

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

6 JUN 1930

Date of writing Report

19

When handed in at Local Office

5 JUNE 1930

Port of

Sunderland

No. in Survey held at
Reg. Book.

Sunderland

Date, First Survey

1st

Jan '30

Last Survey

June 5 1930

(Number of Visits 43)

on the

S.S. HARBERTON

Built at

Sunderland

By whom built

Thos Bros Ltd.

Yard No.

442

Tons

Gross 4585

Net 2728

When built

1920

Engines made at

Do

By whom made

Geo Rank Ltd

Engine No.

1188

when made

1920

Boilers made at

Do

By whom made

Do

Boiler No.

1188

when made

1920

Registered Horse Power

Owners

National Shipping Co Ltd

Port belonging to

London

Nom. Horse Power as per Rule

417

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

General

ENGINES, &c.—Description of Engines

Triple expansion

Revs. per minute 70

Dia. of Cylinders

25"-41"-68"

Length of Stroke

145"

No. of Cylinders

3

No. of Cranks

3

Crank shaft, dia. of journals

as per Rule 12.898

as fitted 13 7/8"

Crank pin dia.

13 7/8"

Crank webs

Mid. length breadth

19 1/2"

Thick. parallel to axis

8 5/8"

Intermediate Shafts, diameter

as per Rule 12.284

as fitted 12 7/16"

Thrust shaft, diameter at collars

as per Rule 12.898

as fitted 13 3/8"

Tube Shafts, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule 13.744

as fitted 14 3/16"

Is the {tube} shaft fitted with a continuous liner

{screw}

Yes

Bronze Liners, thickness in way of bushes

as per Rule 22.9/32

as fitted 3/4"

Thickness between bushes

as per Rule

as fitted 3/4"

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

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 shaft

No

Length of Bearing in Stern Bush next to and supporting propeller

4'-9"

Propeller, dia.

17'-6"

Pitch

16'-0"

No. of Blades

4

Material

Brass

whether Movable

No

Total Developed Surface

104

sq. feet

Feed Pumps worked from the Main Engines, No.

None

Diameter

Stroke

Can one be overhauled while the other is at work

Bilge Pumps worked from the Main Engines, No.

2

Diameter

Stroke

26"

Can one be overhauled while the other is at work

Yes

Feed Pumps

No. and size

How driven

Pumps connected to the

No. and size

How driven

Main Bilge Line

Ballast Pumps, No. and size

1 @ 10 1/2" x 12 1/2" x 21"

Lubricating Oil Pumps, including Spare Pump, No. and size

None

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

3 @ 2 1/2" Tunnel Well 1 @ 2 1/4"

In Holds, &c.

No 1, 2 @ 2 3/4", No 2, 2 @ 3 1/2", No 3, 2 @ 3", No 4, 2 @ 2 3/4"

Main Water Circulating Pump Direct Bilge Suctions, No. and size

1 @ 8"

Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size

1 @ 4 1/2"

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

None

How are they protected

-

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

Yes

Is the Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

L.H.R.

MAIN BOILERS, &c.—(Letter for record)

(7)

Total Heating Surface of Boilers

2 main 5764 sq. ft.

1 aux 1787 sq. ft.

Total 7551 sq. ft.

Is Forced Draft fitted

No

No. and Description of Boilers

one aux

Muth S.E. Working Pressure

180 lbs

2 S.B. + 1 A.B.

IS A REPORT ON MAIN BOILERS NOW FORWARDED?

Yes

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

-

PLANS.

Are approved plans forwarded herewith for Shafting

Yes

Main Boilers

Yes

Auxiliary Boilers

Yes

Donkey Boilers

-

Superheaters

-

General Pumping Arrangements

Yes

Oil fuel Burning Piping Arrangements

-

SPARE GEAR.

State the articles supplied:—

2 connecting rods top end & two connecting rods bottom end. 6 bolts & nuts. 2 main bearing bolts. 1 set coupling bolts. 1 set of feed & bilge pump valves. a quantity of assorted bolts & nuts. 1 set of various sizes. 10 condenser tubes. 6 boiler tubes. 1 main & 1 aux feed & check valve. 3 pump valves. 1 set air pump valves. 1 do bilge pump valves. 1 set air pump valves. 1 do bilge pump valves.

The foregoing is a correct description,

FOR GEORGE CLARK LIMITED

W. G. M. M.

Manufacturer.



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Lloyd's Register
Foundation

1930. Jan. 14, 30 Feb. 24. Mch. 4, 5, 7, 12, 19, 24, 25, 27, 31. Apl. 1, 2, 3, 4, 7, 8, 9, 11, 15, 16, 23, 24, 25, 29.
 May. 1, 2, 5, 6, 7, 12, 14, 17, 19, 20, 22, 23, 24, 27, 28. June. 3, 5.

Dates of Survey while building

During progress of work in shops - -

During erection on board vessel - - -

Total No. of visits 43

Dates of Examination of principal parts—Cylinders 3/4/30 Slides 7/3/30 Covers 27/3/30
 Pistons 19/3/30 Piston Rods 25/3/30 Connecting rods 4/3/30
 Crank shaft 25/3/30 Thrust shaft 24/3/30 Intermediate shafts 23/4/30
 Tube shaft - Screw shaft 23/4/30 Propeller 11/4/30
 Stern tube 24/4/30 Engine and boiler seatings 12/5/30 Engines holding down bolts 24/5/30
 Completion of fitting sea connections 25/4/30
 Completion of pumping arrangements 28/5/20 Boilers fixed 23/5/30 Engines tried under steam 27/5/30
 Main boiler safety valves adjusted 27/5/30 Thickness of adjusting washers PORT 5 1/2 CENTRE 5 1/2 STARBOARD 5 1/2
 Crank shaft material I. STEEL Identification Mark 124 Thrust shaft material I. STEEL Identification Mark 198
 Intermediate shafts, material I. STEEL Identification Marks 1576, 228, 1558 Tube shaft material - Identification Mark -
 Screw shaft, material I. STEEL Identification Mark 1559 W 1567, 1577, 121. Steam Pipes, material L.W. STEEL Test pressure 540 Date of Test 17/5/30
 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 & boilers of this vessel have been built under special survey & the materials & workmanship are good. On completion the machinery was tried under a full head of steam and found satisfactory. The machinery throughout is now in a good & efficient condition & eligible in my opinion to have the notation L.M.C. 6-30 & T.B.C.L marked in the Society's Register Book.

It is submitted that this vessel is eligible for the notation L.M.C. 6-30 cl.

W. H. 6/6/30

The amount of Entry Fee ... £ 5-0-0 When applied for, 30 May 1930
 Special ... £ 87-11-0
 Donkey Boiler Fee ... £ : : When received, 6. 6. 30
 Travelling Expenses (if any) £ : : 1930

Charlotte
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 6 JUN 1930

Assigned

+ L.M.C. 6. 30 C.L.

CERTIFICATE WRITTEN



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