

REPORT ON, OIL ENGINE MACHINERY.

No 14421.
JUN 28 1940

Date of writing Report 19 1940 When handed in at Local Office Dursley Port of Bristol
No. in Survey held at Dursley Date, First Survey 1940 Last Survey 1940
Reg. Book. 11 Number of Visits 11

on the Single Screw vessel Tons ^{Gross} 11 _{Net} 11
Built at Dursley By whom built R.A. Rister Ltd. Yard No. 60/4467 When built 1940
Engines made at Dursley By whom made R.A. Rister Ltd. Engine No. 1940 When made 1940
Donkey Boilers made at Dursley By whom made R.A. Rister Ltd. Boiler No. 1940 When made 1940
Brake Horse Power 40 Owners R.A. Rister Ltd. Port belonging to R.A. Rister Ltd.
Nom. Horse Power as per Rule 40 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No
Trade for which vessel is intended General

OIL ENGINES, &c. Type of Engines 4 J.P. 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 750 lbs. Diameter of cylinders 4 1/2" Length of stroke 5 1/2" No. of cylinders 4 No. of cranks 4
Mean Indicated Pressure 103 lbs.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 14 5/16" Is there a bearing between each crank no.
Revolutions per minute 1200 Flywheel dia 23" x 6" face Weight 415 lbs. Means of ignition Compression Kind of fuel used light distillate oil

Crank Shaft, Solid forged dia. of journals 3" as per Rule 3" as fitted 3" Crank pin dia. 3" Crank Webs Mid. length breadth 4 1/4" Mid. length thickness 1 7/8" Thickness parallel to axis 1 7/8" Thickness around eyehole 1 7/8"

Flywheel Shaft, diameter 3" as per Rule 3" as fitted 3" Intermediate Shafts, diameter 3" as per Rule 3" as fitted 3" Thrust Shaft, diameter at collars 3" as per Rule 3" as fitted 3"

Tube Shaft, diameter 3" as per Rule 3" as fitted 3" Screw Shaft, diameter 3" as per Rule 3" as fitted 3" Is the tube screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes 5/16" as per Rule 5/16" as fitted 5/16" Thickness between bushes 5/16" as per Rule 5/16" as fitted 5/16" Is the after end of the liner made watertight in the propeller boss Yes

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
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 Yes

If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft Yes

Propeller, dia. 36" Pitch 18" No. of blades 3 Material Cast Iron whether Movable Yes Total Developed Surface 100 sq. feet

Method of reversing Engines Forced. Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication oil

Thickness of cylinder liners 5/16" Are the cylinders fitted with safety valves no. 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 Yes

Cooling Water Pumps, No. One plunger type 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. 1 Diameter 3" Stroke 12" Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line { No. and Size 1 How driven Hand

Is the cooling water led to the bilges Yes If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements Yes

Ballast Pumps, No. and size 1 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1

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 1 In Pump Room 1

In Holds, &c. 1 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1

Are all the Bilge Suction pipes in Holds and Tunnel 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 Yes

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

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 Yes

What pipes pass through the bunkers 1 How are they protected Yes

What pipes pass through the deep tanks 1 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 Yes

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 12" Stroke 12" Driven by Hand

Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 12" Stroke 12" Driven by Hand

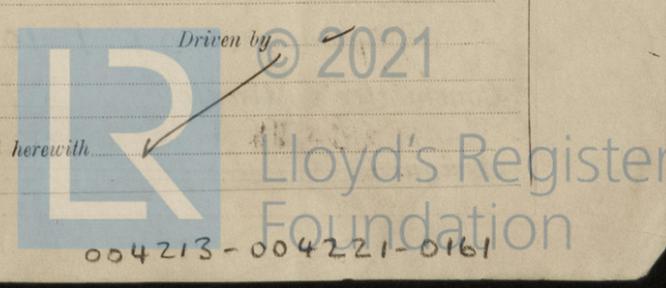
Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 12" Stroke 12" Driven by Hand

Is provision made for first Charging the Air Receivers Yes

Scavenging Air Pumps, No. 1 Diameter 12" Stroke 12" Driven by Hand

Auxiliary Engines crank shafts, diameter 3" as per Rule 3" as fitted 3" No. 1 Position Hand

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



AIR RECEIVERS: - Have they been made under survey State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

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

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. Total cubic capacity Internal diameter thickness

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

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 Receivers Separate Fuel Tanks

(If not, state date of approval) No. 20/5/35.

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

The foregoing is a correct description.

P. P. R. A. LISTON (MARINE SALES) LTD. Manufacturer.

Dates of Survey while building

- During progress of work in shops - - 14-5-40 5-6-40
- During erection on board vessel - -
- Total No. of visits

Dates of Examination of principal parts - Cylinders 14-5-40 Covers Pistons 14-5-40 Rods Connecting rods 14-5-40

Crank shaft 14-5-40 Flywheel shaft 14-5-40 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 Steel Identification Mark Lloyds S 36 Flywheel shaft, Material as crank shaft Identification Mark

Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

Identification Marks on Air Receivers

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

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 If so, state name of vessel

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

This auxiliary oil engine has been built under special survey and in accordance with the approved plan. All parts were examined in a finished machine condition before assembly. Water jacket & cylinder heads tested with hydraulic pressure & proved tight. The materials and workmanship have been found good. After assembly the engine was examined on test bed during an eight hours continuous run under full load conditions, driving a Generator serial No 155945, 220 Volts, 113.5 Amperes & found satisfactory. A governor test was carried out & found steady. For identification purposes the Engine has been stamped with Lloyd's Dist. S 14-5-40.

This Engine has been built to the order of The Gool Shipbuilding Co.

The amount of Entry Fee .. £ 3 : 3 : When applied for, 21-6-1940

Special £ : : When received, 7-8-1940

Donkey Boiler Fee £ : :

Travelling Expenses (if any) £ 1 : 10 :

Committee's Minute

Assigned

J. Brooke Smith
Engineer Surveyor to Lloyd's Register of Shipping.

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