

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 115261

Date of writing Report 3-7-1947 When handed in at Local Office 4 JUL 1947

Port of Sp. Suich

Received at London Office

4 JUL 1947

No. in Survey held at eg. Book.

Date, First Survey 11 FEBRUARY 1947 Last Survey 2-7-1947.

Number of Visits NINE

Single  
on the Twin  
Triple  
Quadruple

Screw vessel

hutch Launch "BOSTON MOSQUITO"

Tons Gross  
Net

Built at Lowesloft

By whom built Richards Ironworks Ltd.

Yard No. 373 When built 1947.

Engines made at Manchester

By whom made Crossley Bros. Ltd.

Engine No. 3730 When made 1947.

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power

(300) 330

Owners Boston Deep Sea Fishing &amp; Ice Co. Ltd.

Port belonging to Lowesloft.

Horse Power as per Rule

97.

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Made for which vessel is intended

M.N. 105.

Fishing purposes.

## ENGINES, &amp;c.—Type of Engines

2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Position of bearings, adjacent to the Crank, measured from inner edge to inner edge

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank Shaft, dia. of journals

as per Rule

Crank pin dia.

Crank Webs

Mid. length breadth

Thickness parallel to axis

Flywheel Shaft, diameter

as per Rule

Intermediate Shafts, diameter

as per Rule

Thrust Shaft, diameter at collars

as per Rule

Screw Shaft, diameter

as per Rule

Screw Shaft, diameter

as per Rule

Is the

screw

shaft fitted with a continuous liner

No

Copper 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

If so, state type

Not approved type

Length of Bearing in Stern Bush next to and supporting propeller 22 3/4"

Propeller, dia.

62"

Pitch

46"

No. of blades

4

Material

C.I.

whether Moveable

No

Total Developed Surface 9 1/2 sq. feet

## Method of reversing Engines

Is a governor or other arrangement fitted to prevent racing of the engine when declutched

Means of lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled or lagged with

conducting material

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.

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Large Pumps worked from the Main Engines, No.

Diameter

Stroke

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

One 4 1/4" x 3"

One 20 ton. Cent. pump.

How driven

Main Engine

Aux. Engine

Blast Pumps, No. and size

One 20 tons

Lubricating Oil Pumps, including Spare Pump, No. and size

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

2-2 1/2"

One 2"

One 4" hand pump

2" suction

Holds, &amp;c.

Fish Hold. One - 2". One - 4" hand pump.

Forecath Space

One 4" hand pump

2" suction

After accommodation

One 4" hand pump

2" suction

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

One - 2 1/2"

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

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

Are all Sea Connections fitted direct on the skin of the ship

Are they fitted with Valves or Cocks

Valves

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

Both

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

None

How are they protected

What pipes pass through the deep tanks

None

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

apartment to another

Is the Shaft Tunnel watertight

None

Is it fitted with a watertight door

worked from

On 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.

No. of stages

Diameters

Stroke

Driven by

Auxiliary Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Small Auxiliary Air Compressors, No.

No. of stages

Two

Diameters

3 3/4" - 1 1/8"

Stroke

3 1/4"

Driven by

Aux. Engine

Savenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

See Manchester Report No. 12877.

## RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Are the internal surfaces of the receivers be examined

What means are provided for cleaning their inner surfaces

Is there a drain arrangement 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

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *Line Shafting 12/46* Receivers *✓*  
(If not, state date of approval)

Separate Tanks *5-12-46*  
*16-1-47*

Donkey Boilers *✓*

General Pumping Arrangements *6-11-46*

Oil Fuel Burning Arrangements *✓*

SPARE GEAR *0*

The foregoing is a correct description,  
For **RICHARDS IRONWORKS Limited.**

*Richards*

Manufacturer.

Dates of Survey while building  
During progress of work in shops - *✓*  
During erection on board vessel - *1947: Feb 11-28 Mar 7-19 June 5-16 26-30 July 2*  
Total No. of visits *NINE*

Dates of Examination of principal parts—Cylinders *✓* Covers *✓* Pistons *✓* Rods *✓* Connecting rods *✓*  
Crank shaft *✓* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *28-2-47* Tube shaft *✓*  
Screw shaft *28-2-47* Propeller *28-2-47* Stern tube *28-2-47* Engine seatings *28-2-47* Engines holding down bolts *5-6-47*  
Completion of fitting sea connections *28-2-47* Completion of pumping arrangements *2-7-47* Engines tried under working conditions *30-6-47*  
Crank shaft, Material *✓* Identification Mark *✓* Flywheel shaft, Material *✓* Identification Mark *✓*  
Thrust shaft, Material *✓* Identification Mark *✓* Intermediate shafts, Material *Stal* Identification Marks *440 YDS. 440 YDS. 440 YDS.*  
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Stal* Identification Mark *440 YDS. 440 YDS. 440 YDS.*

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 *✓*

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 *✓*

Is this machinery duplicate of a previous case *✓*

If so, state name of vessel *"BOSTON SPITFIRE"*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*The Machinery. Transducer Reports 12807 and 12877, has been efficiently fitted on board the vessel in accordance with the Rule Requirements & Secretariat's letter. The materials & workmanship are of good description. The machinery has been examined under working conditions and found satisfactory & is eligible, in my opinion to be Classed + L.M.C. 6-47.*

The amount of Entry Fee ... £ : : When applied for, *14 JUL 1947*  
Special *Unusually* *10 : 10 : 0*  
Donkey Boiler Fee ... £ : : When received, *19*  
Travelling Expenses (if any) £ : : *19*

Committee's Minute

*29 AUG 1947*

Assigned *+ LMC 6,47 Oil Eng.*

*Boysell*  
Engineer Surveyor to Lloyd's Register of Shipping



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