

REPORT ON OIL ENGINE MACHINERY.

No. 101170

Received at London Office 4 MAR 1935

Date of writing Report 28 Feb 1935 When handed in at Local Office - 4 MAR 1935 Port of London  
No. in Survey held at Newbury Date, First Survey 15 Feb 1935 Last Survey 27 February 1935  
Reg. Book. Number of Visits 2  
on the <sup>Single</sup> ~~Double~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel Tons <sup>Gross</sup> <sub>Net</sub>  
Built at Aberdeen By whom built J. Lewis & Co. Ltd. Yard No. 132 When built  
Engines made at By whom made Engine No. When made  
SHAFTING ~~Boiler~~ made at Newbury By whom made Plenty & Son Ltd. ORDER No. R/8236 When made 1935  
Brake Horse Power 300 Owners. Port belonging to  
Nom. Horse Power as per Rule 109. Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
Trade for which vessel is intended

L ENGINES, &c.—Type of Engines Heavy oil (Petrol) 2 or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders 700 lb/sq. in. Diameter of cylinders 12 1/2" Length of stroke 18 1/4" No. of cylinders 4 No. of cranks 4  
Mean Indicated Pressure  
Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge Is there a bearing between each crank  
Revolutions per minute 300 Flywheel dia. 3'-11" Weight 3870 lb Means of ignition Compression Kind of fuel used  
Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth Mid. length thickness Thickness parallel to axis shrunk Thickness around eyehole  
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule 4-12" as fitted 4 1/4" Thrust Shaft, diameter at collars as per Rule as fitted  
Propeller Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 4 1/4" as fitted 4 3/4" Is the tube screw shaft fitted with a continuous liner Not fitted  
Cylinder 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  
If so, state type Length of Bearing in Stern Bush next to and supporting propeller 21"  
Propeller, dia. 5'-4 1/2" Pitch 4'-0" No. of blades 3 Material Cast Iron whether Moveable Solid Total Developed Surface 12 sq. feet  
Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched 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  
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. Is the sea suction provided with an efficient strainer which can be cleared within the vessel  
Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work  
Pumps connected to the Main Bilge Line No. and Size How driven  
Is 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  
Fast Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size  
Are 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  
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  
from easily accessible mud-boxes, placed above the level of the working floor, with straight 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 pipes pass through the bunkers How are they protected  
Do pipes pass through the deep tanks Have they been tested as per Rule  
Are 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 good vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork  
Air Compressors, No. No. of stages Diameters Stroke Driven by  
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
Suctioning Air Pumps, No. Diameter Stroke Driven by  
Main Engines crank shafts, diameter as per Rule as fitted

THIS REPORT CONCERNS LINE SHAFTING, AFT. OF THRUST SHAFT ONLY.



**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.

Is a drain fitted at the lowest part of each receiver

**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.**

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 *fine shafting 1/2 25/32* 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 ☒

The foregoing is a correct description.

**PLENTY & SON, LIMITED.**

Manufacturer.

Dates of Survey while building  
During progress of work in shops - 1935. 26.15.27 = 2 visits  
During erection on board vessel -  
Total No. of visits

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

Crank shaft ☒ Flywheel shaft ☒ Thrust shaft ☒ Intermediate shafts 27.2.33 Tube shaft ☒

Screw shaft 27.2.35 Propeller 27.2.35 Stern tube 27.2.35 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 27.2.33 Identification Marks ☒

Tube shaft, Material ☒ Identification Mark ☒ Screw shaft, Material 27.2.35 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 ☒

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

*This Stern gear consisting of propeller, Stern tube, propeller shaft and intermediate shaft have been specially examined during machining and when finished and so far as can be seen are sound and free from defects. They are now being dispatched to Aberdeen for fitting onboard. Material used have been made at works approved by the Committee and tested by the Surveyor to this Society*

*Attached hereto. one fitting certificate*

*approved plan of Stern gear dated 28/1/35.*

100 c 5/- = £27.5.0  
100 c 5/- = £30.0.0  
100 c 5/- = £30.5.0

The amount of Entry Fee .. £

Special 1/5 = £27.5.0

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

- 4 MAR 1935

When received,

Per Secy. letter. C. 4. 12-4-35.

Committee's Minute

Assigned

*See Abn J.E. 18037*

*Crossland*  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation