

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 8632.

Received at London Office -2 JUN 1936

36
Date of writing Report 25-5-36 When handed in at Local Office 29-5-36 Port of MANCHESTER
5 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 Triple Quadruple Screw vessel
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 MARRLEES, 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 700 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. Is there a bearing between each crank YES
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 17 3/8"
Revolutions per minute 375 Flywheel dia. 4'-1" Weight 1. TON Means of ignition COMPRESSION Kind of fuel used HEAVY OIL
Crank Shaft, dia. of journals as per Rule APPROVED as fitted 7 1/2" Crank pin dia. 7 1/2" Crank Webs Mid. length breadth 10 1/4" Mid. length thickness 5 3/4" Thickness parallel to axis SOLID. Thickness around eyehole
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 4.7" Thrust Shaft, diameter at collars as per Rule APPROVED as fitted 5 1/2"
Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner -
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 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 FORCED. 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 -

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 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 as fitted Position

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 Cu. Ft.** Internal diameter **2'-6"** thickness **7/32"**

Seamless, lap welded or riveted longitudinal joint **RIVETED** Material **STEEL** Range of tensile strength **30.1/31.3** Working pressure ^{by Rules} **APPROVED** ^{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 —

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

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** When received, **36**

Donkey Boiler Fee ... £ —

Travelling Expenses (if any) £ **1 : 0 : 0** **9.7.36**

Committee's Minute

Assigned

Engineer Surveyor to Lloyd's Register of Shipping.



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