

REPORT ON MACHINERY.

No. 28430

Date of writing Report

19

When handed in at Local Office

-2 OCT 1922

Port of

SUNDERLAND

Received at London Office 30 OCT. 1922

No. in Survey held at

SUNDERLAND

Date, First Survey

3rd Nov '19

Last Survey

26th Sep 1922

Reg. Book.

80571 Supp.

on the *Miss Hansen* No 55 No 5 % *PUNNELSTONE*

(Number of Visits)

57 + 9

Gross

872

Net

442

Master

Built at *Bideford*By whom built *Hansen & Co*

When built 1922

Engines made at *Sunderland*By whom made *Miss MacCall & Phipps (314)*

when made 1922

Boilers made at *Sunderland*By whom made *Miss MacCall & Phipps (314 + 322)*

when made 1922

Registered Horse Power

Owners *Hansen Shipping Co Ltd*Port belonging to *London*

Nom. Horse Power as per Section 28

125

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engines

Triple

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

16, 27, 44

Length of Stroke

30

Revs. per minute

85

Dia. of Screw shaft

as per rule 9.188

Material of

steel

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

Bideford

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

Yes

If two

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

Length of stern bush

3'-2"

Dia. of Tunnel shaft

as per rule none

Dia. of Crank shaft journals

as per rule 8.46

Dia. of Crank pin

8 3/4

Size of Crank webs

12 1/2 x 5 1/2

Dia. of thrust shaft under

collars

8 3/4

Dia. of screw

11-6

Pitch of Screw

13-6

No. of Blades

4

State whether moveable

No

Total surface

44 5/8

No. of Feed pumps

2

Diameter of ditto

2 1/2

Stroke

16

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2

Stroke

16

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

6 x 4 x 6, 6 1/2 x 5 1/2 x 8

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

In Engine Room

2-2 1/2

Stroke 1-2 1/2

In Holds, &c.

No 1

Holds 2-2 1/2

No 2

Holds 2-2 1/2

No. of Bilge Injections

1

sizes

4 1/2

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes 2 1/2

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

None

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

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

1 Hot suction

How are they protected

Hot 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

Yes

worked from

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

John Spencer & Sons

Total Heating Surface of Boilers

2070 5/8

Is Forced Draft fitted

No

Working Pressure

150 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

13.8.20, 18.9.22

No. of Certificate

3707, 3812

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

32 5/8

No. and Description of Safety Valves to

each boiler

2 Spring valves

Area of each valve

3.98

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

4'-0"

Ex. No 314

Mean dia. of boiler

11-0

Length

10-6

Material of shell plates

S

Thickness

21/32

Range of tensile strength

28-32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

lap all

long. seams

all butt

Diameter of rivet holes in long. seams

1 1/32

Pitch of rivets

7 7/16

Lap of plates or width of butt straps

15 1/4

Per centages of strength of longitudinal joint

rivets 95.6

plate 85.6

Working pressure of shell by rules

181

Size of manhole in shell

12 x 16

Size of compensating ring

28 x 26 x 21/32

No. and Description of Furnaces in each boiler

2 Plain

Material

S

Outside diameter

38 1/2"

Length of plain part

top 6-4

Thickness of plates

crown 2 1/32

Description of longitudinal joint

welded

No. of strengthening rings

Working pressure of furnace by the rules

181

Combustion chamber plates: Material

S

Thickness: Sides

5/8

Back

21/32

Top

21/32

Bottom

7/8

Pitch of stays to ditto: Sides

8 3/4 x 8 1/2

Back

8 3/4 x 9 1/2

Top

8 1/2 x 9

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

181

Material of stays

S

Area at smallest part

1.73

Area supported by each stay

74

Working pressure by rules

186

End plates in steam space:

Material

S

Thickness

31/32

Pitch of stays

15 x 15

How are stays secured

d. n. r. w.

Working pressure by rules

183

Material of stays

S

Area at smallest part

4-1

Area supported by each stay

225

Working pressure by rules

187

Material of Front plates at bottom

S

Thickness

15/16

Material of Lower back plate

S

Thickness

25/32

Greatest pitch of stays

12 1/2

Working pressure of plate by rules

180

Diameter of tubes

3 1/4

Pitch of tubes

4 1/2 x 4 1/2

Material of tube plates

S

Thickness: Front

15/16

Back

51/64

Mean pitch of stays

8 1/2 x 13 1/2

Pitch across wide water spaces

13 1/2

Working pressures by rules

185

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

7 x 1 1/8

Length as per rule

28

Distance apart

9

Number and pitch of stays in each

2, 8 1/2

Working pressure by rules

190

Steam dome: description of joint to shell

Yes

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

UPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

002602-002610-0246

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:-

Two top end & two bottom end bolts
two main bearing bolts & nuts, one set of coupling bolts & nuts
one set of feed & large pump valves, assorted bolts & nuts etc.

The foregoing is a correct description,

MAGGILL & POLLOCK, LTD.

E. B. Pollock

Manufacturer.

Dates of Survey while building
During progress of work in shops - - - 1919 Nov. 3. 19 Dec. 18. 20 Jan. 29. Feb. 25. Mar. 26. Apr. 14. 17. 29 May 14. 21. June 8. 21. 29
During erection on board vessel - - - July 13. 28 Aug. 11. 12. 13. 20 Sep. 1. 16 Oct. 1921 Nov. 18. 24. 29 Dec. 2. 27 July 26. 31 Aug. 14. 16. 23
Total No. of visits 37
Is the approved plan of main boiler forwarded herewith YES
" " " donkey " " " NO

Dates of Examination of principal parts—Cylinders 29. 11. 20 Slides 23. 8. 22 Covers 2. 12. 20 Pistons 6. 10. 20 Rods 31. 5. 20
Connecting rods 31. 5. 20 Crank shaft 29. 6. 20 Thrust shaft 25. 7. 20 Tunnel shafts NONE Screw shaft 21. 10. 20 Propeller 4. 9. 22
Stern tube 23. 8. 22 Steam pipes tested 4. 12. 22 Engine and boiler seatings 20. 11. 22 Engines holding down bolts 20. 11. 22
Completion of pumping arrangements 7. 1. 23 Boilers fixed 20. 11. 22 Engines tried under steam 7. 1. 23
Completion of fitting sea connections 20. 11. 22 Stern tube 6. 11. 22 Screw shaft and propeller 6. 11. 22
Main boiler safety valves adjusted 7. 1. 23 Thickness of adjusting washers $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$ $\frac{5}{16}$
Material of Crank shaft steel Identification Mark on Do. 3226 M.R. Material of Thrust shaft steel Identification Mark on Do. 5686 C.K.
Material of Tunnel shafts none Identification Marks on Do. ✓ Material of Screw shafts steel Identification Marks on Do. 5686 C.K.
Material of Steam Pipes Solid drawn copper ✓ Test pressure 360 lbs ✓
Is an installation fitted for burning oil fuel ✓ 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 No If so, state name of vessel ✓

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

The Machinery of this vessel has been constructed under special survey, the materials and workmanship are sound and good and when fitted on board the vessel in a satisfactory manner with under her eligibility in my opinion to have used of T. L.M.C. with date

The machinery has been forwarded to Appledore, Sidford for fitting on board

The boiler & machinery have now been fitted and secured on board, tried under working conditions & safety valves adjusted. They are now eligible in my opinion for record of T. L.M.C. 1-23

It is submitted that this vessel is eligible for THE RECORD. + LMC 1.23. CL.

18/1/23

W. H. H. + John W. Gayme
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 :

Special ... £ 25 :

Donkey Boiler Fee ... £ 6 : 5

Travelling Expenses (if any) £ 9 : 0

Committee's Minute

Assigned

+ L.M.C. 1.23. C.L.

CERTIFICATE WRITTEN



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