

Rpt. 4.

## REPORT ON MACHINERY.

No. 25627

Date of writing Report 13-9-12, 19

When handed in at Local Office

13-9-12 Port of Hull

Received at London Office

FRI. NOV. 15. 1912

No. in Survey held at

Hull

Date, First Survey Nov 6/11

Last Survey 12-9-12 19

Reg. Book.

5000 on the steel screw steamer Bosun (6340)

(Number of Visits 45)

Master

Built at Bachelode

By whom built Van Damme, Tunn &amp; Adam

Tons { Gross 273

Net 129

When built 1912-9

Engines made at

Hull

By whom made

Charles C. &amp; L. &amp; Co. 154

when made 1912-9

Boilers made at

Hull

By whom made

Charles C. &amp; L. &amp; Co. 154

when made 1912-9

Indicated Horse Power

Owners Kees's Steamship &amp; Lightship Co.

Port belonging to London

Horse Power as per Section 28 43

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted no

INES, &amp; Co.—Description of Engines

Compound Surface Condensing

No. of Cylinders Two

No. of Cranks Two

of Cylinders 15" x 30"

Length of Stroke 18"

Revs. per minute 134

Dia. of Screw shaft

as per rule 6.66"

Material of

Steel

Screw shaft fitted with a continuous liner the whole length of the stern tube no liners

Is the after end of the liner made water tight

propeller boss

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

If the liner does not fit tightly at the part

In the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

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

Length of stern bush 27"

Tunnel shaft

as per rule 5.77"

Dia. of Crank shaft journals

as per rule 6.05"

Dia. of Crank pin 6 1/4"

Size of Crank webs 12" x 4 1/2"

Dia. of thrust shaft under

6 1/4"

Dia. of screw 7-6"

Pitch of Screw 8-6"

No. of Blades 3

State whether moveable no

Total surface 24 sq ft

Feed pumps one

Diameter of ditto 2 1/2"

Stroke 7 1/2"

Can one be overhauled while the other is at work

Bilge pumps one

Diameter of ditto 2 1/2"

Stroke 7 1/2"

Can one be overhauled while the other is at work

Donkey Engines one duplex

Sizes of Pumps 5 1/4" x 8 1/2" x 5"

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

In Holds, &amp;c. one 2" dia. one 2" x 1 1/2"

Bilge Room Two 2" dia.

Bilge Injections one sizes 3"

Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine room &amp; size 7/8"

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

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

pipes are carried through the bunkers none

How are they protected

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

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

of examination of completion of fitting of Sea Connections 2-9-12

of Stern Tube 2-9-12

Screw shaft and Propeller 2-9-12

Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

ERS, &amp; Co.—(Letter for record S)

Manufacturers of Steel

Steel Co. of Scotland

Heating Surface of Boilers 810 sq ft

Is Forced Draft fitted no

No. and Description of Boilers one single ended

Working Pressure 130 lbs

Tested by hydraulic pressure to 260 lbs

Date of test 21-2-12

No. of Certificate 1879

Can each boiler be worked separately

Area of fire grate in each boiler 34.5 sq ft

No. and Description of Safety Valves to

Boiler two spring loaded

Area of each valve 4.9 sq in

Pressure to which they are adjusted 135 lbs

Are they fitted with easing gear yes

Minimum distance between boilers or uptakes and bunkers on woodwork 5 1/2"

Mean dia. of boilers 120"

Length 9-6 3/4"

Material of shell plates steel

Range of tensile strength 28-32

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams double

seams D.R.D.B.

Diameter of rivet holes in long. seams 1 1/16"

Pitch of rivets 5-3/8"

Lap of plates or width of butt straps 10"

Stages of strength of longitudinal joint

rivets 83.4

plate 82.5

Working pressure of shell by rules 136 lbs

Size of manhole in shell 15" x 19"

Compensating ring 8 1/2" x 7 1/2"

No. and Description of Furnaces in each boiler two plain

Material steel

Outside diameter 36"

of plain part

top 10 1/2"

Thickness of plates

bottom 7 1/16"

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 132

Combustion chamber plates: Material steel

Thickness: Sides 1 1/16"

Back 9/8"

Top 9/16"

Bottom 1 1/16"

of stays to ditto: Sides 10 1/4" x 6 3/4"

Back 9 3/4" x 9 3/4"

Top 11" x 6 3/4"

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 132

Diameter at smallest part 1 1/2"

Area supported by each stay 74.25 sq in

Working pressure by rules 133

End plates in steam space:

Material steel

Thickness 29/32"

Pitch of stays 15" x 19"

How are stays secured D.R. &amp; L.

Working pressure by rules 132

Material of stays steel

Diameter at smallest part 1 1/2"

Area supported by each stay 295 sq in

Working pressure by rules 154

Material of Front plates at bottom steel

Thickness 29/32"

Material of Lower back plate steel

Thickness 29/32"

Greatest pitch of stays 14" x 9 3/4"

Working pressure of plate by rules 195

Diameter of tubes 3"

Pitch of tubes 4 1/4" x 4 1/8"

Material of tube plates steel

Thickness: Front 29/32"

Back 1 1/16"

Mean pitch of stays 10 1/2"

Distance across wide water spaces 14"

Working pressures by rules 150 lbs

Girders to Chamber tops: Material steel

Depth and

thickness of girder at centre 6 1/2" x 1 1/2"

Length as per rule 25"

Distance apart 11"

Number and pitch of stays in each two 6 3/4"

Working pressure by rules 134 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

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

Are they fitted with easing gear

w949-0052

Lloyds Register Foundation



WEB-FRA  
WEB-FR  
WEB-FR  
BRACK  
Web I  
BULK  
W.T.B  
Boiler  
are  
are

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. \_\_\_\_\_ Description \_\_\_\_\_  
Made at \_\_\_\_\_ By whom made \_\_\_\_\_  
Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_  
Valves \_\_\_\_\_ No. of Safety Valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of \_\_\_\_\_  
If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_ Date of adjustment \_\_\_\_\_  
Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Dia. of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_  
Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_  
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 \_\_\_\_\_ Radius of do. \_\_\_\_\_ Stayed by \_\_\_\_\_  
Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of pump bolts & nuts, & a quantity of bolts & nuts & iron of various sizes.

FOR EARLE'S  
SHIPBUILDING & ENGINEERING CO. LIMITED.

The foregoing is a correct description,  
J. J. Salethorpe

Manufacturer.

Dates of Survey  
During progress of work in shops -- 1911. Nov. 6, 7, 10, 20, 22, 29. Dec. 1, 5, 6, 15, 21. 1912. Jan. 4, 6, 9, 11, 15, 16, 18, 19, 22, 24, 25, 29.  
While building -- Feb. 5, 9, 16, 21, 22, 26. Mar. 8, 21. Apr. 19. May 1. Jun. 20. Aug. 30, 31. Sep. 2, 3, 5, 6, 7, 9, 10, 12.  
Total No. of visits 45

Is the approved plan of main boiler forwarded herewith *Rpt No. 4*

Dates of Examination of principal parts—Cylinders 4-1-12 Slides 6-1-12 Covers 6-1-12 Pistons 16-1-12 Rods 16-1-12  
Connecting rods 16-1-12 Crank shaft 16-2-12 Thrust shaft 16-2-12 Tunnel shafts 16-2-12 Screw shaft 16-2-12 Propeller 21-3-12  
Stern tube 2-9-12 Steam pipes tested 30-4-12 Engine and boiler seatings 31-8-12 Engines holding down bolts 7-9-12  
Completion of pumping arrangements 12-9-12 Boilers fixed 9-9-12 Engines tried under steam 12-9-12  
Main boiler safety valves adjusted 12-9-12 Thickness of adjusting washers 3/16 both  
Material of Crank shaft steel Identification Mark on Do. 744 JB Material of Thrust shaft steel Identification Mark on Do. 744  
Material of Tunnel shafts steel Identification Marks on Do. 944 FLS Material of Screw shafts steel Identification Marks on Do. 944  
Material of Steam Pipes solid drawn copper ✓ Test pressure 400 lbs ✓

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery for this vessel has been constructed under special survey in accordance with the approved plan & the rules of this society, the material & workmanship is good; the boiler has been tested by hydraulic pressure to 260 lbs & found sound & tight. The main steam has been properly fitted & secured on board & satisfactorily tried under steam. The safety valves have been adjusted under steam & tested for accumulation.  
In my opinion the vessel is eligible for the record & L.M.C. 9, 12

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 9, 12.

The amount of Entry Fee .. £ 1 : 0 :  
Special .. £ 2 : 0 :  
Donkey Boiler Fee .. £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 14. 11. 1912  
When received, 24. 12. 1912

Frank L. Stanger  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUE. NOV. 19, 1912

Assigned



© 2020 Lloyd's Register Foundation