

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

16 NOV 1936

Date of writing Report 19 When handed in at Local Office 11th Nov 1936 Port of Sunderland
 No. in Survey held at Sunderland Date, First Survey 31st July Last Survey 6th Nov 1936
 Reg. Book on the "SPRINGWAVE."
 Built at Sunderland By whom built Messrs Shand, Buos Ltd. Yard No. 447. When built 1936
 Engines made at Sunderland By whom made Messrs N.E. Lugg Co Ltd. Engine No. 2861 When made 1936
 Boilers made at Sunderland By whom made Messrs N.E. Lugg Co Ltd. Boiler No. 2861 When made 1936
 Registered Horse Power Owners Springwell Shipping Co Ltd Port belonging to London
 Nom. Horse Power as per Rule 119 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes
 Trade for which Vessel is intended

ENGINES, &c.—Description of Engines Triple Expansion (Poppet valves on HP) Revs. per minute 105
 Dia. of Cylinders 13¹/₂" x 23" x 38" Length of Stroke 27" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, d.a. of journals as per Rule 7¹/₂" as fitted 7¹/₂" Crank pin dia. 7¹/₂" Crank webs Mid. length breadth 13" Mid. length thickness 4¹/₂" Thickness parallel to axis 4¹/₂" Thickness around eye-hole 3¹/₂" pin 4¹/₂" journal
 Intermediate Shafts, diameter as per Rule 7.15" as fitted none Thrust shaft, diameter at collars as per Rule 7¹/₂" as fitted 7¹/₂"
 Tube Shafts, diameter as per Rule 8.066" as fitted 8¹/₂" Is the shaft fitted with a continuous liner Yes
 Screw Shaft, diameter as per Rule 5.41" as fitted 5.41" Is the after end of the liner made watertight in the propeller boss Yes
 Bronze Liners, thickness in way of bushes as per Rule 9.16" as fitted 9.16" Thickness between bushes as per Rule 1.2" as fitted 1.2"
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
 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 Yes
 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 Yes
 Propeller, dia. 11'-0" Pitch 10'-0" No. of Blades 4 Material C.I. whether Moveable No. Total Developed Surface 472 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 1/4" Stroke 15" Can one be overhauled while the other is at work Yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 1/4" Stroke 15" Can one be overhauled while the other is at work Yes
 Feed Pumps No. and size One 7" x 5" x 12" Pumps connected to the Main Bilge Line No. and size One 8 1/2" x 10" x 18" How driven Steam
 Ballast Pumps, No. and size One 8 1/2" x 10" x 18" 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;—In Engine and Boiler Room One 4" Well - 3" Two - ER wings - 2 1/2" Two - BR wings - 2 1/2"
 In Pump Room Two - Main hold - 3" In Holds, &c. Two - Fore hold - 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 4" dia Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One - 3 1/2"
 Are all the Bilge Suction Pipes in holds and turn l 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 How are they protected
 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 none Is it fitted with a watertight door worked from

MAIN BOILERS, &c.—(Letter for record S.) Total Heating Surface of Boilers 1820 sq. ft.
 Is Forced Draft fitted Yes No. and Description of Boilers Two cylindrical S.E. Working Pressure 200 lbs/sq. in.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?
 Is the donkey boiler intended to be used for domestic purposes only
 PLANS. Are approved plans forwarded herewith for Shafting 3/5/36 Main Boilers Yes Auxiliary Boilers Donkey Boilers
 Superheaters None General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements

SPARE GEAR.

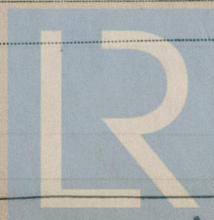
Has the spare gear required by the Rules been supplied Yes
 State the principal additional spare gear supplied One S.C.I. propeller. One safety valve spring. One main and one donkey check valve lid. 10 Condenser tubes and 12 ferrules. 10 boiler tubes. One set of top end braces. One set of bottom end bearings. One set of thrust pads. One set each of air, circulating and fuel donkey pumps valves. One set of HP rings and springs for piston.

For Poppet Valve Gear:— One Poppet Valve. One Spindle and bush and 2 Cam rollers.

The foregoing is a correct description,
 FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD.

Manufacturer.

MANAGER



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W445-0107

During progress of work in shops - - -

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits

1936. July 31. Aug. 4, 11, 12, 17, 19, 24, 28. Sep. 1, 2, 4, 8, 15, 18, 21, 22, 23, 24, 25, 28, 29. Oct. 1, 2, 3, 5, 6, 8, 9, 12, 13, 14, 15, 16, 19, 20, 22, 23, 24, 27, 28, 29, 30, 31. Nov. 2, 4, 6.

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Dates of Examination of principal parts—Cylinders 29/9/36 Slides 3/10/36 Covers 3/10/36

Pistons 9/10/36 Piston Rods 13/10/36 Connecting rods 15/10/36

Crank shaft 22/9/36 Thrust shaft 22/9/36 Intermediate shafts —

Tube shaft — Screw shaft 28/9/36 Propeller 28/9/36

Stern tube 25/9/36 Engine and boiler seatings 19/10/36 Engines holding down bolts 2/10/36

Completion of fitting sea connections 28/9/36

Completion of pumping arrangements 4/11/36 Boilers fixed 23/10/36 Engines tried under steam 4/11/36

Main boiler safety valves adjusted 4/11/36 Thickness of adjusting washers Port 3/8" Rod 3/8" Off 5/16" Super. Lead. 8964

Crank shaft material S. T. Steel Identification Mark N° 8964 Thrust shaft material S. T. Steel Identification Mark N° 22936

Intermediate shafts, material Identification Marks N° 8964 Tube shaft, material Identification Mark —

Screw shaft, material S. T. Steel Identification Mark N° 25936 Steam Pipes, material Steel Test pressure 600 lbs. Date of Test 24/10/36

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 ✓ 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. 46 If so, state name of vessel Springwood Spring wear.

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

This machinery 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 and tried under steam and is, in my opinion, eligible for the NOTATION + L. M. C. 11.36. C.L.

SUNDERLAND.

Certificate to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ 3 : : When applied for,

Special ... £ 29 : 15 : 11 NOV. 1936

Donkey Boiler Fee ... £ : : When received,

Travelling Expenses (if any) £ : : 1.12.34 19/12

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 20 NOV 1936

Assigned

+ Linc 11.36
J.D. C.H. Sph.

FRI. 4 DEC 1936



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