

# REPORT ON MACHINERY.

No. 53304

THUR. 1 AUG 1907

Port of Newcastle

Received at London Office

No. in Survey held at

Date, first Survey Jan 29

Last Survey 26 July 1907

7. Book.

on the

S/S Kabinga

ster

Built at Newcastle

By whom built Armstrong Whitworth & Co

Tons Gross 4657

Net 2925

When built 1907

ines made at

Newcastle

By whom made

N.E. M. Eng 6014

when made 1907

ilers made at

Newcastle

By whom made

N.E. M. Eng 6014

when made 1907

gistered Horse Power

Owners Bucknall Bros

Port belonging to London

m. Horse Power as per Section 28

477

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

GINES, &c.—Description of Engines

Tri Cpd

No. of Cylinders 3

No. of Cranks 3

a. of Cylinders

27. 45. 75

Length of Stroke 48

Revs. per minute 67

Dia. of Screw shaft

as per rule 14.9

Material of screw shaft

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

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

If two

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

Length of stern bush 5' 6"

Dia. of Tunnel shaft

as per rule 13.38

Dia. of Crank shaft journals

as per rule 14.04

Dia. of Crank pin 14.2

Size of Crank webs 28.4 x 9.4

Dia. of thrust shaft under

ollars 14.2

Dia. of screw 18.2

Pitch of Screw 18.2

No. of Blades 4

State whether moveable M

Total surface 100 f

To. of Feed pumps 2

Diameter of ditto 9.2 x 7

Stroke 21"

Can one be overhauled while the other is at work yes

To. of Bilge pumps 2

Diameter of ditto 4.2

Stroke 26"

Can one be overhauled while the other is at work yes

To. of Donkey Engines 3

Sizes of Pumps 7.2 x 10, 7.2 x 4.2 x 10, 6.6 x 6

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

In Holds, &c. Nos. 1, 2, 3 two 3.2

n Engine Room 4 of 3.2

4.4. Three of 3.2

No. of Bilge Injections 1

sizes 6

Connected to condenser, or to circulating pump CP

Is a separate Donkey Suction fitted in Engine room & size 3.2

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

Are they Valves or Cocks both

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

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

How are they protected

What pipes are carried through the bunkers none

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 25.5.07

of Stern Tube 18.6.07

Screw shaft and Propeller 18.6.07

Is the Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door yes

worked from top platform

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel Spencer & Sons Ltd

Total Heating Surface of Boilers 6492

Is Forced Draft fitted yes

No. and Description of Boilers 3 S.E.

Working Pressure 180 lbs

Tested by hydraulic pressure to 360

Date of test 18/6/07

No. of Certificate 7514

Can each boiler be worked separately yes

Area of fire grate in each boiler 57 3/4 f

No. and Description of Safety Valves to

each boiler 2 spring

Area of each valve 9.6"

Pressure to which they are adjusted 185

Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2.6

Mean dia. of boilers 14.6

Length 11.98

Material of shell plates S

Thickens 13.2

Range of tensile strength 28.4.32

Are the shell plates welded or flanged ends

Descrip. of riveting: cir. seams

lap

long. seams 2.6 x 11.5

Diameter of rivet holes in long. seams 1 5/16

Pitch of rivets 8 5/8

Lap of plates or width of butt straps 19"

Per centages of strength of longitudinal joint

rivets 91.6

Working pressure of shell by rules 206

Size of manhole in shell 16 x 12 ends

Material S

Size of compensating ring flanged

No. and Description of Furnaces in each boiler 3 Deag

Material S

Thickens: Sides 5/8

Back 5/8

Top 5/8

Bottom 1"

Working pressure of furnace by the rules 198

Combustion chamber plates: Material S

Pitch of stays to ditto: Sides 8 x 8

Back 8 x 8

Top 8 x 8

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules 181 1/2

End plates in steam space:

Material of stays S

Thickens at smallest part 1.44

Area supported by each stay 64

Material S

Thickens 1 7/16

Pitch of stays 20.2 x 19.8

How are stays secured 4 nuts

Working pressure by rules 244

Material of Front plates at bottom S

Thickens at smallest part 8.48

Area supported by each stay 37.3

Working pressure of plate by rules 220

Thickens 7/8

Material of Lower back plate S

Thickens 1 5/8

Greatest pitch of stays 14.2

Working pressure of plate by rules 220

Diameter of tubes 2.2

Pitch of tubes 3 3/4 x 3 3/4

Material of tube plates S

Thickens: Front 7/8

Pitch across wide water spaces 14.2

Working pressures by rules 264

Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 9.4 x 12

Length as per rule 32.2

Distance apart 8

Number and pitch of stays in each 30/8

Can the superheater be shut off and the boiler worked

Working pressure by rules 198

Superheater or Steam chest; how connected to boiler

Description of longitudinal joint

Diam. of rivet

separately

Diameter

Length

Thickens of shell plates

Material

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickens

End plates: Thickens

How stayed

Are they fitted with easing gear

If stiffened with rings

Distance between rings

Working pressure by rules

Area of safety valves to superheater

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Working pressure of end plates

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Are they fitted with easing gear

Working pressure of end plates

Area of safety valves to superheater



VERTICAL DONKEY BOILER—

Manufacturers of Steel *None*

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 \_\_\_\_\_ Rivets \_\_\_\_\_ 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:— 1 Set connecting rod bolts & nuts, two main bearing bolts & nuts, 1 set coupling bolts & nuts, 1 set duplex feed pump valves, 1 set bilge pump valves, propeller shaft, nut bolts & assorted iron.

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

*J. J. Harrison*  
 Dates of Survey while building \_\_\_\_\_  
 During progress of work in shops— \_\_\_\_\_  
 During erection on board vessel— \_\_\_\_\_  
 Total No. of visits 30  
 Is the approved plan of main boiler forwarded herewith *yes*

*229107*  
 Dates of Examination of principal parts—Cylinders *6/5/07* Slides *6/5/07* Covers *6.5.07* Pistons *6/5/07* Rods *6/5/07*  
 Connecting rods *9.4.07* Crank shaft *21.9.07* Thrust shaft *29.1.07* Tunnel shafts *11.2.07* Screw shaft *26.3.07* Propeller *24.5.07*  
 Stern tube *24.5.07* Steam pipes tested *9 April* Engine and boiler seatings *25/5/07* Engines holding down bolts *17/6/07*  
 Completion of pumping arrangements *26.7.07* Boilers fixed *18/6/07* Engines tried under steam *10 July*  
 Main boiler safety valves adjusted *10 July* Thickness of adjusting washers *P.B. 1/8 S. C.B. 3/8 S. S.B. 3/8 S. 7/16*  
 Material of Crank shaft *R.T.F.S.* Identification Mark on Do *R.T.T.* Material of Thrust shaft *J.* Identification Mark on Do *R.T.F.*  
 Material of Tunnel shafts *J.* Identification Marks on Do *R.T.T.* Material of Screw shafts *J.* Identification Marks on Do *R.T.F.*  
 Material of Steam Pipes *H.I.* Test pressure *540*

General Remarks (State quality of workmanship, opinions as to class, &c. *Machinery and boiler constructed under Special Survey, materials and workmanship good. Engines and boilers examined under full steam & found satisfactory. In my opinion this vessel is eligible for record of L.M.C.*

It is submitted that  
 this vessel is eligible for F.D.  
 THE RECORD *LMC 7.07* ELEC LIGHT

The amount of Entry Fee £ *3* : :  
 When applied for, *31 JUL 1907*  
 £ *43* : *17* :  
 When received, *2.8.07*  
 Travelling expenses (if any) £ : :  
 Committee's Minute *FRI. 2 AUG 1907*

Assigned \_\_\_\_\_

MACHINERY CERTIFICATE  
 WRITTEN.



Lloyd's Register  
 Foundation