

REPORT ON MACHINERY.

No. 48434.

Port of Newcastle.

Received at London Office MAR. 9 1905

Date, first Survey Aug 23.

Last Survey March 3 1905.

No. in Survey held at Newcastle.

(Number of Visits 27.)

Reg. Book. S/S "Bosanka"

Tons { Gross 3463
Net 2264

Master R. Arneich Built at Newcastle.

By whom built Northumberland S.S. Co. Ld.

When built 1905

Engines made at Newcastle

By whom made H. & M. Eng. Co. Ld.

when made 1905

Boilers made at "

By whom made "

when made 1905

Registered Horse Power

Owners Hav. a Kap. Nafried

Port belonging to Ragusa

Nom. Horse Power as per Section 28 300

Is Refrigerating Machinery fitted no.

Is Electric Light fitted no.

ENGINES, &c.—Description of Engines In C.P.D.

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24" 40" 65" Length of Stroke 45 Revs. per minute 65

Dia. of Screw shaft as per rule 13.9" as fitted 14.8" Material of screw shaft 9

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no.

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 ✓

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

liners are fitted, is the shaft lapped or protected between the liners no.

Length of stern bush 4' 11"

Dia. of Tunnel shaft as per rule 11.6" as fitted 11.8"

Dia. of Crank shaft journals as per rule 12.2" as fitted 12.5"

Dia. of Crank pin 12.5" Size of Crank webs 24 x 8 1/2" Dia. of thrust shaft under collars 12 1/2"

Dia. of screw 16' 3" Pitch of screw 17 1/2"

No. of blades 4 State whether moceable f Total surface 83 1/2"

No. of Feed pumps 2 1/2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes.

No. of Donkey Engines 2 Sizes of Pumps 7 1/2 x 9 x 10 & 6 x 4 x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 of 3 1/2" & 1 of 2 1/2"

In Holds, &c. 2 of 3 1/2" in each hold

No. of bilge injections 1 sizes 4" Connected to condenser, or to circulating pump C.P. Is a separate donkey suction fitted in Engine room & size 3 1/2"

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 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 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

were stern tube, propeller, screw shaft, and all connections examined in dry dock new ship Is the screw shaft tunnel watertight yes

fitted with a watertight door yes worked from top platforms.

BOILERS, &c.—

(Letter for record B) Total Heating Surface of Boilers 4470 1/2 Is forced draft fitted no.

Description of Boilers 2 S. & M. Marine type Working Pressure 160 lb Tested by hydraulic pressure to 320 lb

The Spring Can each boiler be worked separately yes Area of fire grate in each boiler 64.3 1/2 No. and Description of safety valves to

Area of each valve 8.3 0 Pressure to which they are adjusted 160 lb. Are they fitted with easing gear yes

Distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 15.7 1/2" Length 10' 6" Material of shell plates S

Range of tensile strength 32 Are they welded or flanged Ends Descrip. of riveting: cir. seams 2. r. lap long. seams d. butt. Straps

Number of rivet holes in long. seams 18" Pitch of rivets 7 3/4" Lip of plates or width of butt straps 16 5/8"

Percentages of strength of longitudinal joint 85 Working pressure of shell by rules 165 lb Size of manhole in shell 16 x 12"

of compensating ring flanged No. and Description of Furnaces in each boiler 3 Deeg's Material S Outside diameter 42 1/2"

Length of plain part top 9" Thickness of plates bottom 32 Description of longitudinal joint weld No. of strengthening rings -

Working pressure of furnace by the rules 182 Combustion chamber plates: Material S Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 15/16

Number of stays to ditto: Sides 10" x 10" Back 10 1/2 x 9 1/2" Top 10" x 10" If stays are fitted with nuts or riveted heads nuts. Working pressure by rules 163 lb

Material of stays S Diameter at smallest part 1.5" Area supported by each stay 100" Working pressure by rules 179 End plates in steam space:

Material S Thickness 1 1/2" Pitch of stays 24" x 22" How are stays secured 2 nuts Working pressure by rules 162. Material of stays S

Diameter at smallest part 8.48 Area supported by each stay 528 Working pressure by rules 161 Material of Front plates at bottom S

Material of Lower back plate S Thickness 7/8" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 173

Thickness of tubes 4 1/2" x 4 3/8" Material of tube plates S Thickness: Front 1/16" Back 3/4" Mean pitch of stays 8 1/8"

Working pressures by rules 171 lb Girders to Chamber tops: Material S Depth and

thickness of girder at centre 8" x 12" Length as per rule 29' Distance apart 10" Number and pitch of Stays in each 2 of 10"

Working pressure by rules 171. Superheater or Steam chest; how connected to boiler - Can the superheater be shut off and the boiler worked

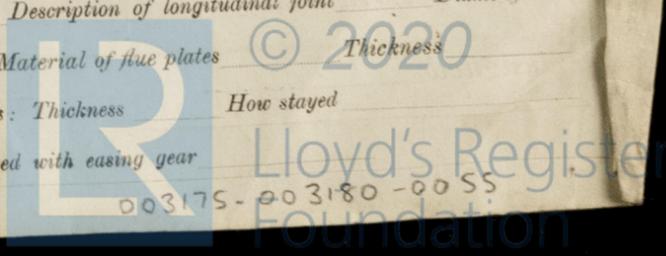
separately - Diameter - Length - Thickness of shell plates - Material - Description of longitudinal joint - Diam. of rivet

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 by rules - End plates: Thickness - How stayed -

Working pressure of end plates - Area of safety valves to superheater - Are they fitted with easing gear -

2000-5-03-Copyable Ink



See note already inside

DONKEY BOILER— No. 1 Description *Multitubular.*
 Made at *Gateshead.* By whom made *Clarke Chapman No. 1* When made *1905* Where fixed *Main deck*
 Working pressure *80* tested by hydraulic pressure to *160 lb* No. of Certificate *6932* Fire grate area *24* Description of safety valves *Spring*
 No. of safety valves *2* Area of each *5.9* Pressure to which they are adjusted *85 lb* If fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler *No* Dia. of donkey boiler *9 ft.* Length *9 ft.* Material of shell plates *S.* Thickness *5/8* Range of tensile strength *27-32* Descrip. of riveting long. seams *Lap 7. rod* Dia. of rivet holes *13/16* Whether punched or drilled *D* Pitch of rivets *4 1/4*
 Lap of plating *6 1/8* Per centage of strength of joint Rivets *82.7* Plates *80.8* Thickness of shell *end 5/8* crown-plates *5/8* Radius of do. *✓* No. of Stays to do. *6*
 Dia. of stays. *1 3/4* Diameter of furnace Top *2' 9"* Bottom *✓* Length of furnace *6' 9"* Thickness of furnace plates *1/16* Description of joint *L.S.R.* Thickness of furnace crown plates *9/16 + 3/8* Stayed by *18 stays* Working pressure of shell by rules *88 lb.*
 Working pressure of furnace by rules *90 lbs* Diameter of uptake *3"* Thickness of uptake plates *5/8* Thickness of water tubes *10 W.G.*

SPARE GEAR. State the articles supplied:— *1 set connecting rod top and bottom end bolts and nuts, 2 main bearing bolts and nuts, 1 set of Coupling bolts & nuts, 1 set feed & bilge pump valves propeller nuts bolts and assorted iron.*

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD. Manufacturer.

Jay Harrison

Dates of Survey while building
 During progress of work in shops— ASSISTANT SECRETARY. 1904. Aug. 23. Sep. 1. Nov. 4. 10. 14. 16. 21. 22. 28. 29. Dec. 12. 13. 16. 1905. Jan. 6. 14. 18. 19. 20. 23. 24. 27. 31.
 During erection on board vessel— Feb. 1. 2. 6. 8. 24. Mch. 3
 Total No. of visits *27* Is the approved plan of main boiler forwarded herewith *Yes*
 " " " donkey " " " *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c. *Machinery and boilers*)
Constructed under special survey. Materials and workmanship good. Engines and boilers examined under full working conditions and found to be satisfactory. In my opinion this vessel is eligible for the record of L.M.C. 3/05 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD L.M.C. 3.05.

RL 9.3.05
MS 9.3.05

Newcastle-on-Tyne.

Certificate (if required) to be sent to Committee's Minute.
 (The Surveys are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee... £ 3: : :
 Special £ 35: : :
 Donkey Boiler Fee £ : : :
 Travelling Expenses (if any) £ : : :
 When applied for, - 8 MAR 1905
 When received, 13 3 05

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

Committee's Minute
 Assigned
 FRI. 10 MAR 1905
 + L.M.C. 3.05



MACHINERY CERTIFICATE
 WRITTEN