

REPORT ON OIL ENGINE MACHINERY.

No. 44028

21 JUN 1951

Received at London Office

Date of writing Report 19 When handed in at Local Office 18-6-19 Port of GLASGOW

No. in Survey held at RENFREW Date, First Survey 7-8-50 Last Survey 14-5-1951

Reg. Book. on the ~~Triple~~ ^{Single} Screw vessel "RIVER THAMES" Number of Visits 15

Gross 44 Tons Net 18.5

Built at RENFREW By whom built HUGH M^S LEAN & SONS Yard No. 3685 When built 1950

Engines made at ~~Lincoln~~ By whom made RUSTON & HORNSBY Engine No. 296082 When made 1950

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

Brake Horse Power 136 Owners TRINITY HOUSE Pilot Cutter Committee Port belonging to London

M.N. Power as per Rule 28.6 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Trade for which vessel is intended Pilot service

OIL ENGINES, &c. — Type of Engines V.C.M.B. AIRLESS INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 750 lbs Diameter of cylinders 8 Length of stroke 10 3/4 No. of cylinders 4 No. of cranks 4

Mean Indicated Pressure 103 lbs Ahead Firing Order in Cylinders 1, 4, 3, 2 Span of bearings, adjacent to the crank, measured from inner edge to inner edge 9 1/8" Is there a bearing between each crank YES Revolutions per minute 600

Flywheel dia. 2'-10" Weight 17.8 cwt Moment of inertia of flywheel (lbs. in² or Kg. cm²) 4.48 100/31.2 Means of ignition Compression Kind of fuel used

Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis

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/screw) 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 tube shaft YES

Propeller, dia. 4'-9" Pitch 52 No. of blades 3 Material Bronze Whether moveable NO Total developed surface sq. feet

Moment of inertia of propeller (lbs. in² or Kg. cm²) Kind of damper, if fitted

Method of reversing Engines Reverse Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication Pump Thickness of cylinder liners 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 as approved Cooling Water Pumps, No. 6ue 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. 6ue Diameter Stroke 735 gals/hr Can one be overhauled while the other is at work YES

Pumps connected to the Main Bilge Line No. and size 1 Hamworthy rotary No. 83326, 1 Semi-rotary hand type How driven Direct from Diesel Engine (B&P) Hand operated

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 closed circuit F.W. cooling with heat exchanger seawater circulated

Ballast Pumps, No. and size none Power Driven Lubricating Oil Pumps, including spare pump, No. and size none

Are 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 2" dia. 2 off. 1 direct to hand pump pump room

In holds, &c. 6ue 2" in Cove Compartment & 6ue 2" in Off-Compartment

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 6ue direct & 6ue on hull

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES Are the bilge suction 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 Valve 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 YES Are the blow off cocks fitted with a spigot and brass covering plate none

What pipes pass through the bunkers YES How are they protected YES

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

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 NO Is the shaft tunnel watertight YES Is it fitted with a watertight door YES worked from YES

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

Main Air Compressors, No. 1 No. of stages 1 diameters 1 stroke 1 driven by 1

Auxiliary Air Compressors, No. 1 No. of stages 1 diameters 1 stroke 1 driven by 1

Small Auxiliary Air Compressors, No. 6ue 1 No. of stages 2 diameters 1 stroke 1 driven by 1

What provision is made for first charging the air receivers

Scavenging Air Pumps, No. 1 diameter 1 stroke 1 driven by 1

Auxiliary Engines crank shafts, diameter as per Rule No. Position

Have the auxiliary engines been constructed under special survey NO Hamworthy 1 VTH NO 302430 Is a report sent herewith NO

AIR RECEIVERS;—Have they been made under survey... *No* State No. of report or certificate *Ruston & Hornsby No. EW 1232 & EW 510*
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, welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *✓* by Rules *✓*
Starting Air Receivers, No. *Two* Total cubic capacity *22 1/2"* Internal diameter *23 7/8"* thickness *5/16"* Actual *✓*
Seamless, welded or riveted longitudinal joint *Welded* Material *✓* Range of tensile strength *✓* Working pressure *✓* by Rules *✓*
Actual *✓*

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... (If not, state date of approval) Receivers... Separate fuel tanks...
Donkey boilers *✓* General pumping arrangements... Pumping arrangements in machinery space...
Oil fuel burning arrangements *✓*
Have Torsional Vibration characteristics been approved... Date of approval...

SPARE GEAR.

Has the spare gear required by the Rules been supplied... *Yes as required for short voyages*
State the principal additional spare gear supplied...

The foregoing is a correct description,

Manufacturer.

FOR HUGH McLEAN & SONS LIMITED,

Bewley & Co.

Dates of Survey while building
During progress of work in shops - 1950 Aug 7-24 Sep 7-20 Oct 9-23-27 Nov 10 Dec 3-11 1951 Mar 22-29 Apr 2 May 14
During erection on board vessel - - -
Total No. of visits *15*
Dates of examination of principal parts—Cylinders... Covers... Pistons... Rods... Connecting rods...
Crank shaft... Flywheel shaft... Thrust shaft... Intermediate shafts *16/6/50* Tube shaft...
Screw shaft *16/6/50* Propeller... Stern tube *5/12/50* Engine seatings *5/12/50* Engine holding down bolts *18/12/50*
Completion of fitting sea connections *22/3/51* Completion of pumping arrangements *29/3/51* Engines tried under working conditions *29/3/51*
Crank shaft, material... Identification mark *LOYDS 3171 14-3-49* Flywheel shaft, material... Identification mark...
Thrust shaft, material... Identification mark... Intermediate shafts, material *O.H. STEEL* Identification marks *4186, 4187, 4188*
Tube shaft, material *O.H. STEEL* Identification mark... Screw shaft, material *O.H. STEEL* Identification mark *4185*
Identification marks on air receivers *START 5 EW 1232 & EW 510*

Welded receivers, state Makers' Name *Ruston & Hornsby No. EW 1232 & EW 510.*

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 *2 - 2 gallon fluid & 2 - Froth in Engine room*

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 *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel was not built under Special Survey, but was installed under survey & trials witnessed and all was in accordance with the Rule Requirements & the Secretan letters. The materials & workmanship are good so far as seen. In our opinion the machinery of this vessel is eligible for the notation of "Cul Engine - Classification contemplated"*

The amount of Entry Fee ... £ *20 : 0 : 0* ✓

Special ... £ :

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ :

When applied for... 19

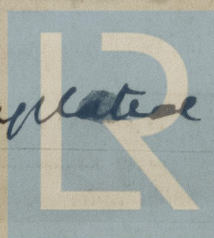
When received... 19

James G. Dunne
R. J. Easthope
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *20 JUN 1951*

Assigned

Oil Engine - Classification contemplated for a period of one year



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