

Rpt. 4.

REPORT ON MACHINERY.

No. 53953

Port of Newcastle on Tyne

Received at London Office JUES. 10 DEC 1907

No. in Survey held at Reg. Book on the

Walsend on Tyne
Ss Ganelon

Date, first Survey May 29 06

Last Survey 29 Nov 1907

(Number of Visits 47)

Master

Built at Newcastle

By whom built Swan Hunter & Co

Tons { Gross 2674
Net 2654
When built 1907

Engines made at Wallsend

By whom made Wallsend Slipway & Eng Works when made 1904

Boilers made at

By whom made when made 1907

Registered Horse Power

Owners Rolland Line Acton Geo

Port belonging to Bremen

Nom. Horse Power as per Section 28 556

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines In Cp

No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 28" 46" 47" Length of Stroke 54" Revs. per minute 64 Dia. of Screw shaft as per rule 15.9" Material of screw shaft as fitted 16.4" B

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes 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 Yes If two

liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 59.2"

Dia. of Tunnel shaft as per rule 14.25" Dia. of Crank shaft journals as per rule 14.9" Dia. of Crank pin 15.4" Size of Crank webs 11 x 10.2" Dia. of thrust shaft under collars 15.4" Dia. of screw 19.3" Pitch of Screw 19.5" No. of Blades 4 State whether moveable Yes Total surface 116 sq

No. of Feed pumps 2 New Diameter of ditto 8 x 10.2" Stroke 21" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 5" Stroke 26" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 4 Sizes of Pumps 9 x 10 x 10, 8 x 5.2 x 8, 8 x 4 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 of 3.2" In Holds, &c. 2 of 3.2" in each hold

No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Cp Is a separate Donkey Suction fitted in Engine room & size 3.2"

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 about

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

Dates of examination of completion of fitting of Sea Connections 18/12/06 of Stern Tube 18/12/06 Screw shaft and Propeller 18/12/06

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

BOILERS, &c.—(Letter for record B) Manufacturers of Steel J Spencer & Sons Ltd

Total Heating Surface of Boilers 7785 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 S C

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 3-9-06 No. of Certificate 4305

Can each boiler be worked separately Yes Area of fire grate in each boiler 63.8 sq ft No. and Description of Safety Valves to each boiler 2 Spring Area of each valve 12.5 Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2 ft. Mean dia. of boilers 15.6 Length 11.9 Material of shell plates S

Thickness 25/64 Range of tensile strength 28-32 Are the shell plates welded or flanged Ends Descrip. of riveting: cir. seams 2 x lap long. seams 2 butt 5/8 Diameter of rivet holes in long. seams 17/16 Pitch of rivets 9 3/4 Lap of plates or width of butt straps 20 15/16

Per centages of strength of longitudinal joint rivets 88.9 plate 85.25 Working pressure of shell by rules 204 Size of manhole in shell 16 x 12

Size of compensating ring McNeil's No. and Description of Furnaces in each boiler 3 Morrison's Material S Outside diameter 4 13/16

Length of plain part top bottom Thickness of plates crown bottom 5/8 Description of longitudinal joint weld No. of strengthening rings

Working pressure of furnace by the rules 202 Combustion chamber plates: Material S Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 1

Pitch of stays to ditto: Sides 88 x 7 1/2 Back 8 x 7 1/2 Top 7 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 220 1/2

Material of stays S Diameter at smallest part 1.45 Area supported by each stay 61 Working pressure by rules 190 End plates in steam space:

Material S Thickness 1 3/8 Pitch of stays 17 x 15 1/2 How are stays secured 2 nuts Working pressure by rules 251 Material of stays S

Diameter at smallest part 6.3 Area supported by each stay 263 Working pressure by rules 240 Material of Front plates at bottom S

Thickness Material of Lower back plate S Thickness 3/8 Greatest pitch of stays 15 Working pressure of plate by rules 222 1/2

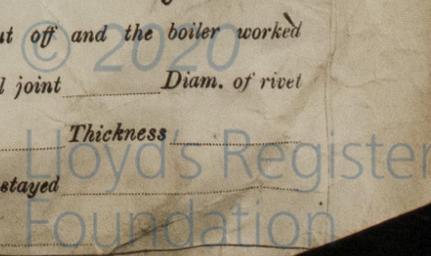
Diameter of tubes 22 Pitch of tubes 3 1/2 x 3 1/2 Material of tube plates S Thickness: Front 1 Back 3/4 Mean pitch of stays 7 1/2

Pitch across wide water spaces 13 Working pressures by rules 212 Girders to Chamber tops: Material S Depth and thickness of girder at centre 9 1/2 x 12 Length as per rule 31 5/8 Distance apart 7 1/2 Number and pitch of stays in each 3 of 7 1/2

Working pressure by rules 212 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



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 easing gear _____ If steam from main boilers or center 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 _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— 1 set connecting rod bolts & nuts, two main bearing bolts & nuts, 1 set coupling bolts & nuts, 1 set valves for the pumps, 1 set helge pump valves, propeller blades, propeller shaft, nut & bolts & assorted iron.

The foregoing is a correct description,

M. M. Marj Manufacturer.

Dates of Survey while building: During progress of work in shops— 1906 May 29 June 17 July 10 27 Aug 8 15 22 28 29 27 28 31 Sep 11 20 21 22 27 28 Oct 4 5 10 16 18 29 Nov 5 7 28 Dec 2 11 18

During erection on board vessel— 1907 Jan 16 18 21 Feb 10 19 22 Nov 6 13 21 28 29

Total No. of visits 47

Is the approved plan of main boiler forwarded herewith yes.

Dates of Examination of principal parts— Cylinders 1/5/06 Slides 1/5/06 Covers 1/5/06 Pistons 27.8.06 Rods 22.9.06

Connecting rods 22.9.06 Crank shaft 28.9.06 Thrust shaft 18.10.06 Tunnel shafts 16.10.06 Screw shaft 16.10.06 Propeller 16.10.06

Stern tube 22.8.06 Steam pipes tested 2nd Oct. 06 Engine and boiler settings 18/12/06 Engines holding down bolts 18.12.06

Completion of pumping arrangements 29.11.07 Boilers fired 18.12.06 Engines tried under steam 22.2.07

Main boiler safety valves adjusted 22.2.07 Thickness of adjusting washers PB 3/4 CS 3/4 SB 3/4

Material of Crank shaft S Identification Mark on Do. B J F Material of Thrust shaft S Identification Mark on Do. B J F

Material of Tunnel shafts S Identification Marks on Do. B J F Material of Screw shafts S Identification Marks on Do. B J F

Material of Steam Pipes W. I. Test pressure 540

General Remarks (State quality of workmanship, opinions as to class, &c. Machinery and boilers built under special survey; materials and workmanship good. Engines and boilers examined under full steam & found satisfactory. In my opinion this vessel is eligible for the record of 6/07 being 6 mos. after date of launch.

It is submitted that this vessel is eligible for THE RECORD.

L.M.C. 11-07.
ELEC. LIGHT.
F.D.

J.R. 10.12.07
J.R. 10.12.07

The amount of Entry Fee.. £ 3 : : : When applied for, 9 DEC 1907

Special .. £ 47 16 : : : When received, 11.12.07

Donkey Boiler Fee .. £ : : : 10.12.1907

Travelling Expenses (if any) £ : : : : :

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

Committee's Minute

TUES. 10 DEC 1907

FRI. 10 JUL 1908

Assigned

+ L.M.C. 11.07
elec. light & D.

MACHINERY CERTIFICATE WRITTEN.



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To be sent to Registrar-General of Shipping

The Surveyors are requested not to write on or below the space for Committee's Minute