

REPORT ON OIL ENGINE MACHINERY.

No. 94702

17 FEB 1937

Date of writing Report

When handed in at Local Office

15/2/37 Port of

Received at London Office

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book. (SURV)

NEWCASTLE - ON - TYNE

Date, First Survey 28th Oct. 36 Last Survey 9th FEB. 1937

Number of Visits 20

88580 on the Single
Triple
Quadruple Screw vesselHULLGATETons Gross 409
Net 219

Built at NEWCASTLE

By whom built CLELAND'S (SUCCESSORS) LTD. Yard No. 35 When built 1937.

Engines made at COLOGNE

By whom made HUMBOLDT DEUTZ MOTOREN A.G. Engine No. 382105/110 When made 1936

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 350

Owners HULL GATES SHIPPING CO.

Port belonging to HULL.

Nom. Horse Power as per Rule 70

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted YES.

Trade for which vessel is intended

COASTING.

OIL ENGINES, &c.—Type of Engines HEAVY OIL ENGINE 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 50 kg/cm² Diameter of cylinders 280 mm Length of stroke 450 mm 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 SOLID INJ. Kind of fuel used DIESEL OIL

Crank Shaft, dia. of journals as per Rule 190 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 325 mm Thickness parallel to axis 70 mm Thickness around eye-hole

Flywheel Shaft, diameter as per Rule 190 mm Intermediate Shafts, diameter as per Rule 4 3/8" Thrust Shaft, diameter at collars as per Rule 140 mm.

Tube Shaft, diameter as per Rule 5 3/8" Is the tube shaft fitted with a continuous liner No.

Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule 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 AS PER APPROVED PLAN. Length of Bearing in Stern Bush next to and supporting propeller 21.5"

Propeller, dia. 5' 9 3/4" Pitch 3' 6 3/4" No. of blades 4 Material BRONZE whether Moveable FIXED Total Developed Surface 11.85 sq. feet

Method of reversing Engines DIRECT Is a governor or other arrangement fitted to prevent racing of the engine when decelerated 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 LAGGED. 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 YES

What special arrangements are made for dealing with cooling water if discharged into bilges ALL COOLING WATER DISCHARGED OVERBOARD.

Bilge Pumps worked from the Main Engines, No. 1 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 x 100 x 85 mm ONE 2 1/2" ROTARY BILGE PUMP ONE 3" ROTARY BALL

Ballast Pumps, No. and size ONE 3" ROTARY Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 GEAR PUMP. 1 SPARE.

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 x 2" DIA. 2 x 2 1/2" DIA. (DIRECT) In Pump Room

In Holds, &c. 2 x 2 1/2" DIA. Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 x 2 1/2" DIA. AFT. 1 x 2 1/2" DIA. FORW.

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 YES

Are all Sea Connections fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks BOTH

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 BOTH.

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

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 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 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 & 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 STAR² AUX. ENG.

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 3 CYL. 2 3/8" DIA. 1 CYL. 2 3/8" DIA Position 3 CYL.: PORT. 1 CYL.: STARBOARD.

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. Two Total cubic capacity 1000 LITRES Internal diameter 450 mm thickness 12 mm

Seamless, lap welded or riveted longitudinal joint LAPWELDED Material S.M. ST. Range of tensile strength 38.4 kg/mm² Working pressure by Rules Actual30 kg/cm²

IS A DONKEY BOILER FITTED?

No.

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 7-9-36

Receivers DÜSSELDORF CERT. Separate Tanks 9-12-36.

Donkey Boilers

General Pumping Arrangements 2-9-36

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.

FOR AND ON BEHALF OF
CLELANDS (SUCCESSORS) LIMITED

Manufacturer.

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

✓ 1936. Oct. 28, 29. Nov. 12, 16, 18, 19, 23, 28. Dec. 1, 2, 4, 11, 18. 1937 Jan. 8, 20, 25, 27, 29, Feb. 9.
20.

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

Crank shaft ✓ Flywheel shaft 4-12-36 Thrust shaft 4-12-36 Intermediate shafts 4-12-36 Tube shaft ✓

Screw shaft 29-10-36 Propeller 2-12-36 Stern tube 19-11-36 Engine seatings 4-12-36 Engines holding down bolts 26-1-37

Completion of fitting sea connections 4-12-36 Completion of pumping arrangements 27-1-37 Engines tried under working conditions 31-1-37

Crank shaft, Material S.M. ST. Identification Mark K.H. 14-5-36 Flywheel shaft, Material S.M. ST. Identification Mark K.H. 16-4-36

Thrust shaft, Material S.M. ST. Identification Mark H.R. 15-5-36 Intermediate shafts, Material S.M. ST. Identification Marks G.D. 4-12-3

Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material S.M. ST. Identification Mark L.P. 29-10-3

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 No.

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 No.

Is this machinery duplicate of a previous case YES If so, state name of vessel MY "CONIDA" (GOOLE YARD No 311)

General Remarks (State quality of workmanship, opinions as to class, &c. THE MACHINERY OF THIS VESSEL HAS BEEN

BUILT UNDER SPECIAL SURVEY - SEE DÜSSELDORF REPORT No 136 RETURNED HEREWITH. - AND HAS NOW BEEN INSTALLED ON BOARD IN ACCORDANCE WITH THE SOCIETY'S RULES AND THE APPROVED PLANS. THE WORKMANSHIP AND MATERIALS ARE GOOD. THE MACHINERY HAS BEEN SATISFACTORILY TESTED UNDER WORKING CONDITIONS.

THE MACHINERY OF THIS VESSEL IS ELIGIBLE IN OUR OPINION TO BE CLASSED AND TO HAVE THE RECORD LMC 2.37 AND TS. [OG.] 2.37 IN THE REGISTER BOOK.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for

When received

Committee's Minute

Assigned

G. Dixon.

FOR H.R. RIDDELL, L. PEXKETT & SELF.
Engineer Surveyor to Lloyd's Register of Shipping.



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