

# REPORT ON OIL ENGINE MACHINERY.

Received at London Office MAY 11 1930

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 2-2-1930 Last Survey 7-5-1930  
Reg. Book. Number of Visits 12

on the Single Screw vessel PEGRIX Tons: Gross 296.09  
Twin Net 120.24  
Triple  
Quadruple

Built at Groningen By whom built Schepswerf "Gideon" Yard No. 164 When built 1930/5

Engines made at Cologne By whom made Humboldt, Deutz, Tolman & Co. Engine No. 43550/22 When made 1930

Donkey Boilers made at By whom made Boiler No. When made

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

**IL ENGINES, &c.**—Type of Engines Heavy oil Engine N.V. 6. 1/3 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 Mid. length thickness Thickness parallel to axis shrunk Thickness 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 120 mm

**Tube Shaft**, diameter as per Rule as fitted **Screw Shaft**, diameter as per Rule as fitted 150 mm Is the ~~tube~~ screw shaft fitted with a continuous liner 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

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

**Propeller**, dia. 1.736 Pitch 1.117. No. of blades 4 Material Bronze whether Moveable Total Developed Surface 1.174<sup>2</sup> 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 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 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" Politec/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 à 2" and one à 2 1/2" In Pump Room

in Holds, &c. three à 2" of which one forward and two aft

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

and 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 & Cocks

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 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

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

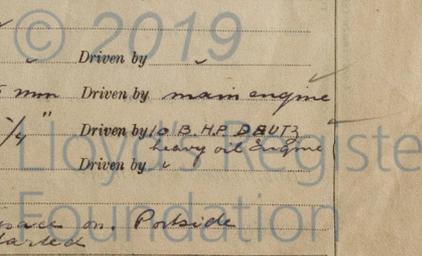
**Main Air Compressors**, No. No. of stages Diameters Stroke Driven by

**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 7/8" Stroke 3 1/4" Driven by 10 B.H.P. DAUTZ heavy oil engine

**Scavenging Air Pumps**, No. Diameter Stroke Driven by

**Auxiliary Engines** crank shafts, diameter as per Rule as fitted 70 mm No. one Position in motor space on starboard hand



**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.M. 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, 26-4-1938; 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 *4-5-38* 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.M. Steel* Identification Marks *26-4-38*

Tube shaft, Material Identification Mark *A.B. 7-3-38* Screw shaft, Material *S.M. Steel* Identification Mark *240YD'S N° 338*

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 *1/4 "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 Humboldt Heavy oil engine of 10 B.H.P. type <sup>HA/H</sup> 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 2676 Lloyd's H.B. 4-10-37, connecting*

*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<sup>B</sup> 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* fee *£ 25.00* 19

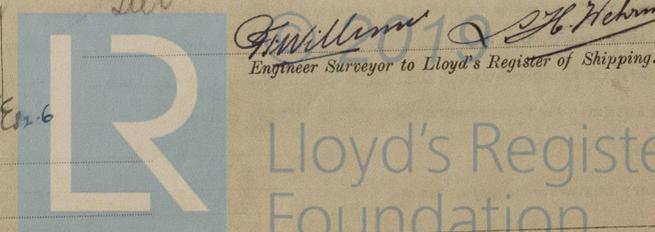
Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ *£ 59.50* 26 19 *38 12.6*

Committee's Minute **TUE 24 MAY 1938**

Assigned *to Amb 5.38*

*oil eng*



Lloyd's Register of Shipping Foundation

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