

Date of writing Report

19

When handed in at Local Office

Nov. 16th 1914

Port of

MIDDLESBRO'

No. in Survey held at

Stockton-on-Tees

Date, First Survey

June 17th 1914

Last Survey

November 12th 1914

Reg. Book.

on the

Steel Screw Steamer ~~BURFORD~~ BURESK (S.S. No 642)

(Number of Visits)

4

Gross

Net

When built

Master

Built at

Stockton

By whom built

Richardson & Co

Engines made at

Stockton

By whom made

Messrs Blair & Co Lim. (No 1801)

when made

1914

Boilers made at

Stockton

By whom made

Messrs Blair & Co Lim.

when made

1914

Registered Horse Power

Owners

Messrs Burdick & Co

Port belonging to

Nom. Horse Power as per Section 28

321

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Tri-compound

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

24-40-66

Length of Stroke

45

Revs. per minute

61

Dia. of Screw shaft

as per rule 13.76

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 in one

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

light fit

If two

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

yes

Length of stern bush

5'-3"

Dia. of Tunnel shaft

as per rule 12.13

as fitted 12.3

Dia. of Crank shaft journals

as per rule 12.73

as fitted 13.5

Dia. of Crank pin

13.5

Size of Crank webs

264 x 9

Dia. of thrust shaft under

collars

13.5

Dia. of screw

17'-0"

Pitch of Screw

16'-6"

No. of Blades

4

State whether moveable

no

Total surface

89 sq ft

No. of Feed pumps

2

Diameter of ditto

3

Stroke

33

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2

Stroke

33

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps Ballant 9x10; 7x8 4x8

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

In Engine Room

3 @ 3 1/2 + dry tank one @ 3 1/2

In Holds, &c. 2 @ 3 1/2 in each hold except aftermost

No. of Bilge Injections

1

sizes

6 1/2

Connected to condenser or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

yes 4"

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

no

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

Suctions to fore holds

How are they protected

wood ceiling

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

7.9.14

of Stern Tube

27.8.14

Screw shaft and Propeller

1.10.14

Is the Screw Shaft Tunnel watertight

see hull pl

Is it fitted with a watertight door

yes

worked from

top platform

BOILERS, &c.—(Letter for record (S))

Manufacturers of Steel

Messrs John Spencer & Co Lim.

Total Heating Surface of Boilers

4985

Is Forced Draft fitted

no

No. and Description of Boilers

2 single ended

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

30.9.14

No. of Certificate

5393

Can each boiler be worked separately

yes

Area of fire grate in each boiler

63.4 sq ft

No. and Description of Safety Valves to

each boiler

2 direct spring

Area of each valve

8.29

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers on woodwork

2'-6"

Mean dia. of boilers

16'-0"

Length

11'-0"

Material of shell plates

steel

Thickness

1 3/4

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

2 R. lap

long. seams

2 B-3 Riv

Diameter of rivet holes in long. seams

1 1/8

Pitch of rivets

8 1/4

Top of plates on width of butt straps

19 3/8 x 1 1/8

Per centages of strength of longitudinal joint

rivets 82.7

plate 85.02

Working pressure of shell by rules

183

Size of manhole in shell

16" x 12"

Size of compensating ring

7 1/2 x 1 3/4

No. and Description of Furnaces in each boiler

3 Fox's

Material

steel

Outside diameter

48

Length of plain part

top

bottom

Thickness of plates

crown

bottom

1 1/2

Description of longitudinal joint

welded

No. of strengthening rings

yes

Working pressure of furnace by the rules

196

Combustion chamber plates: Material

steel

Thickness: Sides

2 3/32

Back

4/32

Top

3/32

Bottom

2 3/32

Pitch of stays to ditto: Sides

8 3/4 x 10 1/2

Back

9 1/2 x 8 3/4

Top

10 1/2 x 7 1/4

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182

Material of stays

steel

Diameter at smallest part

1.99

Area supported by each stay

27.12

Working pressure by rules

184

End plates in steam space:

Material

steel

Thickness

1 1/8

Pitch of stays

21 x 19

How are stays secured

nuts & washers

Working pressure by rules

183

Material of stays

steel

Diameter at smallest part

7.84

Area supported by each stay

430

Working pressure by rules

189

Material of Front plates at bottom

steel

Thickness

1"

Material of Lower back plate

steel

Thickness

1 1/2

Greatest pitch of stays

15 1/2

Working pressure of plate by rules

236

Mean pitch of stays

11 3/4

Diameter of tubes

3 1/2

Pitch of tubes

4 3/4 x 4 3/4

Material of tube plates

steel

Thickness: Front

1 1/2

Back

1 1/8

Mean pitch of stays

11 3/4

Pitch across wide water spaces

14 1/2"

Working pressures by rules

182

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

7 3/4 x 1 1/8

Length as per rule

30"

Distance apart

10 1/2"

Number and pitch of stays in each

2 @ 9 1/4"

Working pressure by rules

185

Superheater or Steam chest; how connected to boiler

none

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

VERTICAL DONKEY BOILER— ~~Manufacture of Steel~~ See Middlesbrough Report- No 8636

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				
Dia. of rivet holes	Whether punched or drilled			Pitch of rivets		Lap of plating		Per centage of strength of joint		
<div style="display: flex; justify-content: space-between;"> Rivets Plates </div>										
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:— Two each of con-rod top and bottom end bolts and nuts; one set of coupling bolts and nuts; one set of feed and bridge pump valves, assorted bolts and nuts; iron of various sizes; spare propeller H.P. transbottom piston rings

The foregoing is a correct description,
For BLAIR & CO., LIMITED.
Geo. Stettin Manufacturer.

SECRETARY. 9/14 Jun 7. 18. 22. 26. 29. Jul. 1. 3. 10. 13. 15. 17. 20. 24. 27. 29. 30 Aug. 4. 6. 7. 11. 14. 24. 26. 27. 28. 31.
 Dates { During progress of work in shops - -
 of Survey { During erection on board vessel - -
 while building { Total No. of visits 48.
 Is the approved plan of main boiler forwarded herewith yes ✓

Dates of Examination of principal parts—Cylinders 14.8.14 Slides 28.8.14 Covers 14.8.14 Pistons 14.8.14 Rods 14.8.14
Connecting rods 10.7.14 Crank shaft 31.8.14 Thrust shaft 29.7.14 Tunnel shafts 29.7.14 Screw shaft 8.9.14 Propeller 8.9.14
Stern tube 24.8.14 Steam pipes tested 7.10.14 Engine and boiler seatings 7.9.14 Engines holding down bolts 6.10.14
Completion of pumping arrangements 14.10.14 Boilers fixed 14.10.14 Engines tried under steam 14.10.14
Main boiler safety valves adjusted 14.10.14 Thickness of adjusting washers P Boiler $s = \frac{1}{2} B$: S. Blk $s = \frac{5}{16} f$
Material of Crank shaft Ing steel Identification Mark on Do. 6921 Material of Thrust shaft Ing steel Identification Mark on Do. 511-N
Material of Tunnel shafts Ing steel Identification Marks on Do. 511-N Material of Screw shafts iron Identification Marks on Do. 6921
Material of Steam Pipes Solid drawn copper ($6\frac{1}{2} \times \frac{5}{8}$ & $5 \times \frac{1}{2}$) Test pressure 400 lbs.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey. The materials and workmanship are sound and good. The boilers and main steam pipes were tested by hydraulic pressure and the engines and boilers examined under steam and all found satisfactory. The machinery of this vessel is now in a good and safe-working condition and eligible in our opinion to have the notation of ∇ LMC 11-14 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 11.14

The amount of Entry Fee..	£	3 - 0 - 0	When applied for,
Special	£	36 - 1 - 0	16-11-1914
Donkey Boiler Fee ..	£	✓ :	When received,
Travelling Expenses (if any) £	£	✓ :	187/11/4 1914

Wm Morrison, & Thomas Miller
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute FRI NOV 20 1914

Assigned

MACHINERY CERTIFICATE
WRITTEN.



© 2021

Lloyd's Register
Foundation