

REPORT ON MACHINERY.

No. 58334

Date of writing Report

10

When handed in at Local Office

26 APR 1910

Received at London Office

WELL 27 APR 1910

Port of

NEWCASTLE ON TYNE.

No. in Survey held at North Shields

Date, First Survey 22nd Nov '09 Last Survey 15th April 1910

Reg. Book.

on the Steel screw tender Flying Nestrel

(Number of Visits 20)

Master

Built at

South Shields

By whom built

J. T. Eltringham & Co

Tons { Gross 391

Net 139

When built 1910

Engines made at North Shields

By whom made

Shields Engineering & Dry Dock Co Ltd

189

when made 1910

Boilers made at South Shields

By whom made

J. T. Eltringham & Co

(1633)

when made 1910

Registered Horse Power

Owners

Alexandra Towing Co Ltd

Port belonging to

Liverpool

Nom. Horse Power as per Section 28 108

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines Compound

No. of Cylinders

two

No. of Cranks 2

Dia. of Cylinders 21" - 44"

Length of Stroke 30

Revs. per minute 110

Dia. of Screw shaft

as per rule 10 2 1/2

Material of

screw shaft

W.I.

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

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

Dia. of Tunnel shaft as per rule 8 3/4

Dia. of Crank shaft journals as per rule 8 3/4

as fitted 9 1/4

Dia. of Crank pin 9 1/4

Length of stern bush 3' - 5"

Built 13 1/2 x 6"

Size of Crank webs

Dia. of thrust shaft under

collars 9 1/4

Dia. of screw 10 - 3

Pitch of Screw 12 - 0

No. of Blades 4

State whether moveable No

Total surface 39 sq ft

No. of Feed pumps two

Diameter of ditto 2 1/2

Stroke 15"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps two

Diameter of ditto 2 1/2

Stroke 15"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 4

Sizes of Pumps

Fed 2 1/2" vertical duplex

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

In Engine Room 2 1/2" dia

Ballast 4 1/2 x 4 x 5 duplex

Ballast 6 x 7 x 7

Ballast 6 x 7 x 7

In Holds, &c. 1 1/2" and 1 1/2" to each tank

No. of Bilge Injections 1

sizes 4 1/2

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses Yes

Are the roses in Engine room always accessible

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

What pipes are carried through the bunkers Tank & Bilge Suctions & Steam pipes

How are they protected trunk

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 23. 2. 10

of Stern Tube 23. 2. 10

Screw shaft and Propeller 23. 2. 10

Is the Screw Shaft Tunnel watertight Yes

Is it fitted with a watertight door

Yes

worked from platform

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

J. Spencer & Son

Total Heating Surface of Boilers 1922 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers 1. S. E. Cyl. Malle

Working Pressure 120 lb

Tested by hydraulic pressure to 240 lb

Date of test 24. 1. 10

No. of Certificate 7927

Can each boiler be worked separately

Area of fire grate in each boiler 60 sq ft

No. and Description of Safety Valves to

each boiler two direct spring

Area of each valve 9.6 sq in

Pressure to which they are adjusted

125 lb

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork 9 1/2

particular plan appended

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

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

VERTICAL DONKEY BOILER—

Manufacturers of Steel

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 casing 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 _____ Radius of do. _____ Stayed by _____
 Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:—Two top end bolts nuts two bottom end bolts nuts, two main bearings bolts nuts spare coupling bolts nuts. Spare feed helge pump Valves assorted iron bolts nuts assorted stores

The foregoing is a correct description,

FOR THE SHIELDS ENGINEERING & DRY DOCK CO., LIMITED.

Manufacturer.

R. Richardson

Engine

Works

Manager

Dates of Survey while building
 During progress of work in shops— 1909 Nov. 22. Dec. 2. 16. 24. 31. 1910 Jan. 5. 19. Feb. 12. 15. 18. 19. Mar. 2. 3. 4.
 During erection on board vessel— 7. 10. 15. 21. Apr. 1. 15
 Total No. of visits 20

Is the approved plan of main boiler forwarded herewith ☒

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 24. 12. 09 Slides 19. 1. 10 Covers 5. 1. 10 Pistons 24. 12. 09 Rods 24. 12. 09
 Connecting rods 2. 12. 09 Crank shaft 16. 12. 09 Thrust shaft 16. 12. 09 Tunnel shafts 16. 12. 09 Screw shaft 5. 1. 10 Propeller 14. 12. 09
 Stern tube 18. 2. 10 Steam pipes tested 2. 3. 10 Engine and boiler seatings 3. 3. 10 Engines holding down bolts 7. 3. 10
 Completion of pumping arrangements 15. 3. 10 Boilers fixed 3. 3. 10 Engines tried under steam 15. 3. 10
 Main boiler safety valves adjusted 15. 3. 10 Thickness of adjusting washers 9/16 59/16
 Material of Crank shaft 42 Identification Mark on Do. 7026 WC Material of Thrust shaft 42 Identification Mark on Do. 7026 WC
 Material of Tunnel shafts 42 Identification Marks on Do. 7026 WC Material of Screw shafts 42 Identification Marks on Do. 7026 WC
 Material of Steam Pipes Seaming Copper Test pressure 250lb at Rilton Graham whs N. Shields

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

The machinery built under special survey the material & workmanship found good and efficient.

The machinery fitted up on board tested under steam and found satisfactory. In my opinion the vessel is eligible for the notification of T. L. M. C. H. 10. to be made in the Register Book.

It is submitted that this vessel is eligible for T. L. M. C. H. 10.

27/4/10

J. M.

The amount of Entry Fee .. £ 2 : 0 :
 Special .. £ 16 : 4 :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 26 APR 1910
 When received, 30. 5. 1910

Leonard & Challers

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

Committee's Minute

Assigned

29 APR 1910

+ L. M. C. H. 10

MACHINERY CERTIFICATE WRITTEN

copy 26. 6. 12



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