

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

-5 FEB 1937

Received at London Office

4 FEB 1937

Date of writing Report

19

When handed in at Local Office

- 4 FEB 1937

Port of

SUNDERLAND.

No. in Survey held at

SUNDERLAND.

Date, First Survey

7 Oct 36

Last Survey

30 Jan 1937

Reg. Book

on the

ARTHUR WRIGHT

Built at

Sunderland

By whom built

W. Pickersgill &amp; Sons, Ltd.

Yard No.

236

When built

1937

Engines made at

Sunderland

By whom made

R.E. Marine Eng. Co. Ltd

Engine No.

2868

When made

1937

Boilers made at

Sunderland

By whom made

R.E. Marine Eng. Co. Ltd

Boiler No.

2868

When made

1937

Registered Horse Power

Owners

The Mayor, Aldermen, Burgesses of the County Borough of Brighton

Port belonging to

Shoreham

Nom. Horse Power as per Rule

124

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

COAL TRANSPORT

ENGINES, &c.—Description of Engines Triple Expansion Reciprocating Poppet Valve H.P. & I.P. ✓ Revs. per minute 88

Dia. of Cylinders 14 1/2", 24", 41" Length of Stroke 30" No. of Cylinders 3 ✓ No. of Cranks 3 ✓

Crank shaft, d.a. of journals as per Rule 8 3/8" Crank pin dia. 8 3/8" Crank webs Mid. length breadth ✓ Thickness parallel to axis 5 1/2" (P. 5 3/8")

Intermediate Shafts, diameter as per Rule 8 3/8" as fitted Thrust shaft, diameter at collars as per Rule 8 1/2" as fitted

Tube Shafts, diameter as per Rule 8 3/8" as fitted Screw Shaft, diameter as per Rule 9" as fitted Is the tube shaft fitted with a continuous liner? ✓

Bronze Liners, thickness in way of bushes as per Rule 9/16" as fitted Thickness between bushes as per Rule 1/2" as fitted 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? ✓

Propeller, dia. 11' 9" Pitch 13' 3" No. of Blades 4 Material C.I. ✓ Whether Moveable? not Total Developed Surface 49 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 1' 3" Can one be overhauled while the other is at work? ✓

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 1' 3" Can one be overhauled while the other is at work? ✓

Feed Pumps No. and size 1, 6" x 6" ✓ How driven Steam ✓ Pumps connected to the Main Bilge Line No. and size 1, 9" x 10" x 10" ✓ How driven Steam ✓

Ballast Pumps, No. and size 1, 9" x 10" x 10" ✓ 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 ✓ Engine Room, one 2 1/2" dia. Boiler Room, one 2 1/2" dia. In Pump Room ✓ In Holds, &c. No. 1. 2 at 2 1/2" dia. No. 2. 2 at 2 1/2" dia. ✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1, 2 1/2" dia. ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1, 2 1/2" dia. ✓

Are all the Bilge Suction Pipes in holds and twin I well fitted with strum-boxes? ✓

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? ✓

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 tilting the stokehold plates? ✓ 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? ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate? ✓

What Pipes pass through the bunkers? ✓ How are they protected? Heavy wooden timbers ✓

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? ✓

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 1722 sq. ft. ✓

Is Forced Draft fitted? yes ✓ No. and Description of Boilers 1, Multi-tubular Cylindrical Working Pressure 200 lbs. ✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes ✓

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 7/4/36 Main Boilers yes ✓ Auxiliary Boilers ✓ Donkey Boilers yes ✓

(If not state date of approval)

Superheaters no ✓ General Pumping Arrangements yes ✓ 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 main check valve lid ✓ 6 piston studs & nuts ✓ 2 roller bearings for poppet gear ✓

1 auxiliary check valve lid ✓ 4 valve chest studs ✓ 1 Tappet Valve each H.P. & I.P. ✓

6 gauge glasses ✓ 6 condenser tubes ✓ 14 outlet springs each H.P. & I.P. ✓

50 condenser frames ✓ 1 set ballast donkey valves ✓

5 plain boiler tubes ✓ 1 set feed donkey valves ✓

For site used in this contract 1 propeller (cut down) &amp; 1 screw shaft.

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD.

Wm. A. Berry.

MANAGER

Manufacturer.



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During progress of work in shops - - 1936. Oct. 7, 20, 22, 29, 30, 31. Nov. 2, 6, 7, 9, 12, 13, 17, 19, 23, 24, 25, 26, 27, 30. Dec. 1, 2, 7, 8, 10, 11, 14, 16, 17, 18, 21, 22, 28, 29, 30. 1937. Jan. 4, 7, 8, 11, 12, 14, 18, 20, 22, 23, 25, 26, 27, 28, 30.  
 Dates of Survey while building {  
 During erection on board vessel - - -  
 Total No. of visits 50

Dates of Examination of principal parts—Cylinders 22/12/36, 4/1/37 Slides & pistons 7/1/37 Covers 12/1/37  
 Pistons 16/12/36 Piston Rods 4/1/37 Connecting rods 7/1/37  
 Crank shaft 30/12/36 Thrust shaft 30/12/36 Intermediate shafts —  
 Tube shaft — Screw shaft 30/12/36 Propeller 8/1/37  
 Stern tube 29/12/36 Engine and boiler seatings 14/12/36 Engines holding down bolts 25/1/37  
 Completion of fitting sea connections 14/12/36  
 Completion of pumping arrangements 28/1/37 Boilers fixed 23/1/37 Engines tried under steam 26/1/37  
 Main boiler safety valves adjusted 26/1/37 Thickness of adjusting washers Port + Starboard 3/8", Super Heat 5/16"  
 Crank shaft material steel Identification Mark No. 347. Thrust shaft material steel Identification Mark No. 344  
 Intermediate shafts, material — Identification Marks — Tube shaft, material — Identification Mark —  
 Screw shaft, material steel Identification Mark No. 346 Steam Pipes, material S.D. steel Test pressure 600 lb. Date of Test 21/12/36  
 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 not desired  
 Is this machinery duplicate of a previous case yes If so, state name of vessel "HENRY MOON"  
 General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey in accordance with the approved plans, Secretary's letters and the requirements of the Rules. Workmanship and materials are good. The machinery has been efficiently installed on board, tried under working conditions and found satisfactory and eligible, in my opinion, for the

Notation # L.M.C. 1-37., C.L..

L. R. Home

The amount of Entry Fee ... £ 3 : : When applied for,  
 Special ... £ 31 : : - 8 FEB. 1937  
 Donkey Boiler Fee ... £ : : When received,  
 Travelling Expenses (if any) £ : : 12-2 1937 1/13/12

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned + Linc 1.37

Spt FD. CL

