

REPORT ON OIL ENGINE MACHINERY

No 10646.

Received at London Office 28 AUG 1941

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. Number of Visits 10
 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 29/32" Thickness around eye-hole ✓

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

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 ✓
as fitted as fitted

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 ✓

EXHAUST MANIFOLD WATER COOLED

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 2 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 ✓

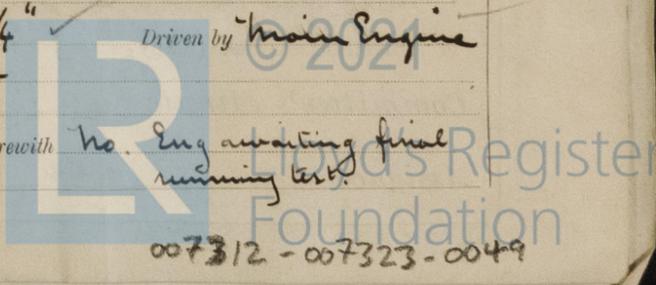
Small Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

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
as fitted PIN 3 1/4" DIA. WITH 2" HOLE JOURNALS 3 1/2" Position ✓

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



AIR RECEIVERS: - Have they been made under survey yes State No. of Report or Certificate

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

Injection Air Receivers, No. 2 Cubic capacity of each 30 cu ft

Internal diameter 2'-0 1/8" thickness 3/8" & 15/32"

Seamless, lap welded or riveted longitudinal joint yes Material S.M. Steel

Range of tensile strength Centre 28/32" Working pressure 350 lbs

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 yes Material S.M. Steel

Range of tensile strength Centre 28/32" Working pressure 350 lbs

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 2-4-41

Receivers 28-6-40

Separate Fuel Tanks yes

Donkey Boilers yes

General Pumping Arrangements yes

Pumping Arrangements in Machinery Space yes

Oil Fuel Burning Arrangements yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes. For vessels engaged on short voyages.

State the principal additional spare gear supplied 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 - 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. During erection on board vessel - [check]. Total No. of visits [check].

Dates of Examination of principal parts - Cylinders 24-6-41 Covers 24-6-41 Pistons 28-7-41 Rods [check] Connecting rods 20-5-41

Crank shaft 10-9-40 Flywheel shaft [check] Thrust shaft 28-7-41 Intermediate shafts [check] Tube shaft [check]

Screw shaft [check] Propeller [check] Stern tube [check] Engine seatings [check] Engines holding down bolts [check]

Completion of fitting sea connections [check] Completion of pumping arrangements [check] Engines tried under working conditions 24-7-41.

Crank shaft, Material O.H. Steel Identification Mark LLOYD'S NO 1291 Flywheel shaft, Material [check] Identification Mark [check]

Thrust shaft, Material O.H. Steel Identification Mark ELK 10-9-40 Intermediate shafts, Material [check] Identification Marks [check]

Tube shaft, Material [check] Identification Mark W.J.F. 28-7-41 Screw shaft, Material [check] Identification Mark [check]

Identification Marks on Air Receivers [check]

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

Description of fire extinguishing apparatus fitted [check]

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo yes

If so, have the requirements of the Rules been complied with yes

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with yes

Is this machinery duplicate of a previous case yes If so, state name of vessel Richards Ironworks, No 280 - Incl. 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) £ 1 : - : 19

W.J. Ferguson Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 2 JAN 1942

Assigned

See Lon. J.C. 110099



© 2021

Lloyd's Register Foundation