

REPORT ON MACHINERY.

No. 22809

Port of

Sunderland

Received at London Office

TUES. 5 JUN 1906

No. in Survey held at

Sunderland

Date, first Survey 15 December 05 Last Survey 28 May 1906

Reg. Book.

on the

S. S. "Times"

(Number of Visits 61)

Master D. Iversen

Built at Sunderland

By whom built Messrs J. Priestman & Co.

Gross 2112.96

Net 1338.42

When built 1906

Engines made at

Sunderland

By whom made

Messrs J. Dickinson & Sons

when made

1906

Boilers made at

Sunderland

By whom made

Messrs J. Dickinson & Sons

when made

1906

Registered Horse Power

Owners W. Wilhelmsen

Port belonging to

Tonsberg

Nom. Horse Power as per Section 28

256

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Inverted triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

22½, 37, 61

Length of Stroke

39

Revs. per minute

70

Dia. of Screw shaft

as per rule 12.66

Material of

Iron

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

No

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

Length of stern bush

4' 3"

Dia. of Tunnel shaft

as per rule 11.56

Dia. of Crank shaft journals

as per rule 11.56

Dia. of Crank pin

12

Size of Crank webs

2¼ x 7¼

Dia. of thrust shaft under

collars

11½

Dia. of screw

No. of Feed pumps

2

Diameter of ditto

3¼

Stroke

19½

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4¼

Stroke

19½

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

5¼ x 3½ x 5" and 7¼ x 9 x 10" Ballast

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

In Engine Room

3 of 3"

In Holds, &c.

2 of 3½" in hold + 1 of 2½"

No. of Bilge Injections

1

sizes

4"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

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

Yes

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

nil

How are they protected

Yes

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

Dates of examination of completion of fitting of Sea Connections

20/4/06

of Stern Tube

20/4/06

Screw shaft and Propeller

17/5/06

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

top platform

BOILERS, &c.—(Letter for record

5)

Manufacturers of Steel

J. Spencer & Sons

Total Heating Surface of Boilers

3984

Is Forced Draft fitted

no

No. and Description of Boilers

2 single ended, cylindrical

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

30.3.06

No. of Certificate

2477

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

56

No. and Description of Safety Valves to

each boiler

2 spring

Area of each valve

7.07

Smallest distance between boilers or uptakes and bunkers or woodwork

22"

Mean dia. of boilers

14' 3½"

Length

10' 6"

Material of shell plates

steel

Thickness

1½"

Range of tensile strength

20/32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

d. r. lap.

long. seams

d. r. double

Diameter of rivet holes in long. seams

1½"

Pitch of rivets

8¾"

Lap of plates or width of butt straps

19½"

Per centages of strength of longitudinal joint

rivets 96.6

plate 85

Working pressure of shell by rules

183.3 lbs

Size of manhole in shell

16 x 12"

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3-plain

Material

steel

Outside diameter

42"

Length of plain part

top 6' 13½"

Thickness of plates

crown 49/64

Description of longitudinal joint

weld

No. of strengthening rings

Yes

Working pressure of furnace by the rules

180 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

¼"

Back

¾"

Top

¼"

Bottom

Pitch of stays to ditto: Sides

10 x 9"

Back

11 x 9½"

Top

9 x 9½"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182 lbs

Material of stays

steel

Diameter at smallest part

2.03

Area supported by each stay

105.575

Working pressure by rules

184 lbs

End plates in steam space:

Iron

Material

steel

Thickness

1½"

Pitch of stays

22½ x 18½"

How are stays secured

d. n. & washer

Working pressure by rules

184 lbs

Material of Front plates at bottom

steel

Thickness

¾"

Greatest pitch of stays

13½ x 9½"

Working pressure of plate by rules

184 lbs

Diameter of tubes

3½"

Pitch of tubes

4½ x 4½"

Material of tube plates

steel

Thickness: Front

7/8"

Back

7/8"

Pitch across wide water spaces

13½"

Working pressures by rules

289 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

6¾ x 2¾"

Length as per rule

Working pressure by rules

184 lbs

Superheater or Steam chest; how connected to boiler

Yes

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

How stayed

Working pressure by rules

End plates: Thickness

How stayed

Working pressure by rules

End plates: Thickness

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

How stayed

Working pressure by rules

End plates: Thickness

How stayed

Working pressure by rules

End plates: Thickness

W1106 - 0110

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of Safety

Valves No. of Safety Valves Area of each Pressure to which they are adjusted Date of adjustment

If fitted with easing gear If steam from main boilers can enter the donkey boiler Dia. of donkey boiler Length

Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams Rivets

Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Plates

Working pressure of shell by rules Thickness of shell crown plates Radius of do. No. of stays to do. Dia. of stays

Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint

Working pressure of furnace by rules Thickness of furnace crown plates Stayed by

Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— 2 top end bolts, 2 bottom end bolts, 2 Main bearing bolts
1 set coupling bolts, 1 Propeller, 1 Propeller shaft, 1 set feed and bilge pump Valves
1 set Air pump Valves, 1 set piston springs for En. P. & H. P pistons, Bolts & nuts assorted
and iron of sizes

The foregoing is a correct description,
JOHN DICKINSON & SONS, Limited
Manufacturer.

Dates of Survey while building

During progress of work in shops— 1905: Decr. 15, 19, 23, 26, 29, 30, 31, 1906: Jan. 9, 10, 16, 19, 22, 25, 28, 29, 30, Feb. 1, 2, 5, 7, 8, 10, 12, 13, 15, 16, 19, 20, 22, 24, 27, 28, Mch. 2, 5, 6, 7, 8, 12, 13, 16, 19, 20, 21, 22, 23, 26, 29, 30, Apl. 2, 6, 9, 11, 12, 20, 21, 28, 30

During erection on board vessel — 19, 20, 22, 24, 27, 28, Mch. 2, 5, 6, 7, 8, 12, 13, 16, 19, 20, 21, 22, 23, 26, 29, 30, Apl. 2, 6, 9, 11, 12, 20, 21, 28, 30

Total No. of visits 61 May 11, 15, 16, 17, 18, 25, 28, Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 30/3/06 Slides 23/4/06 Covers 20/4/06 Pistons 23/4/06 Rods 2/4/06
Connecting rods 2/4/06 Crank shaft 20/4/06 Thrust shaft 6/3/06 Tunnel shafts 30/2/06 Screw shaft 30/4/06 Propeller 23/4/06
Stern tube 20/4/06 Steam pipes tested 15 & 16 May 1906 Engine and boiler seatings 20/4/06 Engines holding down bolts 17/5/06
Completion of pumping arrangements 17/5/06 Boilers fixed 17/5/06 Engines tried under steam 10/5/06
Main boiler safety valves adjusted 10/5/06 Thickness of adjusting washers P.B. F.V. 5/16, A.V. 3/32, S.B. F.V. 3/8, A.V. 1/32
Material of Crank shaft Steel Identification Mark on Do. 305B, R.W.C. Material of Thrust shaft Steel Identification Mark on Do. 1689, A.H.
Material of Tunnel shafts Steel Identification Marks on Do. 1689, 1713, 1714 Material of Screw shafts Iron Identification Marks on Do. 309B, R.W.C.
Material of Steam Pipes Copper Test pressure 400 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. The Machinery of this vessel has been constructed under special survey, the workmanship and materials used are both of good quality, the Engines have been tried under steam, and worked satisfactorily, the safety Valves have been adjusted under steam as above noted, and worked satisfactorily

I beg to recommend that this vessel is eligible in my opinion to have the record L.M.C. 5.06 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 5.06.

The amount of Entry Fee.. £ 2 : : When applied for, 2.6.1906
Special .. £ 32. 16 : :
Donkey Boiler Fee .. £ : : When received, 26.6.1906
Travelling Expenses (if any) £ : :
WED. 6 JUN 1906

R. N. Coomber.
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

MACHINERY CERTIFICATE WRITTEN.

Lloyd's Register Foundation