

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 4 4544.
22 JAN 1937

Date of writing Report 16-1-1937 When handed in at Local Office

21 JAN 1937

Port of

Received at London Office

No. in Survey held at
Reg. Book.

Date, First Survey 23rd Nov. 1936 Last Survey 12th Jan. 1937

on the ^{Single} ~~Triple~~ Screw vessel

"CHAGFORD"

Number of Visits 8.

Tons Gross 311
Net 164

Built at Goole By whom built Goole & B. & Pegg Co. Ltd. Yard No. 323 When built 1-37.
Engines made at Cologne By whom made Humboldt, Deutz & Co. A.G. Engine No. 39742 When made 1937
Donkey Boilers made at Cyone By whom made Boiler No. When made
Brake Horse Power 350 Owners H. Harrison (Shipping) Ltd. Port belonging to London.
Nom. Horse Power as per Rule 70 Is Refrigerating Machinery fitted for cargo purposes Cyone Is Electric Light fitted Cyone
Trade for which vessel is intended Coasting.

OIL ENGINES, &c. Type of Engines Heavy Oil (R.V. 6. M. 343) 2 or 4 stroke cycle 4 Single or double acting S.A.
Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 6 No. of cranks 6
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 307.5 mm Is there a bearing between each crank Yes.
Revolutions per minute 350 Flywheel dia. 1250 mm Weight 2600 kg Means of ignition Comp. Kind of fuel used Heavy oil.
Crank Shaft, dia. of journals as per Rule as fitted 190 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 325 mm Thickness parallel to axis shrunk
Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted 140 mm
Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 5 1/8 Is the tube screw shaft fitted with a continuous liner No 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 Yes If so, state type Cynewark.

Propeller, dia. 64 Pitch 34 1/2 x 50 No. of blades 4 Material C.I. whether Moveable Solid Total Developed Surface 9.5 sq. feet
Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced.
Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Up funnel.

Cooling Water Pumps, No. One & connected to Bilge pumps the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.
What special arrangements are made for dealing with cooling water if discharged into bilges All overboard

Bilge Pumps worked from the Main Engines, No. One Diameter 100 mm Stroke 85 mm Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and Size One 100 x 85 mm How driven Main Engine 2 Pumps 60 x 25 mm / h² respectively Aux. Engine.

Ballast Pumps, No. and size All the above. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One & One spare seas type
Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 2 2 1/2" x 2 2 1/2" dia. In Pump Room
In Holds, &c. Hold 2 2 1/2" dia. Fore peak. One 2 3" dia. Cyone DBT. 3 2 3" dia. No 2 DBT. 3 2 3" dia. Aft. Peak 1 2 3" dia.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 2 1/2" dia. (included above).
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes 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 Strum boxes at. Yes.

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Yes.
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Above.
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Cyone.

What pipes pass through the bunkers Cyone How are they protected
What pipes pass through the deep tanks Cyone 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 Yes.

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 Yes Is the Shaft Tunnel watertight Cyone 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 two Diameters 145 x 60 mm Stroke 85 mm Driven by Main Engine
Auxiliary Air Compressors, No. One No. of stages One Diameters 3 1/4 Stroke 3 1/4 Driven by Aux. Engine
(15 cu ft.) Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by (Hand starting.)
Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted See Annot. Rpt No 13525. No. One Position No side of Engine Room.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.
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. Cyone 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. 2 Total cubic capacity 1000 litres Internal diameter 4 60 mm thickness 12 mm.
Seamless, lap welded or riveted longitudinal joint lap welded Material Steel Range of tensile strength 39.1 kg/mm² Working pressure by Rules Actual 30 kg/cm²

IS A DONKEY BOILER FITTED?

C16.

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 13-2-35-49-3-36 Receivers 21-7-32 Separate Tanks 23-3-36
Donkey Boilers C16 General Pumping Arrangements 16-3-36 Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied?

State the principal additional spare gear supplied

As per Danielson Report.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - } 1936. Nov. 23. 28. Dec. 21. 30. 1937. Jan. 6. 8. 11. 12.
Total No. of visits 8.

Dates of Examination of principal parts—Cylinders Due. Rpt. Covers Due. Pistons Due. Rods Connecting rods Due.
Crank shaft Due. Flywheel shaft ✓ Thrust shaft Due. Intermediate shafts 6.1.37 Tube shaft ✓
Screw shaft 23-11-36 Propeller 28-11-36 Stern tube 23-11-36 Engine seatings 28-11-36 Engines holding down bolts 8-1-37
Completion of fitting sea connections 28-11-36 Completion of pumping arrangements 11-1-37 Engines tried under working conditions 12-1-37
Crank shaft, Material Steel Identification Mark 11299 V.L. Flywheel shaft, Material Identification Mark ✓
Thrust shaft, Material Steel Identification Mark 548 HB Intermediate shafts, Material Steel Identification Marks K.H. C.S.P.
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material Steel Identification Mark 1099 C.S.P.

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 Yes.
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo C16 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 C16
Is this machinery duplicate of a previous case Yes If so, state name of vessel KESTOR. Hul Rpt No 47223.

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

The Machinery of this Vessel has been satisfactorily fitted on board under Special Survey & in accordance with the Rules & the approved plans and when tried under working conditions was found satisfactory in every respect. and is eligible, in my opinion, to be classed with the record of S.A.L.M.C. 1.37. O.G. and to have the notations of "Oil Engine, 4 S.C. 3A. 11" x 17 1/2" 6 Cy 70 NHP.

The amount of Entry Fee £ : : When applied for,
Special ... See Def. Rpt. 19
Donkey Boiler Fee £ : : When received,
Travelling Expenses (if any) £ : : 19.

Committee's Minute

TUE 26 JAN 1937

Assigned

+ L.M.C. 1.37
Oil Eng. O.G.

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping.



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