

REPORT ON MACHINERY.

Mr. No. 38549
Sld 19756

Port of "Newcastle"

WED: JUL 19 1899

No. in Survey held at Newcastle & Sunderland Date, first Survey 19/98
Reg. Book. on the s/s "Wilcannia"

Received at London Office

Last Survey 16 June 1899

(Number of Visits 43)

Gross 4953

Tons Net 3129.

When built 1899

Master J. E. Ilbery Built at Sunderland By whom built Sunderland S. B. Co. Ltd.
Engines made at Newcastle By whom made North Eastern Marine when made 6-1899
Boilers made at Newcastle By whom made North Eastern Marine Eng. Co. when made 6-1899
Registered Horse Power Owners W. Lund.
Port belonging to London.

Nom. Horse Power as per Section 28 584

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Triple

No. of Cylinders 3

No. of Cranks 3

Diameter of Cylinders 28" 47" 78" Length of Stroke 54" Revolutions per minute 65. Diameter of Screw shaft as per rule 15"
Diameter of Tunnel shaft as fitted 14 1/2" Diameter of Crank shaft journals 15" Diameter of Crank pin 15" Size of Crank webs 28 1/2" x 9 3/4"
Diameter of screw 18" 9" Pitch of screw 19" 6" No. of blades 4 bronze State whether moveable Yes Total surface 100 sq ft
No. of Feed pumps 2 Viers Diameter of ditto 12" x 9" Stroke 21" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 5" Stroke 30" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 4 Duplex Sizes of Pumps 5 1/2" x 4 1/2" x 5" 6" x 4" x 6" 7" x 9" 10" x 6" x 10" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4, 3 1/2" dia
In Holds, &c. 2 of 3 1/2" to each hold
after hold tunnel wells 3 1/2" each.No. of bilge injections 1 sizes 7" Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size Yes 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 accessibleAre all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks 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 aboveAre 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from upper deck

BOILERS, &c.—

(Letter for record 8)

Total Heating Surface of Boilers 8320 sq ft

Is forced draft fitted Yes

No. and Description of Boilers 4 Multi Single ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs

Date of test 23-3-99 Can each boiler be worked separately Yes Area of fire grate in each boiler 52.8 sq ft No. and Description of safety valves to
each boiler Two spring loaded Area of each valve 9.62 sq in Pressure to which they are adjusted 180 lbs Are they fitted

with easing gear Yes Smallest distance between boilers or uptakes and bunkers 16" Mean diameter of boilers 13-9 5/8"

Length 11-6" Material of shell plates Steel Thickness 1 3/16" Description of riveting: circum. seams D.R. Lap long. seams DBS, TR

Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/8" Lap of plates or width of butt straps 1 1/4" 29/32"

Per centages of strength of longitudinal joint rivets 94.8 plate 84.6 Working pressure of shell by rules 195 lbs Size of manhole in shell end 16" x 12"

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Suspension Material Steel Outside diameter 44 1/2"

Length of plain part top — bottom — Thickness of plates crown 9" bottom 7 1/16" Description of longitudinal joint welded No. of strengthening rings none

Working pressure of furnace by the rules 198 lbs Combustion chamber plates: Material Steel Thickness: Sides 7/16" Back 7/16" Top 7/16" Bottom 29/32"

Pitch of stays to ditto: Sides 9" x 8 3/4" Back 9 3/4" x 8 3/4" Top 9 3/4" x 8 3/4" 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 85.8 sq in Working pressure by rules 188 lbs End plates in steam space:

Material Steel Thickness 1 3/32" Pitch of stays 20 1/2" x 19 1/2" How are stays secured D.N. & W. Working pressure by rules 243 lbs Material of stays Steel

Diameter at smallest part 3 5/8" Area supported by each stay 194 sq in Working pressure by rules 206 lbs Material of Front plates at bottom Steel

Thickness 3/8" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 15" (double) Working pressure of plate by rules 287 lbs

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 3/4" Material of tube plates Steel Thickness: Front 5/8" Back 5/8" Mean pitch of stays 9 3/8"

Pitch across wide water spaces 14 1/2" double Working pressures by rules 266 lbs Girders to Chamber tops: Material Steel Depth and

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

Working pressure by rules 189 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

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 —

DONKEY BOILER—

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 can enter the donkey boiler _____
 Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
 Description of riveting long seams _____ Diameter 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 of 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:—

1. Set of connecting rod top & bottom end bolts and nuts
2. main bearing bolts & nuts. 1 set of coupling bolts & nuts.
- 1 set of feed & bulge pump valves. prop shaft prop & 1/2 b. over.

The foregoing is a correct description,

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

Dates of Survey while building { During progress of work in shops - 1898. Nov. 2. 4. 5. 11. 18. 22. 29. Dec. 2. 7. 9. 20. 23. 1899. Jan. 6. 11. 14. 31. Feb. 3. 8. 16. 22. 24
 During erection on board vessel - Mar. 3. 10. 17. 23. 27. 29. Apr. 6. 10. 12. 20. 28. May. 1. 15. 24. 30. June. 5. 6. 7. 9. 12. 14. 16
 Total No. of visits 43
 All Dates 1898. Sept. 1. 1899. June 20. 27. July 3. 4. 8.

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

ENGINES—Length of stern bush 5-6 Diameter of crank shaft journals as per rule 14 1/4" as fitted 15" Diameter of thrust shaft under collars 14 1/4"
 BOILERS—Range of tensile strength 29-32 Are they welded or flanged flanged DONKEY BOILERS—No Range of tensile strength _____
 Is the approved plan of main boiler forwarded herewith Yes Is the approved plan of donkey boiler forwarded herewith ✓

The engines & boilers of this vessel has been fitted on board under special survey the workmanship is good throughout. The main steam pipes have been tested by hydraulic test to 360 lbs. The machinery has been tried under steam & found satisfactory, which in our opinion renders the vessel eligible for the record of + L.M.C. 7-99 in the Register Book.

This vessel has been fitted with Haslem's dry air refrigerating system.

It is submitted that
 this vessel is eligible for
 THE RECORD, + L.M.C. 7-99. See Light. F.D. Ref.

+ L.M.C. 7-99. See Light. F.D. Ref.

The amount of Entry Fee... £ 3 : 0 : 0 When applied for, 27 JUN 1899
 Special .. £ 49 : 4 : 0
 Donkey Boiler Fee .. £ : : :
 Travelling Expenses (if any) £ : : :
 When received, 30.6.99
 per Sec. 6

Committee's Minute

FRI, 21 JUL 1899

Assigned

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



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