

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

23 JAN 1930

Date of writing Report 19 When handed in at Local Office 22 JAN 1930 Port of Sunderland
No. in Survey held at Sunderland Date, First Survey Sep 9 '20 Last Survey 22 Jan 1930
Reg. Book. on the S.S. "ENGLAND" (Number of Visits 44)

Built at Sunderland By whom built Messrs Swan, Hunter & Wigham Richardson Card No. 1415 Tons { Gross 2297 Net 1359
Engines made at Sunderland By whom made Messrs N.E. Marine Eng' Co. Ltd. Engine No. 2728 When built 1930
Boilers made at Sunderland By whom made Messrs N.E. Marine Eng' Co. Ltd. Boiler No. 2728 when made 1930
Registered Horse Power Owners Alfred Christensen Port belonging to KØBENHAYN
Nom. Horse Power as per Rule 201 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
Trade for which Vessel is intended General Cargo Purposes

ENGINES, &c.—Description of Engines Triple Expansion Compound. Revs. per minute 72 1/2
Dia. of Cylinders 20"-32"-53" Length of Stroke 36" No. of Cylinders Three No. of Cranks Three
Crank shaft, dia. of journals as per Rule 10.28" Crank pin dia. 10 1/2" Mid. length breadth shrunk Thickness parallel to axis 6 1/16"
as fitted 10 1/2" Crank webs Mid. length thickness Thickness around eye-hole 5 1/4"
Intermediate Shafts, diameter as per Rule 9.79" Thrust shaft, diameter at collars as per Rule 10.28"
as fitted 9 7/8" as fitted 10 1/2"
Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 11.02" Is the screw shaft fitted with a continuous liner Yes!
as fitted 11 5/8" as fitted 11 5/8" as fitted 5 1/8" Thickness between bushes as per Rule 4.75
Bronze Liners, thickness in way of bushes as per Rule 4.75 Is the after end of the liner made watertight in the propeller boss Yes.
as fitted 4 1/16" as fitted 5 1/8" 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 Yes. Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No. Length of Bearing in Stern Bush next to and supporting propeller 3'-10 1/2"

Propeller, dia. 14'-9" Pitch 14'-0" No. of Blades 4 Material Cast Steel whether Movable No. Total Developed Surface 68 sq. feet
Feed Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 18" Can one be overhauled while the other is at work Yes
Bilge Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 18" Can one be overhauled while the other is at work Yes
Feed Pumps No. and size One, 6" x 4" x 6" Pumps connected to the Main Bilge Line No. and size One, 8" x 9" x 8"
How driven Steam How driven Steam
Ballast Pumps, No. and size One, 8" x 9" x 8" Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 4 - 2 1/2"
In Holds, &c. Fore Hold 2-3" Hold Well - One - 3" and One, 2" dia in Tunnel Well.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 6" dia Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size One - 4" dia
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 None How are they protected
What pipes pass through the deep tanks None 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 Yes worked from Upper Platform

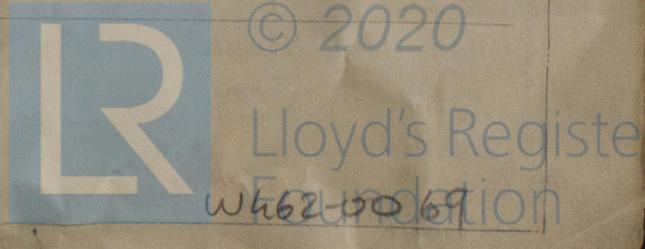
MAIN BOILERS, &c.—(Letter for record (5)) Total Heating Surface of Boilers 3340 sq ft
Is Forced Draft fitted No. No. and Description of Boilers Two, S.E. Marine Type. Working Pressure 180 lbs/sq in
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes 255.
IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting Main Boilers Yes Auxiliary Boilers Donkey Boilers
(If not state date of approval)
Superheaters Standard Approved General Pumping Arrangements Oil fuel Burning Piping Arrangements
SPARE GEAR. State the articles supplied:— One, C.I. propeller. 2 Bottom End Bolts and Nuts. 2 Top End Bolts and Nuts. 2 Main Bearing Bolts and Nuts. 6 Coupling Bolts and Nuts.
2 Feed Pump Valves. 2 Bilge Pump Valves. 2 Cut Iron Plates. 1 Cut Iron Bar.
50 Bolts and Nuts. 2 Safety Valve Springs.

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

John Nall
Manager.

Manufacturer.



1929. Sep. 9, 20, 28. Oct. 3, 4, 11, 18, 24, 30. Nov. 5, 7, 12, 15, 18, 20, 22, 25, 26, 28, 29. Dec. 2, 3.
 4, 5, 6, 9, 10, 11, 12, 13, 16, 17, 18, 23, 24, 27, 30, 31. 1930. Jan. 3, 6, 7, 8, 10, 22.
 During progress of work in shops - -
 During erection on board vessel - - -
 Total No. of visits 44

Dates of Examination of principal parts—Cylinders MP. 13-11-29 LP. 29-11-29 H.P. 3-12-29 Slides 11-12-29 Covers 5-12-29
 Pistons 5-12-29 Piston Rods 5-12-29 Connecting rods 5-12-29
 Crank shaft 25-11-29 Thrust shaft 20-11-29 Intermediate shafts 10-12-29
 Tube shaft - Screw shaft 25-11-29 Propeller Working Spare. 16-12-29 23-12-29
 Stern tube 2-12-29 Engine and boiler seatings 27-12-29 Engines holding down bolts 7-1-30
 Completion of fitting sea connections 16-12-29
 Completion of pumping arrangements 10-1-30 Boilers fixed 3-1-30 Engines tried under steam 10-1-30
 Main boiler safety valves adjusted 10-1-30 Thickness of adjusting washers Port. $5 \frac{13}{32}$ " Supt $5 \frac{1}{16}$ " Star $5 \frac{13}{32}$ " Supt $5 \frac{1}{16}$ "
 Crank shaft material Seamless Steel Identification Mark 3222 M.C. Thrust shaft material Seamless Steel Identification Mark 3222. WB
 Intermediate shafts, material Seamless Steel Identification Marks 3222 M.C. Tube shaft, material - Identification Mark -
 Screw shaft, material Seamless Steel Identification Mark 3222 M.C. Steam Pipes, material L.W. Steel Test pressure 540 lbs/sq. in. Date of Test 31-12-29
 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 carrying and burning oil fuel 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. The Engines and Boilers of this Vessel have been built under Special Survey, and the Materials and Workmanship are good. On completion the machinery was tried under a full head of steam with satisfactory results.
 The Machinery of this vessel is now in a good and efficient condition, and eligible in my opinion to have the Notation *L.M.C. - 1-30. marked in red in the Society's Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1-30 et.
 J.M. 23/1/30
 P.

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

The amount of Entry Fee ... £ 4 : 0 :
 Special ... £ 50 : 5 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 18 JAN. 1930
 When received, 24.1.30

Matthew Caldwell.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 24 JAN 1930
 Assigned + L.M.C. 1-30