

REPORT ON MACHINERY

No. 31811
SAT. MAY. 18 1920

Received at London Office

Date of writing Report

19

When handed in at Local Office

17/4 1920 Port of

Hull.

No. in Survey held at
Reg. Book.

Date, First Survey

14.8.19

Last Survey

14/4/1920

(Number of Visits

41)

282

on the

S. T. ASAMA.

Master

Built at

Peverley

By whom built

John Wether & Gummells

When built

1920

Engines made at

Hull

By whom made

Thos & Holmes & Co. Ltd. (Ltd. 1902)

when made

1920

Boilers made at

By whom made

Do

when made

1920

Registered Horse Power

Owners

Mack & West

Port belonging to

Bendy

Nom. Horse Power as per Section 28

85

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

12½ - 21 - 35

Length of Stroke

26

Revs. per minute

114

Dia. of Screw shaft

as per rule

7½

Material of

screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Yes

Is the after end of the liner made water tight

In the propeller boss

Yes

If the liner is in more than one length are the joints burned

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

No

If two

liners are fitted, is the shaft lapped or protected between the liners

Yes

Length of stern bush

35½

Dia. of Tunnel shaft

as per rule

6.57

Dia. of Crank shaft journals

as per rule

6.89

Dia. of Crank pin

7½

Size of Crank webs

48x10

Dia. of thrust shaft under

collars

No. of Feed pumps

One

Diameter of ditto

2½

Stroke

14½

Can one be overhauled while the other is at work

No

No. of Bilge pumps

One

Diameter of ditto

2½

Stroke

14½

Can one be overhauled while the other is at work

No

No. of Donkey Engines

One

Sizes of Pumps

6x3½x6

Flywheel

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

2 @ 2" dia.

In Holds, &c.

One 2" to each compartment

No. of Bilge Injections

One

sizes

3½

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

2½

quantity

Are all the bilge suction pipes fitted with roses

Yes

Are all connections with the sea direct on the skin of the ship

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

Yes

Are they 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 Discharge Pipes 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 are carried through the bunkers

Submarine & water pipes

How are they protected

Hanging casing

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Yes

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

No

worked from

No

OILERS, &c.—(Letter for record

S.)

Manufacturers of Steel

Messrs. Spencer & Tinsley

I.S.B.

Total Heating Surface of Boilers

1530

Is Forced Draft fitted

No

No. and Description of Boilers

One cyl. with scull.

Working Pressure

180

Tested by hydraulic pressure to

380 lbs.

Date of test

26/2/20

No. of Certificate

3419

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

50½

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

4.9

Pressure to which they are adjusted

185

Smallest distance between boilers or uptakes and bunkers or woodwork

8"

Mean dia. of boilers

162"

Length

10-6"

Material of shell plates

Steel

Thickness

1½"

Range of tensile strength

28 to 32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

double

Long. seams

TR. JBS

Diameter of rivet holes in long. seams

1½"

Pitch of rivets

7½"

Gap of plates or width of butt straps

16½"

Percentage of strength of longitudinal joint

rivets

88.7%

Working pressure of shell by rules

184 lbs.

Size of manhole in shell

16x12"

Size of compensating ring

7x18"

No. and Description of Furnaces in each boiler

3 Plain

Material

Steel

Outside diameter

42"

Length of plain part

top

31"

Thickness of plates

crown

3½"

Description of longitudinal joint

welded

No. of strengthening rings

as fit

Working pressure of furnace by the rules

187

Combustion chamber plates: Material

Steel

Thickness: Sides

23"

Back

23"

Top

23"

Pitch of stays to ditto: Sides

9x10"

Back

10x8"

Top

10x8"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

191 lbs.

Material of stays

Steel

Area at smallest part

2.07

Area supported by each stay

90"

Working pressure by rules

207

End plates in steam space:

Material of stays

Steel

Area at smallest part

7.5"

Area supported by each stay

306"

Working pressure by rules

255

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

7/8"

Thickness

7/8"

Greatest pitch of stays

14x8½"

Working pressure of plate by rules

197

Diameter of tubes

3½"

Pitch of tubes

5x4½"

Pitch across wide water spaces

13½"

Working pressures by rules

226 lbs.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10x8½"

Length as per rule

34.15"

Distance apart

14x10½"

Number and pitch of stays in each

3 @ 8"

Working pressure by rules

180 lbs.

Steam dome: description of joint to shell

No

% of strength of joint

No

Diameter

No

Thickness of shell plates

No

Material

No

Description of longitudinal joint

No

Diam. of rivet holes

No

Pitch of rivets

No

Working pressure of shell by rules

No

Crown plates

No

Thickness

No

How stayed

No

SUPERHEATER. Type

No

Date of Approval of Plan

No

Tested by Hydraulic Pressure to

No

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

No

Is Easing Gear fitted

No

Diameter of Safety Valve

No

Pressure to which each is adjusted

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:-

Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set coupling bolts & nuts, one set air feed & bilge pump valves, one main & one donkey check valve & seat, two donkey pump valves, 6 pump ring studs & nuts, one safety valve spring, a quantity of bolts & nuts of various sizes.

The foregoing is a correct description,

FOR CHARLES D. HOLMES & CO. LTD.

Manufacturer.

Dates of Survey while building
During progress of work in shops - - 1919 Aug. 14. 15. 16. Sep. 3. 4. 8. 11. 17. 23. 25. Oct. 6. 21. 29. Nov. 9. 17. 21. 24.
During erection on board vessel - - 26. 27. 28. Dec. 2. 5. 6. 10. 15. 29. 1920 Jan. 6. 8. 9. 27. Feb. 4. 10. 20. Mar. 2.
Total No. of visits 41.

Is the approved plan of main boiler forwarded herewith

Yes.

Dates of Examination of principal parts—Cylinders 2/12/19 Slides 5/2/20 Covers 5/2/20 Pistons 5/2/20 Rods 9/1/20
Connecting rods 9/1/20 Crank shaft 26/1/19 Thrust shaft 6/1/20 Tunnel shafts - Screw shaft 4/9/19 Propeller 15/8/19
Stern tube 15/8/19 Steam pipes tested 18/3/20 Engine and boiler seatings 19/3/20 Engines holding down bolts 19/3/20
Completion of pumping arrangements 14/4/20 Boilers fixed 25/3/20 Engines tried under steam 14/4/20
Completion of fitting sea connections 23/9/19 Stern tube 11/9/19 Screw shaft and propeller 23/9/19
Main boiler safety valves adjusted 25/3/20 Thickness of adjusting washers $F\frac{1}{2}$ "A" $\frac{3}{4}$ "
Material of Crank shaft Iron Identification Mark on Do. 2403 Material of Thrust shaft Iron Identification Mark on Do. 2402
Material of Tunnel shafts - Identification Marks on Do. - Material of Screw shafts Iron Identification Marks on Do. 2376
Material of Steam Pipes Copper Test pressure 400 lbs.
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 Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel S.T. HATSUSE (Holmes 1200)

General Remarks

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

The engines & boiler of this vessel have been built under special survey & the materials & workmanship are good.

On completion the machinery was tried under full working conditions while moored to the Quay Wall with satisfactory results.

The machinery of this vessel is now in a good & efficient condition & eligible in my opinion to have the record L.M.C. 4-20 marked in Red in the British Register Book.

It is submitted that this vessel is eligible for

THE RECORD + L.M.C. 4-20

The amount of Entry Fee ... £ 1-0-0
Special ... £ 12-15-0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :

When applied for, 7/5/20

When received, 1/6/20

TUE. MAY. 11 1920

Committee's Minute

Assigned

+ L.M.C. 4, 20

CERTIFICATE WRITTEN



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