

REPORT ON MACHINERY.

No. 23589

Port of

Sunderland

Received at London Office

THUR. 23 JAN 1908

No. in Survey held at

Sunderland

Date, first Survey 1st July 1904 Last Survey 10th Jan 1908

Reg. Book.

on the Steel Screw Steamer JOHN MILES

(Number of Visits 24)

Gross 686.49

Net 341.45

Master C. W. Bell

Built at Sunderland

By whom built R. P. Austin & Son Ltd.

When built 1908

Engines made at

Sunderland

By whom made

N.E. Marine Eng'g Co. Ltd.

when made 1908

Boilers made at

Sunderland

By whom made

N.E. Marine Eng'g Co. Ltd.

when made 1908

Registered Horse Power

Owners Stephenson Clarke & Co.

Port belonging to London

Nom. Horse Power as per Section 28

113

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

ENGINES, &c.—Description of Engines

Triple Expansion (Fitted aft)

No. of Cylinders

Three

No. of Cranks

Three

Dia. of Cylinders

15 1/2 - 25 - 41

Length of Stroke

30

Revs. per minute

89

Dia. of Screw shaft

as per rule 9 1/8

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

Is the propeller boss

yes

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

—

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

5-1 1/2

Dia. of Tunnel shaft

as per rule 4.85

Dia. of Crank shaft journals

as per rule 8.25

Dia. of Crank pin

8 3/8

Size of Crank webs

5 1/8 x 12 3/4

Dia. of thrust shaft under

collars

Dia. of screw

11-9

Pitch of Screw

11-9

No. of Blades

four

State whether moveable

no

Total surface

45 sq

No. of Feed pumps

Two

Diameter of ditto

2 1/2

Stroke

15

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

Two

Diameter of ditto

2 1/2

Stroke

15

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

Two

Duplex

Sizes of Pumps

4x9x9 - 5x3x4 1/2

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

In Engine Room

One Centre 2 1/2 dia, one centre 2 - 1/2

In Holds, &c. Two 2 in pipes to forehold, Two 2 in pipes

No. of Bilge Injections

one size

3 1/2

Connected to condenser, or to circulating pump

—

Is a separate Donkey Suction fitted in Engine room & size

yes 2

Are all the bilge suction pipes fitted with roses

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

What pipes are carried through the bunkers

none

How are they protected

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

12/12

of Stern Tube

12/12

Screw shaft and Propeller

12/12

Is the Screw Shaft Tunnel watertight

no tunnel

Is it fitted with a watertight door

—

worked from

OILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Son Ltd, J. Deighton & Co. Ltd.

Total Heating Surface of Boilers

1914 sq

Is Forced Draft fitted

no

No. and Description of Boilers

One, Single Ended, Lys. 2 1/2 mult

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

13/12/04

No. of Certificate

2649

Can each boiler be worked separately

—

Area of fire grate in each boiler

51.5 sq

No. and Description of Safety Valves to

each boiler

Two, direct spring

Area of each valve

5.94 sq

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

15

(Rule Mean dia. of boilers 13-9 1/16)

Length

10-6

Material of shell plates

steel

Thickness

1 3/8

Range of tensile strength

28 3/4 to 32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

Yes 5R

Long. seams

5738-TR

Diameter of rivet holes in long. seams

1 1/16

Pitch of rivets

8 3/4

Lap of plates or width of butt straps

18

Per centages of strength of longitudinal joint

rivets 85.4

plate 86.5

Working pressure of shell by rules

180.2 lbs

Size of manhole in shell

16x12

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

Three plain

Material

steel

Outside diameter

38 3/4

Length of plain part

top 6-4 3/8

bottom —

Thickness of plates

crown 23

bottom 32

Description of longitudinal joint

weld

No. of strengthening rings

—

Working pressure of furnace by the rules

180 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

3/4

Back

3/4

Top

3/4

Bottom

13/16

Pitch of stays to ditto: Sides

8 1/2 x 11 3/4

Back

9 5/8 x 10 5/8

Top

11 1/8 x 8 1/2

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182 lbs

Material of stays

steel

Diameter at smallest part

1 1/8

Area supported by each stay

10 1/2 x 13 1/2

Working pressure by rules

180 lbs

End plates in steam space:

Material

steel

Thickness

1 3/8

Pitch of stays

24 3/8 x 20

How are stays secured

57 x 11

Working pressure by rules

180 lbs

Material of stays

steel

Diameter at smallest part

3.28

Area supported by each stay

4.88

Working pressure by rules

180.9 lbs

Material of Front plates at bottom

steel

Thickness

13/16

Material of Lower back plate

steel

Thickness

15/16

Greatest pitch of stays

14 3/4 x 10 5/8

Working pressure of plate by rules

181 lbs

Mean pitch of stays

10 1/8

Diameter of tubes

3 1/4

Pitch of tubes

4 1/2 x 4 1/2

Material of tube plates

steel

Thickness: Front

13/16

Back

13/16

Mean pitch of stays

10 1/8

Pitch across wide water spaces

14 1/2

Working pressures by rules

184.9 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

8 x 2

Length as per rule

29.43

Distance apart

11 1/4, 11 1/2

Working pressure by rules

185 lbs

Superheater or Steam chest; how connected to boiler

—

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

—

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 by rules

—

End plates: Thickness

—

How stayed

—

Working pressure of end plates

—

Area of safety valves to superheater

—

No.	Description		When made	Where fixed
Made at	By whom made			
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area
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	
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint
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	

The foregoing is a correct description,
NORTH EASTERN MARINE ENGINEERING CO. LTD.
Walter Peatly, Secy. Manufacturer.

Dates of Survey while building	{	During progress of work in shops - -	1907: - July, Sept. 24, Nov. 5, 11, 13, 18, 20, 21, 22, 25, 26, 27, 30, Dec. 3, 5, 7, 9, 11, 12, 13, 14, 19, 24, 28, 30.
		During erection on board vessel - -	1908: - Jan 6, 10.
		Total No. of visits	24.

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders $\frac{11}{11}$ $\frac{20}{11}$ $\frac{27}{11}$ Slides $\frac{19}{12}$ Covers $\frac{19}{12}$ Pistons $\frac{13}{12}$ $\frac{17}{12}$ Rods $\frac{17}{12}$
Connecting rods $\frac{14}{12}$ Crank shaft $\frac{13}{12}$ $\frac{17}{12}$ $\frac{19}{12}$ Thrust shaft $\frac{23}{11}$ $\frac{14}{12}$ Tunnel shafts *none* Screw shaft $\frac{21}{11}$ $\frac{22}{11}$ Propeller $\frac{26}{11}$
Stern tube $\frac{5}{12}$ $\frac{12}{12}$ Steam pipes tested $\frac{30}{12}$ Engine and boiler seatings $\frac{3}{12}$ Engines holding down bolts $\frac{28}{12}$
Completion of pumping arrangements $\frac{6}{11}$ Boilers fixed $\frac{24}{12}$ $\frac{28}{12}$ Engines tried under steam $\frac{6}{11}$
Main boiler safety valves adjusted $\frac{6}{11}$ Thickness of adjusting washers $\frac{1}{16}$ $\frac{1}{16}$ full.
Material of Crank shaft *steel* Identification Mark on Do. 509 D
AB Material of Thrust shaft *steel* Identification Mark on Do. 51
A
Material of Tunnel shafts *none* Identification Marks on Do. — Material of Screw shafts *iron* Identification Marks on Do. 51
A
Material of Steam Pipes *Copper solid drawn 4 1/2 inch No 6 Wg.* Test pressure *400 lbs.*

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

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The Machinery of this Vessel has been constructed under special survey, the Material & Workmanship sound & good, the Boiler & Steam pipe have been subjected to Hydraulic pressure as above, the Machinery worked satisfactorily at the pressure & the safety Valves have been adjusted under steam to their working pressure.

It is submitted that
this vessel is eligible for
THE RECORD. L. M. C. 1. 08

25-1-08

This Vessel is Eligible in my opinion to have the Notation
* LMC 1,08[✓] in the Register Book.

The amount of Entry Fee..	£	2 : 0 :	} When applied for, 22.1.1900
Special	£	16 : 19 :	
Donkey Boiler Fee	£	:	
Travelling Expenses (if any) £	:	:	When received, 31.1.1900

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute

TUES. 28 JAN 1908

Assigned

+ Lmb. 1.08.

MACHINERY CERTIFICATE
WRITTEN.

Lloyd's Register
Foundation