

Rpt. 4.

No. 30263

## 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  
Reg. Book.

Sunderland

Date, First Survey

Sep. 9 '20

Last Survey

22 Jan

1930

on the

S.S. "ENGLAND"

(Number of Visits 44)

Built at

Sunderland

By whom built

Messrs Swan, Hunter &amp; Wigham Richardson

Hull No.

1415

Tons

Gross

2297

Net

1359

When built

1930

Engines made at

Sunderland

By whom made

Messrs N.E. Marine Eng. Co. Ltd.

Engine No.

2728

when made

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

KØBENHAVN

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, &amp;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"

as fitted 10 1/2"

Crank pin dia.

10 1/2"

Crank webs

Mid. length breadth

shrunk

Thickness parallel to axis

6 1/16"

Thickness around eye-hole

5 1/4"

Intermediate Shafts, diameter

as per Rule

as fitted

9.79"

Thrust shaft, diameter at collars

as per Rule

as fitted

10.28"

10 1/2"

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted

11.02"

11 5/8"

Is the

tube

screw

shaft fitted with a continuous liner

Yes

Bronze Liners, thickness in way of bushes

as per Rule

as fitted

6.33"

Thickness between bushes

as per Rule

as fitted

4.75"

5/8"

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

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

No. and size

One 8" x 9" x 8"

How driven

Steam

Main Bilge Line

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, &amp;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

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

Yes

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, &amp;c.—(Letter for record (S))

Total Heating Surface of Boilers

3340

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?

Yes

## PLANS.

Are approved plans forwarded herewith for Shafting

Yes

Main Boilers

Yes

Auxiliary Boilers

Yes

Donkey Boilers

Yes

(If not state date of approval)

Superheaters Standard Approved General Pumping Arrangements

Yes

Oil fuel Burning Piping Arrangements

Yes

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.



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Lloyd's Register

Foundation



Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits

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.

Dates of Examination of principal parts—Cylinders MP. 13-11-29 HP. 3-12-29 LP. 29-11-29 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.  $5\frac{3}{8}$ " Supt.  $5\frac{1}{16}$ " Star.  $5\frac{13}{32}$ " Supt.  $5\frac{13}{32}$ "

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 CL.

J.M. 23/1/30.

J.L.

SUNDERLAND.

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 CL.



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