

REPORT ON OIL ENGINE MACHINERY.

London Report 115261

No. 12807.

3rd February 47

14th February 47

Port of MANCHESTER

15 FEB 1947

in Survey held at MANCHESTER.

Date, First Survey 25th November, 1946. Last Survey 6th February, 1947.

Number of Visits 9.

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

BOSTON MOSQUITO

Tons Gross 147
Net

at Lowestoft.

By whom built Richards Ironworks Ltd.

Yard No. 573. When built 1947

ines made at Openshaw.

By whom made Crossley Bros. Ltd.

Engine No. 137300. When made 1947.

key Boilers made at

By whom made

Boiler No. When made

ke Horse Power 300. 330

Owners Boston Deep Sea Fishing Co. Ltd.

Port belonging to

re Horse Power as per Rule 96.8 97

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

de for which vessel is intended

ENGINES, &c.—Type of Engines Vertical, Solid Injection, Heavy Oil. 2 or 4 stroke cycle 2. Single or double acting Single.

imum pressure in cylinders 950 lbs per sq. inch. 10 1/2". Length of stroke 13 1/2". No. of cylinders 5 No. of cranks 5.

Indicated Pressure 92 lbs per sq. inch. of bearings, adjacent to the Crank, measured from inner edge to inner edge 14 11/16". Is there a bearing between each crank Yes.

utions per minute 300. Flywheel dia. 37 1/2". Weight 2166 lbs. Means of ignition Compression Kind of fuel used Diesel Oil.

ik ft. { Solid forged dia. of journals as per Rule Approved. 7 1/2". Crank pin dia. 7 1/4". Mid. length breadth 9 1/4". Thickness parallel to axis as fitted 7 1/2". Crank Webs Mid. length thickness 3 23/32". Thickness around eyehole

heel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule Approved. 4 3/4".

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

ize 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

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

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

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

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

eller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

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

ed. 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

nducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

ing Water Pumps, No. One 4 3/4" bore x 3" stroke Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Pumps worked from the Main Engines, No. One. Diameter Stroke 3" Can one be overhauled while the other is at work

ps connected to the Main Bilge Line No. and Size How driven

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

st Pumps, No. and size Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size

two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge In Pump Room

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

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

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

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

hey 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

hey 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

pipes pass through the bunkers How are they protected

pipes pass through the deep tanks Have they been tested as per Rule

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

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

rtment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

ood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

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

lary Air Compressors, No. One. No. of stages 2. Diameters 5 3/4" x 2 1/4" Stroke 4" Driven by Main Engine.

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

provision is made for first Charging the Air Receivers

nging Air Pumps, No. One D.A. Tandem. Diameter 20 1/2". Stroke 7 3/4" Driven by Main Engine.

lary Engines crank shafts, diameter as per Rule as fitted No. Position

the Auxiliary Engines been constructed under special survey Is a report sent herewith

AIR RECEIVERS:—Have they been made under survey Yes. State No. of Report or Certificate 0.4958. & 0.5000.
Is each receiver, which can be isolated, fitted with a safety valve as per Rule Safety Valve fitted on Air Compressor Fusible Plugs on
Can the internal surfaces of the receivers be examined and cleaned Is a drain fitted at the lowest part of each receiver Yes. Receiver
Injection Air Receivers, No. 153. Cubic capacity of each 8.80 Internal diameter 10.5 thickness 0.5
• Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength by Rules Working pressure Actual
Starting Air Receivers, No. 153. Total cubic capacity 8.80 Internal diameter 10.5 thickness 0.5
Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength by Rules Working pressure Actual

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 Yes.
PLANS. Are approved plans forwarded herewith for Shafting 10.5.46. Receivers Yes. Separate Fuel Tanks Yes.
(If not, state date of approval)
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 AS PER RULE REQUIREMENTS.
State the principal additional spare gear supplied AS PER RULE REQUIREMENTS.

CROSSLEY BROTHERS LIMITED,
Certified Department
The foregoing is a correct description, and the particulars of the installation as fitted are as approved for torsional vibration characteristics.
Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1946. Nov. 25, 27. Dec. 7. 1947. Jan. 7, 8, 10, 15, 20, 21. February, 3, 6.
During erection on board vessel --
Total No. of visits
Dates of Examination of principal parts—Cylinders 7.12.46. Covers 3.5.46, 15.8.46., 21.1.47. Rods Connecting rods 21.1.47.
Crank shaft 25.11.46. Flywheel shaft Thrust shaft 21.1.47. 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 O.H. Steel. Identification Mark LLOYD'S 2994 D.T. 7.11.46. Identification Mark
Thrust shaft, Material O.H. Steel. Identification Mark LLOYD'S 2998 B.M. 21.1.47. Identification Mark
Tube shaft, Material Identification Mark Intermediate shafts, Material Identification Mark
Identification Marks on Air Receivers E. 5308. LLOYD'S TEST 700 lbs. W.P. 350 lbs. T.D.S. 3.1.47. E. 5354. LLOYD'S TEST 700 lbs. W.P. 350 lbs. H.F.M. 22.1.47.

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
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
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. This engine has been constructed under special survey of tested materials, and is in accordance with Secretary's letters, approved plans and Rule Requirements.

Materials and workmanship are of good quality and the engine, when tested in the shops under full load conditions, gave satisfactory results.

The torsional vibration calculations have been examined and approved in Secretary's letter of 1.10.46 for a service speed of 300 R.P.M.

The fuel oil service tank and the mountings of the air receivers have been hydraulically tested with satisfactory results.

In my opinion, this engine is suitable for installation in a vessel to be classed with the Society and, when satisfactorily reported upon, to receive the record of T.M.C. with date.

The amount of Entry Fee £ 21. 10. 0. When applied for, 14.5.47. 19. 0. 0.
2/3 Special £ 19. 0. 0. When received, 19. 0. 0.
Donkey Boiler Fee £ 1. 0. 0.
Travelling Expenses (if any) £ 1. 0. 0.
Committee's Minute
Assigned Sir F.E. mchly opt.
29 AUG 1947
Engineer Surveyor to Lloyd's Register of Shipping
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