 1/2 " Rotary pump 30 Tons/hour and one of 10 Tons/hour

How driven by belt from 10 B.H.P. auxiliary heavy oil engine and by main engine

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 size one 2 1/2 " Rotary pump 30 Tons/hour Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size two 2 " Polylux/mm

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 2 1/2 " and one 2 1/2 " In Pump Room

In Holds, &amp;c. three 2 " of which one forward and two aft

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one 2 1/2 "

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

d 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 valves &amp; Cocks

Are they sized 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 yes 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

That pipes pass through the bunkers How are they protected

That 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 Is it fitted with a watertight door worked from

In 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. one No. of stages two Diameters 145/60 mm Stroke 85 mm Driven by main engine

Small Auxiliary Air Compressors, No. one No. of stages two Diameters 3 3/4 " 1 1/2 " Stroke 3 3/4 " Driven by 10 B.H.P. Deutz heavy oil engine

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted 70 mm Position in motor space on Port side

See backside of this report. hand started

W112-0017



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

Can the internal surfaces of the receivers be examined and cleaned *yes* Is a drain fitted at the lowest part of each receiver *yes*

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

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

Starting Air Receivers, No. *two* Total cubic capacity *2 x 500 lbs* Internal diameter *4.50* thickness *12 mm*

Seamless, lap welded or riveted longitudinal joint *lap welded* Material *S.H. steel* Range of tensile strength Working pressure by Rules Actual *30 kg/cm<sup>2</sup>*

IS A DONKEY BOILER FITTED? *no* 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 *no 13-3-38* Receivers *S.O. 244 21-7-32* Separate Fuel Tanks *9-4-37* (If not, state date of approval) *see yard N° 154*

Donkey Boilers *✓* General Pumping Arrangements *9-3-37* Pumping Arrangements in Machinery Space *6-4-37*

Oil Fuel Burning Arrangements SPARE GEAR.

Has the spare gear required by the Rules been supplied *yes*

State the principal additional spare gear supplied *✓*

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building { During progress of work in shops - { 21, 22-2-1938; 18, 26-3-1938; 15, 26-4-38; 3, 4, 5, 7-5-38  
During erection on board vessel - -  
Total No. of visits *12*

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

Crank shaft Flywheel shaft Thrust shaft *26-4-38* Intermediate shafts *26-4-38* Tube shaft *✓*

Screw shaft *21-2-38* Propeller *22-2-38* Stern tube *21-2-38* Engine seatings *22-2-38* Engines holding down bolts *26-4-38*

Completion of fitting sea connections *21-2-38* Completion of pumping arrangements *5-5-38* Engines tried under working conditions *7-5-38*

Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark

Thrust shaft, Material *Seim. Martin Steel* Identification Mark *240YD'S N° 338* Intermediate shafts, Material *S.H. steel* Identification Marks *240YD'S N° 338*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S.H. steel* Identification Mark *5.W. 21-2-38*

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 *✓*

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 *yes* If so, state name of vessel *7/4 "ROBRIX"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been fitted*

*in accordance with the approved plans and Secretary's letters*

*In the auxiliary Denny Bramblett heavy oil engine of 10 B.H.P. type 44/4 7.1*

*Eng. N° 460264. the crankshaft, with connecting rod and piston pin have been*

*substituted by same parts but tested by the Society's Surveyors at Dunseldy*

*marks of identification on crankshaft 26764 Lloyd's H.B. 4-10-37, connect*

*rod 140/HB. The cylinder has been tested by hydraulic pressure as per*

*Rule required, examined and found good. A plan of the fitted crank*

*and piston rod have been sent with my report N° 14 B dated 7-4-38.*

*The machinery examined during the trial and found working satisfactory*

*We are of opinion that this vessel is eligible for notation of + I.H.C. 5-30*

*oil engine*

The amount of Entry Fee .. £ : : When applied for,

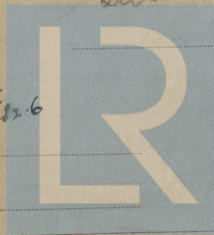
Special *auxiliary* *✓* £ : 25.00 : 19

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ *59.50* 2 6 : 19

Committee's Minute TUE 24 MAY 1938

Assigned *to 5.38*



*W. Williams*  
Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
Foundation