

REPORT ON OIL ENGINE MACHINERY

No 16

13 OCT 1941

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of **NOTTINGHAM.**

No. in Survey held at **LINCOLN** Date, First Survey **1-5-41** Last Survey **2-10 1941**

Reg. Book. **Single** on the **Triple** Screw vessel **Motor Trawler "Port Jackson"** Tons Gross **11** Net **11**

Built at **LISBON** By whom built **COMPANHIA UNIAO FABRIL** Yard No. **108** When built **1941**

Engines made at **LINCOLN** By whom made **RUSTON & HORNSBY LTD.** Engine No. **206509** When made **1941**

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

Brake Horse Power **560** Owners **LOCH FISHING CO. [DIRECTOR OF NAVY CONTRACTS]** Port belonging to **✓**

Nom. Horse Power as per Rule **107** Is Refrigerating Machinery fitted for cargo purposes **✓** Is Electric Light fitted **YES**

Trade for which vessel is intended **✓**

OIL ENGINES, &c.—Type of Engines **VERTICAL SOLID INJECTION 4VGBM** 2 or 4 stroke cycle **4** Single or double acting **SINGLE**

Maximum pressure in cylinders **675 LB.** Diameter of cylinders **12 1/2"** Length of stroke **15"** No. of cylinders **4** No. of cranks **4**

Mean Indicated Pressure **100.5 LB.** Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **13 13/16"** Is there a bearing between each crank **YES**

Revolutions per minute **430** Flywheel dia. **51"** Weight **37 CWT.** Means of ignition **COMPRESSION** Kind of fuel used **HEAVY OIL.**

Crank Shaft, **Solid forged** dia. of journals **9"** as per Rule **APPD. 4-8-39** Crank pin dia. **7"** Mid. length breadth **12"** Thickness parallel to axis **✓**

Shrink Mid. length thickness **3 1/8"** Thickness around eye hole **✓**

Flywheel Shaft, diameter **as per Rule** Intermediate Shafts, diameter **as per Rule** Thrust Shaft, diameter at collars **as per Rule**

Tube Shaft, diameter **as per Rule** Screw Shaft, diameter **as per Rule** Is the **tube** shaft fitted with a continuous liner **No**

Bronze Liners, thickness in way of bushes **as per Rule** Thickness between bushes **as per Rule** 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 **✓**

Propeller, dia. **8'-3"** Pitch **8'-1"** No. of blades **3** Material **MANG. BRONZE** whether Moveable **No** Total Developed Surface **26** sq. feet

Method of reversing Engines **REVERSE & REDUCTION GEAR** a governor or other arrangement fitted to prevent racing of the engine when declutched **YES** Means of lubrication

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

non-conducting 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 **✓**

Cooling Water Pumps, No. **1 PLUNGER PUMP 4 3/4" x 4 3/4"** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **✓**

Bilge Pumps worked from the Main Engines, No. **1** Diameter **4 3/4"** Stroke **4 3/4"** Can one be overhauled while the other is at work **✓**

Pumps connected to the Main Bilge Line **No. and Size 1 - 2 1/2" No 5. TRUSLOVE "CONQUEST" G.S. & BILGE PUMP - 20 TON/HR.**

How driven **4 VROZ AUXILIARY ENG.**

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 **✓** **FOR ENGINE 1 1/2" RUSTON GEAR PUMP**

FOR GEARS 1 1/2" RUSTON GEAR PUMP

SPARE 2 - 2" HAMWORTHY ROTOFOL PUMPS.

Ballast Pumps, No. and size **✓** Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size **✓**

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 **✓** In Pump Room **✓**

In Holds, &c. **✓** Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **✓**

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **✓** 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 **✓**

Are all Sea Connections fitted direct on the skin of the ship **✓** Are they fitted with Valves or Cocks **✓**

Are 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 **✓**

Are 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 **✓**

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 **✓**

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 **✓** Is the Shaft Tunnel watertight **✓** Is it fitted with a watertight door **✓** worked from **✓**

If 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. **1** No. of stages **1** Diameters **3"** Stroke **3 1/2"** Driven by **BELT FROM MAIN ENG.**

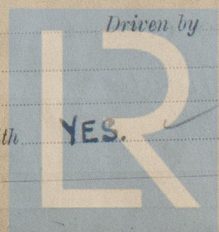
Small Auxiliary Air Compressors, No. **1** No. of stages **2** Diameters **3 3/4, 1 1/8"** Stroke **3 1/4"** Driven by **CLUTCH - 4VROZ ENG.**

What provision is made for first Charging the Air Receivers **4VROZ ENG. IS HAND STARTING.**

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

Auxiliary Engines crank shafts, diameter **as per Rule** APPD. **17.5.40** No. **✓** Position **✓**

Have the Auxiliary Engines been constructed under special survey **YES** Is a report sent herewith **YES.**



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AIR RECEIVERS: - Have they been made under survey **YES** State No. of Report or Certificate **C 493, C 494**
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**
Injection Air Receivers, No. ☒ Cubic capacity of each ☒ Internal diameter ☒ thickness ☒
Seamless, lap welded or riveted longitudinal joint ☒ Material ☒ Range of tensile strength ☒ Working pressure ☒
Starting Air Receivers, No. **2** Total cubic capacity **46.8 CU. FT.** Internal diameter **2'-6"** thickness **3/8"**
Seamless, lap welded or riveted longitudinal joint **SEAMLESS** Material **S.M. STEEL** Range of tensile strength **26-30** Working pressure ☒
by Rules **APPD. 5.5.38**
Actual **300 LB.**

IS A DONKEY BOILER FITTED? ☒ 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 **{4-8-39}** Receivers **5.5.38** Separate Fuel Tanks **{25-2-41}**
(If not, state date of approval) **{7-2-41}**
Donkey Boilers ☒ General Pumping Arrangements ☒ Pumping Arrangements in Machinery Space ☒
Oil Fuel Burning Arrangements ☒
SPARE GEAR.
Has the spare gear required by the Rules been supplied **YES**
State the principal additional spare gear supplied **TO ADMIRALTY REQUIREMENTS.**

The foregoing is a correct description.

HUSTON & HORNSBY LIMITED.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } **1-5-41 To 2-10-41** **11 VISITS**
{ During erection on board vessel - - }
Total No. of visits
Dates of Examination of principal parts - Cylinders **{1-5-41}** Covers **{15-41}** Pistons **21-8-41** Rods ☒ Connecting rods **12-5-41**
Crank shaft **{22-8-41}** Flywheel shaft ☒ Thrust shaft ☒ Intermediate shafts ☒ Tube shaft ☒
Screw shaft ☒ Propeller ☒ Stern tube ☒ Engine seatings ☒ Engines holding down bolts ☒
Completion of fitting sea connections ☒ Completion of pumping arrangements ☒ Engines tried under working conditions ☒
Crank shaft, Material **S.M. STEEL** Identification Mark **176 JB 22/5/41** Flywheel shaft, Material ☒ Identification Mark ☒
Thrust shaft, Material ☒ Identification Mark ☒ Intermediate shafts, Material **S.M. STEEL** Identification Marks **6004. 28/8/41 AS**
Tube shaft, Material ☒ Identification Mark ☒ Screw shaft, Material **S.M. STEEL** Identification Mark **5996. 28/8/41 AS**
Identification Marks on Air Receivers **B 2816 B 2817**
LLOYD'S TEST.
600 LB. / SQ. IN.
W.P. 300 LB. / SQ. IN.
JB. 11-9-41. JB.

Is the flash point of the oil to be used over 150° F. ☒
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ☒
Description of fire extinguishing apparatus fitted ☒
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ☒ 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 **YARD No. 107.**

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

This engine has been built under Special Survey in accordance with the approved plans and the Society's Rules. The materials and workmanship are good. Shop trials carried out at the maker's works were satisfactory. The engine has been despatched to Lisbon for installation in the vessel.

Now charged - £20-0-0 as per letter 12/2/41
2124/T/40/13/48-55

The amount of Entry Fee .. £ : : When applied for,
Special ... £ 20 : 0 : Monthly A/c.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : :
FRI. 10 JUL 1942

Committee's Minute

Assigned

See Lis. GE 3553

J. N. Buchanan
Engineer Surveyor to Lloyd's Register of Shipping.



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