

REPORT ON OIL ENGINE MACHINERY

Received at London Office 9 JUL 1943

Date of writing Report 20th June 43

Port of LISBON

No. in Survey held at ALFEITE

Date, First Survey 2nd February Last Survey 15th June 1943

Reg. Book.

Number of Visits 22

Single
Triple
Quadruple

Screw vessel Motor Trawler

"PORTAFERRY"

Tons Gross 307
Net 128

Built at Alfeite, Lisbon. By whom built Arsenal de Alfeite Yard No. C8 When built 1943.

Engines made at Lincoln By whom made Ruston & Hornsby Ltd. Engine No. 206513 When made 1942

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

Brake Horse Power 560 Owners Loch Fishing Co. of Hull Port belonging to

Nom. Horse Power as per Rule 107 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes.

Trade for which vessel is intended Trawling.

OIL ENGINES, &c.—Type of Engines Vertical Solid Injection 7V68M 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 7 No. of cranks 7

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 ENG. 430 Prop. 170 Flywheel dia. 51" Weight 37 cwt. Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, { Solid forged
dia. of journals as per Rule Appd. 4.8.39 as fitted 9" Crank pin dia. 7" Crank Webs Mid. length breadth 12" Thickness parallel to axis
Mid. length thickness 3 5/16" shrink Thickness around eyehole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule Appd. 7.2.41 fitted 6 1/8" Thrust Shaft, diameter at collars as per Rule as fitted

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule Appd. 7.2.41 as fitted 7 1/8" Is the 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 tube shaft Yes If so, state type Newark Length of Bearing in Stern Bush next to and supporting propeller 2'-6"

Propeller, dia. 8'-3" Pitch 8'-1" No. of blades 14 RS.-2 1/2-1 Material M. Bronze whether Moveable no Total Developed Surface 26 sq. feet

Method of reversing Engines REVERSE & REDUCT. GEAR. Is 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 yes. ALSO G.S. PUMP.

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 1-4 3/4 x 4 3/4 1-2 1/2" TRUSLOVE G.S. & BILGE PUMP - 20 TON/HR. How driven M.E. 4 VROZ aux. 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 ✓ FOR ENGINE 1 1/2" RUSTON GEAR PUMP FOR GEARS 1 1/2" DRYSDALE HORIZONTAL PUMP SPARE - 2 - 2" HAMWORTHY ROTO FOIL PUMPS.

Ballast Pumps, No. and size ✓ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1-2" dia. 1-2 1/2" dia. 1-3" dia. In Pump Room ✓

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: 1-2" Steering gear fat; 1-2" Cofferdam; 1-2" Hold; 1-2" Accom. flat for; 1-2" Chain locker; 1-2" F. Peak.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-3" M.E. pump 1-2 1/2" G.S. pump.

Are all the Bilge Suction pipes in Holds and Trunk 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 Valves.

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. 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 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 ✓

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 M.E.

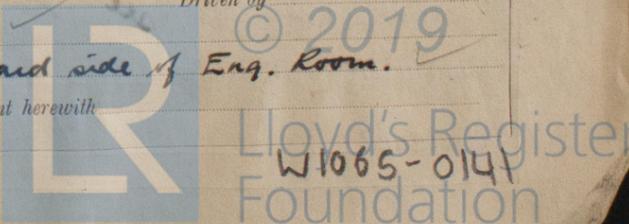
Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 3 3/4" - 1 1/2" Stroke 3 1/2" Driven by Clutch - Aux. Eng.

What provision is made for first Charging the Air Receivers Auxiliary engine is hand starting

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

Auxiliary Engines crank shafts, diameter as per Rule appd. 17.5.40 as fitted P. 3" J. 3" No. 1 Position Starboard side of Eng. Room.

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



AIR RECEIVERS: — Have they been made under survey *yes* State No. of Report or Certificate *C.635, C411.*

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 *✓*
by Rules *✓*
Actual

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 *9.7.41* Pumping Arrangements in Machinery Space *9.7.41*
Oil Fuel Burning Arrangements *✓*

SPARE GEAR.

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

State the principal additional spare gear supplied *To admiralty requirements*

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building
During progress of work in shops - *✓ See Nottingham Rpt. no. 35.*
During erection on board vessel - *2 February 1943 to 15 June 1943*
Total No. of visits *(15 + 22)*

Dates of Examination of principal parts—Cylinders *9.4.43* Covers *9.4.43* Pistons *9.4.43* Rods *9.4.43* Connecting rods *9.4.43*

Crank shaft *9.4.43* Flywheel shaft *-* Thrust shaft *9.4.43* Intermediate shafts *11.5.43* Tube shaft *✓*

Screw shaft *20.4.43* Propeller *20.4.43* Stern tube *20.4.43* Engine seatings *28.4.43* Engines holding down bolts *11-5-43*

Completion of filling sea connections *20.4.43* Completion of pumping arrangements *11-5-43* Engines tried under working conditions *7-6-43*

Crank shaft, Material *S.M. steel* Identification Mark *316. 18.9.41* Flywheel shaft, Material *-* Identification Mark *-*

Thrust shaft, Material *-* Identification Mark *-* Intermediate shafts, Material *S.M. steel* Identification Marks *✓*

Tube shaft, Material *-* Identification Mark *-* Screw shaft, Material *S.M. steel* Identification Mark *-*

Identification Marks on Air Receivers
B.2848 *B2798*
LLOYDS TEST *LLOYDS TEST*
600 lb./sq.in. *600 lb./sq.in.*
W.P. 300 lb./sq.in. *W.P. 300 lb./sq.in.*
T.N.B. 22.1.42 *J.N.B. 17.7.42.*

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*

Description of fire extinguishing apparatus fitted *3 - 2 gallon in E.R.*

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 *no.*

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *ILHA GRACIOSA, ILHA FAIAL, PORT JACKSON, PORTISHAM, ETC.*

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

The above machinery has now been satisfactorily fitted on board this vessel in accordance with the approved plans, the Secretary's letters and the Society's Rules. The materials and workmanship are good. Mooring and sea trials carried out were satisfactory.

The machinery of this vessel is eligible in our opinion to be classed with Record of + LMC *6.43*; TS(OG) and to have the notations "Oil Eng." "Mach. aft." in the Register Book subject to spare valves being supplied.

The amount of Entry Fee .. £
Special ... £
Donkey Boiler Fee *Inclusive Rpt. see Hull Rpt.* £
Travelling Expenses (if any) .. £

G. Nixon, + John G. ...
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned *+ LMC 6.43 09*



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

Rpt. 4b
Date of writ
No. in Reg. Book.
Built at
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Donkey L
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Nom. Ho
Trade for
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