

REPORT ON OIL ENGINE MACHINERY

No 10646.

28 AUG 1941

Received at London Office

Date of writing Report 6th August, 1941 When handed in at Local Office 27th August, 1941 Port of Manchester
 No. in Survey held at Manchester Date, First Survey 1st May Last Survey 28th July 1941
 Reg. Book. Single on the Triple Screw vessel. Tons ^{Gross} 10 _{Net}
 Built at Lowestoft By whom built Richards Ironworks Yard No. 281 When built 1941
 Engines made at Manchester By whom made Crosley Bros. Engine No. 125889 When made 1941
 Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 330 Owners ✓ Port belonging to ✓
 Nom. Horse Power as per Rule 116 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓
 Trade for which vessel is intended ✓

OIL ENGINES, &c. Type of Engines Direct injection heavy oil eng. 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 800 lbs. Diameter of cylinders 10.5" Length of stroke 13.5" No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 76 lbs. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 14 1/16" Is there a bearing between each crank yes

Revolutions per minute 300 Flywheel dia. 37 1/2" Weight 2166 lbs Means of ignition Compression Kind of fuel used heavy oil

Crank Shaft, Solid forged dia. of journals as per Rule APPROVED Crank pin dia. 7 1/4" Crank Webs Mid. length breadth 9 1/4" Thickness parallel to axis ✓
Cast steel as fitted 7 1/2" Mid. length thickness 3 1/32" shrunk Thickness around eye-hole ✓

Flywheel Shaft, diameter as per Rule FLYWHEEL MOUNTED Intermediate Shafts, diameter as per Rule ✓ Thrust Shaft, diameter at collars as per Rule APPROVED
as fitted CRANKSHAFT COUPLING. as fitted 4 1/4"

Tube Shaft, diameter as per Rule ✓ Screw Shaft, diameter as per Rule ✓ Is the tube ✓ shaft fitted with a continuous liner ✓
as fitted as fitted

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 ✓ 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 Direct Is a governor or other arrangement fitted to prevent racing of the engine when detached yes Means of lubrication

forced Thickness of cylinder liners 7/8" Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material WATER COOLED 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 ON M.E. 4 1/4" x 3" STROKE Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Bilge Pumps worked from the Main Engines, No. ONE Diameter 4 1/4" Stroke 3" BILGE & COOLING WATER PUMPS INTERCHANGEABLE. Can one be overhauled while the other is at work yes.

Pumps connected to the Main Bilge Line { No. and Size ✓
 How driven ✓

Is the 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 ✓

Ballast Pumps, No. and size ✓ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 IN SERIES ON MAIN ENGINE 1 3/4" x 1 1/8" x 2" STROKE

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 Pump Room ✓

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

led 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. One No. of stages 2 Diameters 5 3/4" & 2 1/2" Stroke 4" Driven by Main Engine

Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

Small Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

What provision is made for first Charging the Air Receivers ✓

Scavenging Air Pumps, No. 2 (tandem) Diameter 20 1/2" Stroke 9 1/4" Driven by Main Engine

Auxiliary Engines crank shafts, diameter as per Rule APPROVED 1-8-60 No. one Position ✓
as fitted PIN 3 1/4" DIA. WITH 2" HOLE JOURNALS 3 1/2"

Have the Auxiliary Engines been constructed under special survey yes. Is a report sent herewith no. Eng awaiting final

AIR RECEIVERS: — Have they been made under survey

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

Injection Air Receivers, No.

Cubic capacity of each

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Starting Air Receivers, No.

2

Total cubic capacity 30 cu ft

Internal diameter 2'-0 1/8"

thickness 3/8" & 15/32"

Seamless, lap welded or riveted longitudinal joint

Material S.M. Steel

Range of tensile strength

Working pressure

IS A DONKEY BOILER FITTED?

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

If so, is a report now forwarded?

PLANS.

Are approved plans forwarded herewith for Shafting

2-4-41

Receivers

28-6-40

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

Yes. For vessels engaged on short voyages.
One cylinder head complete with valves & springs.

The foregoing is a correct description

CROSSLEY BROTHERS LIMITED,

Manufacturer.

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

1-5-41, 20-5-41, 30-5-41, 19-6-41, 20-6-41, 24-6-41, 27-6-41, 24-7-41, 26-7-41, 28-7-41.

Dates of Examination of principal parts—Cylinders

Covers

Pistons

Rods

Connecting rods

Crank shaft

Flywheel shaft

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

Crank shaft, Material

Identification Mark

Flywheel shaft, Material

Identification Mark

Thrust shaft, Material

Identification Mark

Intermediate shafts, Material

Identification Marks

Tube shaft, Material

Identification Mark

Screw shaft, Material

Identification Mark

Identification Marks on Air Receivers

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

Description of fire extinguishing apparatus fitted

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 Richards Ironworks, No 280-hud. Rpt 10539

General Remarks (State quality of workmanship, opinions as to class, &c. This engine has been constructed under Special Survey, of tested materials and in accordance with the Secretary's letters, approved plans and the requirements of the Rules. The materials and workmanship are good and the engine was found to be satisfactory when tested in the shop under full load conditions. This engine is suitable in my opinion for its intended service and when satisfactorily installed and reported will be eligible to receive the notation * L.M.C. (with date)

The amount of Entry Fee

£ 3 : — : —

When applied for,

Special

£ 24 : 3 : —

27th Aug. 1941

Donkey Boiler Fee

£

When received,

Travelling Expenses (if any)

£

19

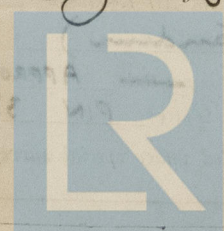
Committee's Minute

Assigned

See Lon. J.C. 110099

W. J. Ferguson

Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation