

REPORT ON MACHINERY.

Port of *Newcastle-on-Tyne*No. in Survey held at *Newcastle*
Book.Date, first Survey *July 12th*

Received at London Office

Last Survey *Oct 25th 1901*(Number of Visits *25*)

12 on the

*% FORTUNATUS*Tons { Gross *2425*
Net *2135*

ster

*Frith*Built at *Newcastle*By whom built *Armstrong Whitworth & Co.*When built *10-1901*ines made at *Newcastle*By whom made *The North Eastern Marine Eng^s Co* when made *10-1901*lers made at *Newcastle*By whom made *The North Eastern Marine Eng^s Co* when made *10-1901*

istered Horse Power

Owners *Archibald Currie & Co.*Port belonging to *Melbourne*n. Horse Power as per Section 28 *399 390*Is Refrigerating Machinery fitted *No*Is Electric Light fitted *yes*

GINES, &c.—Description of Engines

*Triple*No. of Cylinders *3* No. of Cranks *3*

Length of Stroke *48"* Revs. per minute *75* Dia. of Screw shaft as per rule *14 5/8"* as fitted *15"* Lgth. of stern bush *5-1"*
 Dia. of Crank shaft journals as per rule *13 1/8"* as fitted *13 1/8"* Dia. of Crank pin *13 5/8"* Size of Crank webs *25 1/2 x 9"* Dia. of thrust shaft under
 Dia. of screw *14.6"* Pitch of screw *16.6"* No. of blades *4* State whether moveable *yes* Total surface *94 sq ft*

of Feed pumps *2* Diameter of ditto *4"* Stroke *26"* Can one be overhauled while the other is at work *yes, also one pair rears feed*

of Bilge pumps *2* Diameter of ditto *4 1/2"* Stroke *26"* Can one be overhauled while the other is at work *yes pumps 7.9 1/2 x 12 1/2"*

of Donkey Engines *5 duplex* Sizes of Pumps *6.4, 6.10 1/2, 7.10, 6.4 1/2, 6"* No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room *4000 3 1/2"* In Holds, &c. *Fore, main & After main holds*

two *3 1/2"* each, After hold well one *3 1/2"*, Tunnel well one *3 1/2"*.

of bilge injections *1* sizes *6"* Connected to condenser, or to circulating pump *pump* Is a separate donkey suction fitted in Engine room & size *yes 3 1/2"*

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 *none*

all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *both*

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*

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*

at pipes are carried through the bunkers *none* How are they protected *—*

all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *yes*

the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *yes*

en were stern tube, propeller, screw shaft, and all connections examined in dry dock *22-10-07* Is the screw shaft tunnel watertight *yes*

t fitted with a watertight door *yes* worked from *main deck*

ELERS, &c.— (Letter for record *S*) Total Heating Surface of Boilers *5280 sq ft* Is forced draft fitted *yes*

and Description of Boilers *3 Mult. Single ended* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs*

of test *10-9-07* Can each boiler be worked separately *yes* Area of fire grate in each boiler *43 sq ft* No. and Description of safety valves to

boiler *2 direct spring* Area of each valve *7.06"* Pressure to which they are adjusted *185 lbs* Are they fitted with easing gear *yes*

least distance between boilers or uptakes and bunkers *12"* Mean dia. of boilers *12.10 3/32"* Length *11.0* Material of shell plates *Steel*

thickness *5/32"* Range of tensile strength *29.32* Are they welded or flanged *no* Descrip. of riveting: cir. seams *d r lap* long. seams *DBS TR*

number of rivet holes in long. seams *1 1/32"* Pitch of rivets *8 5/16"* Lap of plates or width of butt straps *17 1/8"*

percentages of strength of longitudinal joint rivets *90.2* Working pressure of shell by rules *206 lbs* Size of manhole in shell *end 16 x 12*

of compensating ring *flange in* No. and Description of Furnaces in each boiler *3 Brightons* Material *Steel* Outside diameter *40"*

length of plain part top *—* Thickness of plates crown *1/2"* Description of longitudinal joint *welded* No. of strengthening rings *none*

working pressure of furnace by the rules *188 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *1/16"* Back *1/16"* Top *1/16"* Bottom *1/8"*

length of stays to ditto: Sides *9 3/4 x 8 1/4"* Back *9 3/4 x 8 1/4"* Top *9 3/4 x 8 1/4"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *190 lbs*

material of stays *Steel* Diameter at smallest part *1 1/2"* Area supported by each stay *85.3"* Working pressure by rules *200 lbs* End plates in steam space:

material *Steel* Thickness *1 3/8"* Pitch of stays *20 x 18"* How are stays secured *DN+W* Working pressure by rules *244 lbs* Material of stays *Steel*

number at smallest part *3 1/16"* Area supported by each stay *360 lbs* Working pressure by rules *201 lbs* Material of Front plates at bottom *Steel*

thickness *7/8"* Material of Lower back plate *Steel* Thickness *3/4"* Greatest pitch of stays *14 1/2 x dbl* Working pressure of plate by rules *207 lbs*

number of tubes *2 1/2"* Pitch of tubes *3 3/4 x 3 3/4"* Material of tube plates *Steel* Thickness: Front *7/8"* Back *3/4"* Mean pitch of stays *7 1/2"*

length across wide water spaces *14 1/2 x dbl* Working pressures by rules *285 lbs* Girders to Chamber tops: Material *Steel* Depth and

thickness of girder at centre *9 1/2 x 4.2 plates* Length as per rule *29"* Distance apart *8 3/4"* Number and pitch of Stays in each *2-9 3/4"*

working pressure by rules *220 lbs* 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

— Pitch of rivets *—* Working pressure of shell by rules *—* Diameter of flue *—* Material of flue plates *—* Thickness *—*

strengthened 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 *—*

DONKEY BOILER— No. 0 Description

Made at _____ By whom made _____ When made _____ Where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers _____
enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of ten-
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 _____ 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
joint _____ Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— Two top & two bottom end bolts, two main beam bolts, one set-coupling bolts, one set-geece, one set-bidge & one set-donkey feed valves, also one set-Meirs feed pump valves. propeller boss, 2 blades propeller shaft, air & circulating pump rods & buckets, 2 feed pump runs etc.

The foregoing is a correct description,

THE NORTH EASTERN MARINE ENGINEERING CO. LTD.

Manufacturer.

Dates of Survey while building { During progress of work in shops - 1901. July. 12. 14. 19. 21. 24. 29. 30. Aug. 2. 12. 14. 16. 21. 22. 26. Sept. 10. 17. 20. 25. Oct. 2. 3. 14. 21. 22. 23. 25
During erection on board vessel - - -
Total No. of visits 25

Is the approved plan of main boiler forwarded herewith ☒ Yes
" " " donkey " " " ☒

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

Material of screw shaft Bar iron Is the screw shaft fitted with a continuous liner the whole length of the stern tube ☒ Yes, close fit
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 ☒ no
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 ☒ no If two liners are fitted, is the shaft lapped or protected between the liners ☒

The machinery of this vessel has been fitted on board under Special Survey the workmanship is sound & good.
The machinery has been tried under steam as required by the Rules & found satisfactory which in my opinion renders the vessel for the record of + L.M.C 10-01 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C 10. 01. Etc light.

C.M.
2. 11. 01.

R.S.
4. 11. 01

The amount of Entry Fee. £ 3 : 0 : 0 When applied for,
Special £ 39 : 19 : 0 1 NOV 1901
Donkey Boiler Fee £ : : :
Travelling Expenses (if any) £ : : : When received, 14/11/01

Committee's Minute

TUES. NOV 5 1901

Assigned

+ L.M.C 10, 01 72

Robert Haig,
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Foundation