

24 OCT 1936

Rpt. 4b.

# REPORT ON <sup>Aux</sup> OIL ENGINE MACHINERY.

No. 13523

Received at London Office 22 SEP 1936

Date of writing Report 19 When handed in at Local Office 19 Port of BRISTOL  
No. in Survey held at DURSLEY Date, First Survey 20<sup>th</sup> July Last Survey 14 Sept 1936  
Reg. Book. Number of Visits 3

Single }  
on the Twin } Screw vessel  
Triple }  
Quadruple }

Built at By whom built Yard No. When built  
Engines made at Dursley By whom made R.A. Lister & Co. Engine No. 20960 When made 1936  
Donkey Boilers made at By whom made Boiler No. When made  
Brake Horse Power 3.5 Owners Port belonging to  
Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
Trade for which vessel is intended

IL ENGINES, &c.—Type of Engines Compression Ignition (3-1) 2 or 4 stroke cycle 4 Single or double acting Single  
Maximum pressure in cylinders 700 lbs. Diameter of cylinders 3.75 Length of stroke 5 1/2 No. of cylinders one No. of cranks one  
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 7 1/2 Is there a bearing between each crank  
Revolutions per minute 600 Flywheel dia. 24 Weight 21 lbs. Means of ignition Compression Kind of fuel used Diesel oil  
Crank Shaft, dia. of journals as per Rule 2- as fitted Crank pin dia. 2 1/2 Crank Webs Mid. length breadth 3- Thickness parallel to axis  
Flywheel Shaft, diameter as per Rule 2- as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted  
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 Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication  
Splash Thickness of cylinder liners .5 Are the cylinders fitted with safety valve Yes Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting material No 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  
Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

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 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  
ed 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.	No. of stages	Diameters	Stroke	Driven by
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

RE 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 What means are provided for cleaning their inner surfaces  
Is there a drain arrangement 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
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



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting 25/10/34  
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

The foregoing is a correct description,

Per. A.A. Lister & Co. (Maine Sales Dept.)

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 20<sup>th</sup> July. 20<sup>th</sup> Aug. 1<sup>st</sup> Sept.  
During erection on board vessel - - -  
Total No. of visits 3.

Dates of Examination of principal parts—Cylinders 20-8-36 Covers 20-8-36 Pistons 20-8-36 Rods ✓ Connecting rods 20-8-36

Crank shaft 20-8-36 Flywheel shaft 20-8-36 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 1-9-36

Crank shaft, Material Steel Identification Mark M468 Flywheel shaft, Material Steel Identification Mark M468 1-9-36 20-8

Thrust shaft, Material Identification Mark 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.

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

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.

All parts of this engine have been exam'd before being assembled, found satisfactory & afterwards tested on the test bed

It has been sent to the Hamworthy Engineering Co., then run N° 57695 (Listed run N° M639) & taken to be for Messrs. Keekers Armstrong Yarn N° 72.

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

The amount of Entry Fee ... £ : : When applied for,  
Special ... £ 3 : 3 : 21<sup>st</sup> Sept. 1936  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : 3 : 27.8 36<sup>th</sup> 28/10

Committee's Minute FRI 18 MAR 1936

Assigned See Run 2687

John L. Gwynne & for S. Macfarlane  
Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation