

# REPORT ON MACHINERY.

Port of Newcastle on Tyne

No. in Survey held at Newcastle

Date, first Survey Apr 6

Received at London Office FRI 21 AUG 1903

Reg. Book. 7 on the Steel Screw Steamer "Wallasey"

Last Survey Aug 14 1903

(Number of Visits 22)

Master S. Shields

Built at S. Shields

By whom built J. J. Eltringham & Co.

Tons { Gross 149  
Net .86

Engines made at S. Shields

By whom made G. J. Grey

When built 1903

Boilers made at S. Shields

By whom made J. J. Eltringham and Co.

when made 1903

Registered Horse Power ✓

Owners Alexandra Towing Co.

when made 21.7.03

Net Horse Power as per Section 28 97

Is Refrigerating Machinery fitted no

Port belonging to Liverpool

Is Electric Light fitted no

GINES, &c.—Description of Engines Vertical Compound Surface Condensing

No. of Cylinders 2 No. of Cranks 2

a. of Tunnel shaft as per rule 8.1.3 Length of Stroke 27" Revs. per minute 120 Dia. of Screw shaft as per rule 9.2 Lgth. of stern bush 3'-1"

a. of Crank shaft journals as per rule 8.3.2 Dia. of Crank pin 8 5/8" Size of Crank webs 13x6 Dia. of thrust shaft under

lars 8 5/8" Dia. of screw 9'-8" Pitch of screw 12 1/2" No. of blades 4 State whether moveable no Total surface 36 sq

a. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 15" Can one be overhauled while the other is at work yes

a. of Bilge pumps 2 Diameter of ditto 2 1/4" Stroke 15" Can one be overhauled while the other is at work yes

a. of Donkey Engines 1 Sizes of Pumps 5 1/4" x 3 1/2" x 5 duplex No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 3 x 2' dia In Holds, &c. Stokehold 1 x 2' dia

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

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 yes

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 Main & Auxiliary How are they protected 1/2" steel casing, pipes covered with asbestos

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

in were stern tube, propeller, screw shaft, and all connections examined in dry dock yes Is the screw shaft tunnel watertight no tunnel

fitted with a watertight door yes worked from yes

Boilers, &c.—(Letter for record (5)) Total Heating Surface of Boilers 1560 sq Is forced draft fitted no

and Description of Boilers One, Cyl. Mult. Single end. Working Pressure 150 lb Tested by hydraulic pressure to 300 lb

of test 21.7.03 Can each boiler be worked separately yes Area of fire grate in each boiler 57.5 sq No. and Description of safety valves to

boiler 2 Spring loaded Area of each valve 7.06 sq Pressure to which they are adjusted 155 lb Are they fitted with easing gear yes

test distance between boilers or uptakes and bunkers 7 feet Mean dia. of boilers 14'-1 1/2" Length 10'-0" Material of shell plates 5

ness 1 1/2" Range of tensile strength 28/T Are they welded or flanged yes Descrip. of riveting: cir. seams 2.4. D. R. long. seams D. Butt. T. R.

eter of rivet holes in long. seams 1 1/8" Pitch of rivets 6 3/4" (4. p. p.) Lap of plates or width of butt straps 15 3/4"

entages of strength of longitudinal joint 85% Working pressure of shell by rules 154 lb Size of manhole in shell 16" x 12"

f compensating ring 7 1/2" x 1 1/2" No. and Description of Furnaces in each boiler 3. Hydrum Material S. Outside diameter 46"

h of plain part top 1 1/2" Thickness of plates 15/32" Description of longitudinal joint Weld. No. of strengthening rings ✓

ing pressure of furnace by the rules 150 lb Combustion chamber plates: Material S. Thickness: Sides 9/32" Back 9/32" Top 9/32" Bottom 7/16"

of stays to ditto: Sides 9 3/4" x 8" Back 8 1/2" x 8 1/2" Top 9" x 8 1/2" If stays are fitted with nuts or riveted heads yes Working pressure by rules 153 lb

ial of stays S. Diameter at smallest part 1 1/32" Area supported by each stay 78 sq Working pressure by rules 172 lb End plates in steam space:

ial S. Thickness 1" Pitch of stays 17 1/2" - 17 1/2" How are stays secured O. N. W. Working pressure by rules 150 lb Material of stays S.

ter at smallest part 2 1/32" Area supported by each stay 315 sq Working pressure by rules 160 lb Material of Front plates at bottom S.

ness 7/8" Material of Lower back plate S. Thickness 27/32" Greatest pitch of stays 15 7/8" x 8 3/8" Working pressure of plate by rules 153 lb

ter of tubes 3 1/2" E. Pitch of tubes 4 3/4" - 4 3/4" Material of tube plates S. Thickness: Front 1" Back 13/16" Mean pitch of stays 14 1/2" x 9 1/2"

across wide water spaces 14 3/4" Working pressures by rules 165 lb Girders to Chamber tops: Material S. Depth and

ss of girder at centre 6" x 2 7/8" Length as per rule 31 1/4" Distance apart 8 3/4" Number and pitch of Stays in each 2-9"

ing pressure by rules 153 lb Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked

ly yes 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 ✓

ned with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓

ing pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

## DONKEY BOILER—

No.

Description

None fitted.

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

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

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:—

2 of each bolts & nuts for piston rod. Connecting  
rod & main bearing. 1 set of Coupling bolts & sets of  
feed & bilge pump valves, assorted bolts, nuts, & iron.

The foregoing is a correct description,

J. S. Ellingham &amp; Co. Manufacturer.

of London

G. L. Grey Engine Builder

Dates

of Survey

while

building

During progress of

work in shops—

During erection on

board vessel—

Total No. of visits

ENG.: 1903. Apr. 6. May 1. 19. 25. 27. June 5. 16. July 8. 14. 22. 23. 30. Aug. 4. 5. 11. 12. 13. 14.

B.L.R.: 1903. Apr. 1. 8. 21. May 7. 15. 22. 26. June 3. 9. 15. 18. July 10. 14. 20. 21.

32

Is the approved plan of main boiler forwarded herewith

yes

" " " donkey " " "

General Remarks

(State quality of workmanship, opinions as to class, &amp;c.)

Machinery fitted amidships

Material of screw shaft

Iron

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

This boiler, constructed under special survey, is of sound material and workmanship, it has been examined under test, in accordance with rule requirement, and was found to be satisfactory. The machinery of this vessel has been constructed under special survey. The workmanship & material good & eligible in my opinion to have record of + L.M.C. 803.

It is submitted that  
this vessel is eligible for  
THE RECORD. + L.M.C. 803.

Bal.

21.8.03

L.S.

24.8.03

The amount of Entry Fee..

£ 1 :

Special

£ 14 11 :

Donkey Boiler Fee

£ :

Travelling Expenses (if any)

£ :

When applied for,

24. AUG 1903

When received,

24. 8. 03

Engineer Surveyor to Lloyd's Register of British &amp; Foreign Shipping.

Committee's Minute

TUES. 25 AUG 1903

Assigned

+ June 8, 03



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Foundation