

REPORT ON OIL ENGINE MACHINERY.

No. 103790

Received at London Office

DEC 1836

19 DEC 1836

Date of writing Report 30 November 1936 When handed in at Local Office

Port of London

in Survey held at Newbury

Date, First Survey 23 October

Last Survey 11 November 1936

Number of Visits Two

on the Single Twin Triple Quadruple Screw vessel

Tons ^{Gross} _{Net}

built at Barrow

By whom built Vickers Armstrong Ltd.

Yard No. 726 When built

engines made at Glasgow

By whom made Atlas Diesel Co. Ltd.

Engine No. When made

Boilers made at Newbury

By whom made Plenty & Son Ltd.

CONTRACT No. R8972 When made 1936

Horse Power 500

Owners

Port belonging to

Horse Power as per Rule 125

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Use for which vessel is intended

ENGINES, &c.—Type of Engines Heavy oil 2 or 4 stroke cycle 2 Single or double acting Single

Working pressure in cylinders — Diameter of cylinders 340 mm Length of stroke 570 mm No. of cylinders 4 No. of cranks

Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge — Is there a bearing between each crank

Revolutions per minute 220 Flywheel dia. 1550 mm Weight 2030 Kg. Means of ignition — Kind of fuel used —

Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth shrunk Thickness parallel to axis

Intermediate Shafts, diameter as per Rule 5.43" as fitted 5 13/16" Thrust Shaft, diameter at collars as per Rule

Screw Shaft, diameter as per Rule 6.32" as fitted 6 1/2" Is the tube screw shaft fitted with a continuous liner

Cylinder Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per rule 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

When 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

When 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

Propeller, dia. 7.5" Pitch 5.3" No. of blades 3 Material Bronze whether Moveable Solid Total Developed Surface 18.0 sq. feet

Method of reversing Engines — Is a governor or other arrangement fitted to prevent racing of the engine when disengaged — Means of lubrication

Thickness of cylinder liners — Are the cylinders fitted with safety valves — Are the exhaust pipes and silencers water cooled or lagged with

Insulating material — If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Number of Water Pumps, No. — Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Number of Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

Number of Pumps connected to the Main Bilge Line { No. and Size How driven Lubricating Oil Pumps, including Spare Pump, No. and size

Number of Pumps, No. and size — Two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Number of Pumps, No. and size:—In Machinery Spaces — In Pump Room

Number of Pumps, No. and size:—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

Are they 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

Do the pipes pass through the bunks — How are they protected

Do the 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

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

Number of Main Air Compressors, No. No. of stages Diameters Stroke Driven by

Number of Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Number of Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Number of scavenging Air Pumps, No. Diameter Stroke Driven by

Number of Auxiliary Engines crank shafts, diameter as per Rule as fitted

Number of AIR RECEIVERS — Is each receiver, which can be isolated, fitted with a safety valve as per Rule

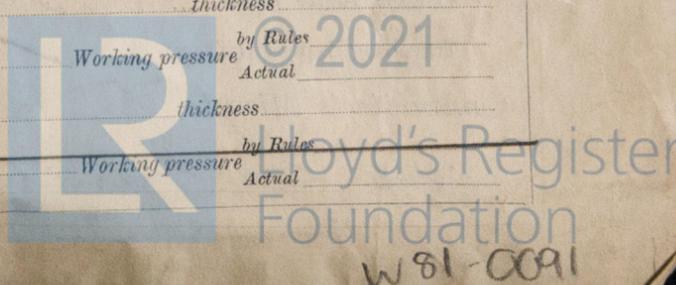
Are the internal surfaces of the receivers be examined and cleaned — Is a drain fitted at the lowest part of each receiver

Number of High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Are they seamless, lap welded or riveted longitudinal joint — Material Range of tensile strength Working pressure by Rules Actual

Number of Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Are they seamless, lap welded or riveted longitudinal joint — Material Range of tensile strength Working pressure by Rules Actual



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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 30.7.36
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied?

State the principal additional spare gear supplied 1 Cast Iron Propeller

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building
 During progress of work in shops - 1936. Oct 23 Nov 11
 During erection on board vessel -
 Total No. of visits 2

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

Crank shaft Flywheel shaft Thrust shaft Intermediate shafts 11.11.36 Tube shaft

Screw shaft 11.11.36 Propellers 11.11.36 Stern tube 23.10.36 Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark

Thrust shaft, Material Identification Mark Intermediate shafts, Material 4.2 Steel Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material 4.2 Steel Identification Mark

Is the flash point of the oil to be used over 150° F.

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 No

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

This stern gear has been examined during machining and when finished. The materials used have been made at Works approved by the Committee and tested by the Surveyors to this Society. It has now been dispatched to Banow for fitting onboard.

Attached hereto. Longing Certificate on p. 11.

The amount of Entry Fee .. £ : When applied for, £ 6-6-0
 Special Mel. fee .. £ : £ 6-6-0
 Donkey Boiler Fee ... £ : When received, 27/2/37
 Travelling Expenses (if any) £ : £ 0-0-0

Committee's Minute

Assigned See minute on Bm 2645

Geo. A. Paing
 Engineer Surveyor to Lloyd's Register of Shipping.



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 Foundation

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