

REPORT ON OIL ENGINE MACHINERY

No. 10.923

29 AUG 1932

Received at London Office

Date of writing Report

19

When handed in at Local Office

26th Aug 1932 Port of

Belfast

No. in Survey held at
Reg. Book.

Belfast

Date, First Survey 30th April 1930 Last Survey 24th Aug 1932

Number of Visits

96

60439 on the ^{Single}
^{Twin}
^{Triple}
^{Quadruple} Screw vessel

"CORABANK"

Tons { Gross 9000.
Net

Built at Belfast

By whom built Workman, Clark (1928) Ltd. Yard No. 516 When built 1932

Engines made at Belfast

By whom made Workman, Clark (1928) Ltd. Engine No. 516 When made 1932

Donkey Boilers made at Belfast

By whom made Workman, Clark (1928) Ltd. Boiler No. 516 When made 1932

Brake Horse Power 3000

Owners Bank Line Ltd. Port belonging to Belfast

Nom. Horse Power as per Rule 997

Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

Trade for which vessel is intended

L ENGINES, &c.—Type of Engines Sulzer-Diesel 4 stroke cycle 2 Single or double acting Single.

Maximum pressure in cylinders 500 lbs./sq. in. Diameter of cylinders 680 m/m. Length of stroke 1200 m/m. No. of cylinders 8 No. of cranks 8.

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 470 m/m. Is there a bearing between each crank Yes

Revolutions per minute 85. Flywheel dia. 2220 m/m. Weight 8 1/4 tons. Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 424.3 m/m. as fitted 470 m/m. Crank pin dia. 470 m/m. Crank Webs Mid. length breadth Semi built Thickness parallel to axis shrunk Thickness around eyehole

Flywheel Shaft, diameter as per Rule 424.3 m/m. as fitted 470 m/m. Intermediate Shafts, diameter as per Rule 13.25" as fitted 15 3/4" Thrust Shaft, diameter at collars as per Rule 424.3 m/m. as fitted 470 m/m.

Screw Shaft, diameter as per Rule 14.75" as fitted 17" Is the tube shaft fitted with a continuous liner Yes

Liners, thickness in way of bushes as per Rule 3 1/4" as fitted 3 1/4" Thickness between bushes as per rule 5 1/8" Is the after end of the liner made watertight in the

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes

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 Yes

If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube

Length of Bearing in Stern Bush next to and supporting propeller 68" If so, state type

Propeller, dia. 18'-0" Pitch 15'-3" No. of blades 4 Material Bronze whether Moveable Yes Total Developed Surface 100 sq. feet

Method of reversing Engines Hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

Thickness of cylinder liners 53 m/m to 25 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

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

Suction Water Pumps, No. 2 sets 140 tons, 35 tons, 40 tons Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Jackets, Pistons, Overboard for Piston Returns. Diameter Stroke Can one be overhauled while the other is at work

Ge Pumps worked from the Main Engines, No. 2 — 120 tons 1 Ballast pump 150 tons

Pumps connected to the Main Bilge Line No. and Size 2 — 120 tons How driven Electric Steam LP HP

Ballast Pumps, No. and size 1 — 150 tons Lubricating Oil Pumps, including Spare Pump, No. and size 2 sets 35 tons, 3 1/2 tons

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 3 — 3 1/2" In Pump Room none

Holds, &c. none

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 — 7" 1 — 6"

all the Bilge Suction pipes in Holds and Tunnels Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

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

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

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 Yes

How are they protected

Have they been tested as per Rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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

department to another Yes Is the Shaft Tunnel watertight Engines Yes Is it fitted with a watertight door worked from

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. 2 No. of stages 3 Diameters 150, 480, 570 m/m. Stroke 600 m/m. Driven by Main engines

Auxiliary Air Compressors, No. One No. of stages 3 Capacity 180 cu ft per min. Driven by Steam

Small Auxiliary Air Compressors, No. One No. of stages 3 Capacity 120 " " " Driven by "

Scavenging Air Pumps, No. 2 Double-acting Tandem Diameter 1600 m/m. Stroke 750 m/m. Driven by main engines

Auxiliary Engines crank shafts, diameter as per Rule as fitted No. — 2 diesel generators. 1 steam generator. Position — Port side 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. 9 { 8 Cubic capacity of each 150 litres Internal diameter 300 m/m. thickness 167 m/m. 1566-1570

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 30/35 tons Working pressure by Rules 1566 & 1520 lbs./sq. in. Actual 1000 lbs./sq. in.

Starting Air Receivers, No. 2 Total cubic capacity 560 280 cu ft Internal diameter 5 ft. thickness 1" Actual 435.3 lbs./sq. in.

Seamless, lap welded or riveted longitudinal joint Yes Material Steel Range of tensile strength 28/32 tons Working pressure by Rules 435.3 lbs./sq. in. Actual 427 lbs./sq. in.

IS A DONKEY BOILER FITTED?

yes.

If so, is a report now forwarded?

yes.

Is the donkey boiler intended to be used for domestic purposes only

no.

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

Receivers

yes.

Separate Tanks

Donkey Boilers

yes.

General Pumping Arrangements

yes.

Oil Fuel Burning Arrangements

no.

SPARE GEAR.

Has the spare gear required by the Rules been supplied

yes.

State the principal additional spare gear supplied

- 3 Main Starting Air Valves Spindles.
- 8 Sets of Springs for Fuel & Starting Air Valves
- 1 Cylinder Liner.
- 7 Sets of Main Engine Piston Rings.
- 3 " " Piston Cooling Telescopic Pipes.
- 4 " " Crosshead Oil " "
- 1 " " Gears & Rollers for Valve Gear, Ahead & Astern.
- 1 Thrust Ring with liners.
- 1 - H.P. Compressed Cooler Tube stack complete.

The foregoing is a correct description.

pro WORKMAN CLARK (1928) LIMITED,

J. Cunningham

Secretary.

Manufacturer.

Dates of Survey while building
During progress of work in shops - 13.14.15.18.19.21.22.25.26.27.28
During erection on board vessel - 1.2.3.4.5.13.14.17.18.19.21.22.25.26.27.28
Total No. of visits 96

Dates of Examination of principal parts - Cylinders 3/10/30 Covers 1/7/30 to 9/10/30. Pistons 18/9/30. Rods 18/9/30. Connecting rods 11/8/30.
Crank shaft 8/8/30. Flywheel shaft ✓ Thrust shaft 8/8/30. Intermediate shafts 8/8/30. Tube shaft ✓
Screw shaft 7/7/30. 8/8/30. Propeller 8/8/30. Stern tube 25/8/30. 5/8/30. Engine seatings 18/12/30. Engines holding down bolts 18/12/30.
Completion of fitting sea connections 18/12/30. Completion of pumping arrangements 24/8/32. Engines tried under working conditions 24/8/32.

Crank shaft, Material Steel. Identification Mark LLOYD'S No 83. J.K.W. 8/8/30. Flywheel shaft, Material ✓ Identification Mark ✓
Thrust shaft, Material Steel. Identification Mark LLOYD'S No 83. J.K.W. 8/8/30. Intermediate shafts, Material Steel. Identification Marks LLOYD'S No 3561. J.K.W. 8/8/30.
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material Steel. Identification Mark LLOYD'S No 3561. J.K.W. 8/8/30.
Is the flash point of the oil to be used over 150° F. yes. SPARE LLOYD'S No 3551 J.K.W. 8/8/30.

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 ✓

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 No. If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been constructed under special survey. The materials and workmanship are sound and good. The auxiliary machinery has been efficiently installed in the vessel and the main and auxiliary machinery tried out under working conditions at a moored and sea trials with satisfactory results. In my opinion the vessel is now eligible for notation in the Society's Register Book of + LMC 8,32. C.L. Donkey boiler pressure 150 lb. Fitted for oil fuel 8,32 FP above 150° F. Electric light.

The amount of Entry Fee .. £ 6 : 0 : 0 When applied for,
Special £ 124 : 17 : 26 Aug. 1932
Donkey Boiler Fee ... £ 20 : 2 : 0 When received,
Travelling Expenses (if any) £ 6 : 6 : 5-10-1932
air renewal.
Committee's Minute FRI. 9 SEP 1932

Assigned

+ L.M.C. 8.32

C.L.

Oil Eng.

2 DR 150 lb.

John K. Williams.

Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation