

REPORT ON OIL ENGINE MACHINERY.

No. 8632

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Date of writing Report 25-5-36 When handed in at Local Office 29-5-36 Port of MANCHESTER
 No. in Survey held at STOCKPORT Date, First Survey JAN. 27th 1936 Last Survey MAY 22nd 1936
 Reg. Book. Number of Visits 4

on the Single Screw vessel Tons ^{Gross} _{Net}
 Built at GOOLE By whom built GOOLE S.B. & R. CO. Yard No. 3/4 When built 1936
 Engines made at STOCKPORT By whom made MIRRELES, BICKERTON & DAY, LTD. Engine No. 70389 When made 1936
 Donkey Boilers made at - By whom made - Boiler No. - When made -
 Brake Horse Power 450 Owners Port belonging to
 Nom. Horse Power as per Rule 91 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted
 Trade for which vessel is intended

IL ENGINES, &c. Type of Engines VERTICAL SOLID INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE
 Maximum pressure in cylinders 100 LBS/SQ. IN. Diameter of cylinders 12 1/2" Length of stroke 19" No. of cylinders 6 No. of cranks 6
 Mean Indicated Pressure 88 LBS/SQ. IN. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 17 3/8" Is there a bearing between each crank YES
 Revolutions per minute 375 Flywheel dia. 4'-1" Weight 1.7 TON Means of ignition COMPRESSION Kind of fuel used HEAVY OIL
 Crank Shaft, dia. of journals as per Rule APPROVED Crank pin dia. 7 1/2" Crank Webs Mid. length breadth 10 1/4" Thickness parallel to axis SOLID
 as fitted 7 1/2" Mid. length thickness 5 3/4" Thickness around eyehole
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule APPROVED
 as fitted as fitted as fitted 5 1/2"
 Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the { tube } shaft fitted with a continuous liner {
 as fitted as fitted as fitted

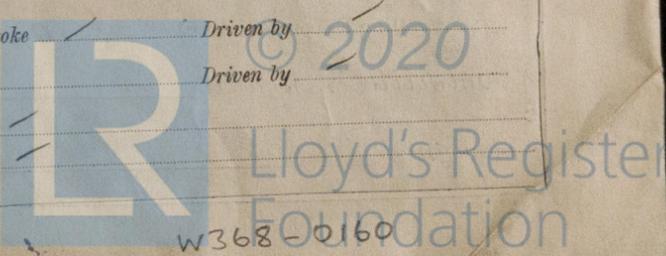
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the
 as fitted as fitted as fitted
 Propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 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. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
 Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when detached YES Means of lubrication
 Thickness of cylinder liners 13/16" Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with
 non-conducting material 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. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Bilge Pumps worked from the Main Engines, No. ONE Diameter 3 1/2" Stroke 4" Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size
 How driven
 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 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2. 900 GALLS. EACH/HR.
 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 In Pump Room
 In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Are the Bilge Suctions in the Machinery Spaces
 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. ONE No. of stages 2 Diameters 2 3/8" x 7" Stroke 8 1/2" Driven by MAIN ENGINE
 Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
 Scavenging Air Pumps, No. Diameter Stroke Driven by
 Auxiliary Engines crank shafts, diameter as per Rule No. Position
 as fitted



AIR RECEIVERS:—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 **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 110 COB FT. Internal diameter 2'-6" thickness 1/32"
 Seamless, lap welded or riveted longitudinal joint RIVETED Material STEEL Range of tensile strength 30.1/31.3 Working pressure by Rules APPROVE Actual 350 LBS

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 11 Nov. 1935 Receivers — Separate Fuel Tanks —
(If not, state date of approval)

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,
MIRRELES, BICKERTON & DAY, LIMITED

G. V. Beattie

Manufacturer.

Dates of Survey while building (During progress of work in shops --) 1936 JAN. 27. FEB 11, 17. MAR 28. APRIL 1, 15, 16, 24, 25, 30, MAY 2, 13, 20, 22
(During erection on board vessel --)
 Total No. of visits 14

Dates of Examination of principal parts—Cylinders 15-4-36 Covers 15-4-36 Pistons 16-4-36 Rods — Connecting rods 13-5-
 Crank shaft 27.1.36 Flywheel shaft — Thrust shaft 15-4-36 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 1017 GTC 9-1-36 Flywheel shaft, Material — Identification Mark —
 Thrust shaft, Material STEEL Identification Mark 22/6 C4LP 5-12-35 Intermediate shafts, Material — Identification Marks —
 Tube shaft, Material — Identification Mark — Screw shaft, Material — Identification Mark —

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
 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, &c.)
THIS MACHINERY HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE SET WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHOWN SATISFACTORY RESULTS.

IN MY OPINION, THIS MACHINERY IS ELIGIBLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY AND TO HAVE THE NOTATION OF + LLOYDS L.M. WITH DATE WHEN SATISFACTORILY INSTALLED.

The amount of Entry Fee .. £ 2 : 0 : 0 When applied for, 29.5.36
 Special £ 18 : 4 : 0
 Donkey Boiler Fee £ — : — : —
 Travelling Expenses (if any) £ 1 : 0 : 0 When received, 9.7.36

W. Leicester
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned
 TUE. 11 AUG 1936
 See Incl 7E 47025



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