

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 9-11-1933 When handed in at Local Office 14 NOV. 1933 Received at London Office 15 NOV 1933  
 No. in Survey held at Fleetwood Date, First Survey Oct 25 Last Survey Nov 3 1933  
 Reg. Book. 12069 on the Steam Trawler "Loch hero" (Number of Visits 9)  
 Built at S. Shields By whom built J.P. Rennoldson & Sons Ltd. Yard No. Tons Gross 276 Net 113  
 Engines made at S. Shields By whom made J.P. Rennoldson & Sons Ltd. Engine No. 847 When built 1920  
 Boilers made at Abburn-on-Lyne By whom made Palmer's Shipbuilding & Iron Works Ltd. Boiler No. 2659 When made 1920  
 Registered Horse Power 69 Owners Boston Deep Sea Fishing & Ice Co. Ltd. Port belonging to London  
 Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes  
 Trade for which Vessel is intended Fishing (trawler)

ENGINES, &c.—Description of Engines Triple Expansion reciprocating inverted. Revs. per minute 106-108.  
 Dia. of Cylinders 12½, 21, 35 Length of Stroke 26 No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 6¾ Crank pin dia. 7½ Crank webs Mid. length breadth 10¾ Mid. length thickness 4¾ Thickness parallel to axis 4¾ Thickness around eye-hole 3½-3¾  
 Intermediate Shafts, diameter as per Rule 6¾ as fitted 7½ Thrust shaft, diameter at collars as per Rule 6¾ as fitted 7½  
 Tube Shafts, diameter as per Rule 7½ as fitted 7½ Is the tube screw shaft fitted with a continuous liner Yes  
 Screw Shaft, diameter as per Rule 7½ as fitted 7½  
 Bronze Liners, thickness in way of bushes as per Rule ½ as fitted ½ Thickness between bushes as per Rule ¾ as fitted ¾ Is the after end of the liner made watertight in the propeller boss Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner One length  
 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 Tight fit  
 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 Yes  
 If so, state type Length of Bearing in Stern Bush next to and supporting propeller 39"  
 Propeller, dia. 9'6" Pitch 10'3" No. of Blades 4 Material Cast iron whether Movable No Total Developed Surface 33 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2½ Stroke 12½ Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2½ Stroke 12½ Can one be overhauled while the other is at work Yes  
 Feed Pumps No. and size one 6x3x6 Pumps connected to the Main Bilge Line No. and size one 6x4x6 & one 2"  
 How driven Ind. Single Cyl. How driven Ind. Single St Cyl. Steam Ejector  
 Ballast Pumps, No. and size One 6x4x6 Lubricating Oil Pumps, including Spare Pump, No. and size 1  
 Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps: In Engine and Boiler Room Thru 2" and one 2" portable hose connection  
 In Pump Room In Holds, &c. Forepeak one 2", forehold one 2" fishroom 1-2" & 1-2"  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size One 3¾ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Thru 2"  
 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
 Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Overboard Discharges above or below the deep water line Above  
 Are 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  
 What Pipes pass through the bunkers Bilge Suctions to forepeak hold & fishroom and then up and to tank in hold How are they protected Steel casing & which pipes asbestos covered in addition  
 What pipes pass through the deep tanks Have they been tested as per Rule Yes  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
 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 Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door worked from Yes

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 1619  
 Is Forced Draft fitted No. and Description of Boilers 15 B Working Pressure 180 lb/ft.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? Yes

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

PLANS. Are approved plans forwarded herewith for Shafting (If not state date of approval) Main Boilers Auxiliary Boilers Donkey Boilers

Superheaters General Pumping Arrangements Oil fuel Burning Piping Arrangements

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied 1 Spring for Safety Valves of Boilers, 1 main Check Valve, 1 Auxiliary Check Valve, 1 set Air pump valves, 2 sets piston pump rings for auxiliary pumps, 7 tub stoppers, 1 set of stocks & dies, Boilers Tube Expander, 1 dry gauge glasses & washers, 3 Boiler door joints.

The foregoing is a correct description,

Manufacturer.



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W 595-0171



PILLA

Dates  
of Survey  
while  
building

During progress of  
work in shops - -

During erection on  
board vessel - -

Total No. of visits

9

Dates of Examination of principal parts—Cylinders

30-10-33

Slides

30-10-33

Covers

30-10-33.

Pistons

30-10-33.

Piston Rods

30-10-33.

Connecting rods

30-10-33.

Crank shaft

30-10-33.

Thrust shaft

30-10-33

Intermediate shafts

✓

Tube shaft

✓

Screw shaft

1-11-33

Propeller

1-11-33.

Stern tube

1-11-33.

Engine and boiler seatings

2-11-33.

Engines holding down bolts

2-11-33.

Completion of fitting sea connections

✓

Completion of pumping arrangements

✓

Boilers fixed

✓

Engines tried under steam

3-11-33.

Main boiler safety valves adjusted

31-10-33

Thickness of adjusting washers

7/16" port 5/16" starboard.

Crank shaft material

✓

Identification Mark

B.C. 5945 JL

3.10.19.

Thrust shaft material

✓

Identification Mark

✓

Intermediate shafts, material

✓

Identification Marks

✓

Tube shaft, material

✓

Identification Mark

✓

Screw shaft, material

✓

Identification Mark

✓

Steam Pipes, material

Cpu

Test pressure

400 lb

Date of Test

28-10-33

Is an installation fitted for burning oil fuel

no

Is the flash point of the oil to be used over 150°F.

✓

Have the requirements of the Rules for the use of oil as fuel been complied with

✓

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

no

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

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

The machinery of this vessel appears to have been built under British Corporation Rules & Survey. The machinery has been opened up and examined, and found in good condition, while the materials and workmanship appear good. The machinery has been tried satisfactorily under working conditions. The machinery is in my opinion eligible to be classed in the Register Book with the record of L.M.C. 11, 33 and T.S. (C) 11, 33.

The amount of Entry Fee ... £

Special ... £

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

19

When received,

19

Committee's Minute

LIVERPOOL

14 NOV. 1933

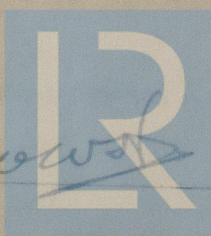
Assigned

See attached

Survey Report.

W. S. Shields

Engineer Surveyor to Lloyd's Register of Shipping.



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