

Rt. Stephens & Co 547 Baker
Smith Dock Co. S.S.
Shildon E

Rpt. 4.

REPORT ON MACHINERY.

No. 52330

THUR. 8 AUG 1907

Port of Newcastle on Tyne

Received at London Office

No. in Survey held at Newcastle & North Shields Date, first Survey Apr 26 Last Survey Aug 2 1907
 Reg. Book. on the Steel S.S. Oxwich Castle (Number of Visits 18)
 Master Built at North Shields By whom built Smeths Dock Cold (348) Tons { Gross 252 Net 79 When built 1907
 Engines made at North Shields By whom made Shields Engineering Co Ltd (94) when made 1907
 Boilers made at Newcastle By whom made Rt. Stephens & Co Ltd when made 1907
 Registered Horse Power Owners Castle Steam Trawlers Ltd Port belonging to Swansea
 Nom. Horse Power as per Section 28 71 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/2, 20, 34 Length of Stroke 24 Revs. per minute 108 Dia. of Screw shaft 7 3/4 as per rule 7 3/4 as fitted 7 1/2 Material of screw shaft W. 7
 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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 2'-9 1/2"
 Dia. of Tunnel shaft 6 3/4 as per rule 6 3/4 as fitted none Dia. of Crank shaft journals 6 3/4 as per rule 6 3/4 as fitted 6 3/4 Dia. of Crank pin 6 3/4 Size of Crank webs 12 1/2 Dia. of thrust shaft under collars 6 3/4 Dia. of screw 9'-3" Pitch of Screw 9'-6" No. of Blades 4 State whether moveable no Total surface 28 1/4 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 3/8" Stroke 12" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/8" Stroke 12" Can one be overhauled while the other is at work yes
 No. of Donkey Engines one Sizes of Pumps Pearns Vertical D.A.R (6x3x6) No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 2 of 2" and ejector
 In-Holder, &c. 1 of 2" change cock in stokehold to tank
 No. of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump CP Is a separate Donkey Suction fitted in Engine room & size yes 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 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 yes
 What pipes are carried through the bunkers hold suction & tank suction How are they protected hold suction wood casings
 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 13 June 07 of Stern Tube 13 June Screw shaft and Propeller 23 July 07
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

OILERS, &c.—(Letter for record 5) Manufacturers of Steel J. Spence & Son
 Total Heating Surface of Boilers 1230 Is Forced Draft fitted no No. and Description of Boilers One, Cyl. Mult. S Ind.
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 18. 7. 07 No. of Certificate 7531
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 38 No. and Description of Safety Valves to each boiler Two D. Spring loaded Area of each valve 397 sq in Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12" Excl. Mean dia. of boilers 12-6 Length 10-6 Material of shell plates 5
 Thickness 1/32 Range of tensile strength 28-32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams d lap long. seams d strap Diameter of rivet holes in long. seams 1/16 Pitch of rivets 7/8 Lap of plates or width of butt straps 16
 Per centages of strength of longitudinal joint: rivets 89 plate 85 Working pressure of shell by rules 182 Size of manhole in shell 16 x 12
 Size of compensating ring 7 x 1 1/2 No. and Description of Furnaces in each boiler 2 Plain Material S Outside diameter 43
 Length of plain part: top 7 3/4 bottom 7 1/2 Thickness of plates: crown 49 bottom 64 Description of longitudinal joint Weld No. of strengthening rings 42
 Working pressure of furnace by the rules 182 Combustion chamber plates: Material S Thickness: Sides 5/8 Back 2 1/32 Top 5/8 Bottom 15/16
 Pitch of stays to ditto: Sides 8 x 9 Back 9 x 8 1/2 Top 8 1/2 x 8 If stays are fitted with nuts or riveted heads nut Working pressure by rules 186
 Material of stays S Diameter at smallest part 1 7/8 Area supported by each stay 76-5 Working pressure by rules 180 End plates in steam space: Material S Thickness 17/16 Pitch of stays 16 x 17 1/2 How are stays secured d h + w Working pressure by rules 190 Material of stays S
 Diameter at smallest part 5-05 Area supported by each stay 280 Working pressure by rules 184 Material of Front plates at bottom S
 Thickness 1 Material of Lower back plate S Thickness 15/16 Greatest pitch of stays as per plan Working pressure of plate by rules 180
 Diameter of tubes 3 1/2 Pitch of tubes 4 7/8 x 5 Material of tube plates S Thickness: Front 1 Back 3/4 Mean pitch of stays 9 3/4 x 10
 Pitch across wide water spaces 14 Working pressures by rules 182 Girders to Chamber tops: Material S Depth, and thickness of girder at centre 9 x 13/4 Length as per rule 33 Distance apart 8 Number and pitch of stays in each 3-8 1/2
 Working pressure by rules 217 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 —

Letter 13/8/07

Lloyd's Register Foundation

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 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 _____ 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 and nuts two bottom end bolts and nuts two main bearing bolts and nuts, spare coupling bolts and nuts. Spare feed Bilge pump Valves assorted iron bolts and nuts (share propeller)*

The foregoing is a correct description,

Manufacturer.

For

ROBERT STEPHENSON & CO., LIMITED

M. H. Robinson
 MANAGING DIRECTOR

Dates of Survey while building
 During progress of work in shops - - - ENA: 1907 June 7, 20, July 2, 11, 18, 22, 23, 25, 27, 29 Aug 2
 During erection on board vessel - - - B.L.R. 1907 Apr. 26, June 11, July 1, 15, 18
 Total No. of visits 18

Is the approved plan of main boiler forwarded herewith *no*
 retained for duplicate donkey " " "

Dates of Examination of principal parts—Cylinders 8. 7. 07 Slides 16 7. 07 Covers 16 7. 07 Pistons 7. 5. 07 Rods 7. 5. 07
 Connecting rods 7. 5. 07 Crank shaft 8. 7. 07 Thrust shaft 8. 7. 07 Tunnel shafts ✓ Screw shaft 7. 5. 07 Propeller 2. 7. 07
 Stern tube 7 June 07 Steam pipes tested 18 July 07 Engine and boiler seatings 22. 7. 07 Engines holding down bolts 23 July 07
 Completion of pumping arrangements 1 August 07. Boilers fixed 22. 7. 07 Engines tried under steam 27 July 07
 Main boiler safety valves adjusted 27 July 07 Thickness of adjusting washers *5/16" P.V.R. 3/2"*
 Material of Crank shaft *Steel* Identification Mark on Do. *1836AT6* Material of Thrust shaft *Iron* Identification Mark on Do. *1836AT6*
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *2 7* Identification Marks on Do. *1836AT6*
 Material of Steam Pipes *Copper* Test pressure *360 lb²*

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

*The material & workmanship is good.
 The Machinery has been built under special survey & is eligible in my opinion for classification & the record. I.M.C. 8 - 07*

It is submitted that this vessel is eligible for THE RECORD. *+ LMC 8-07*

J.H.R.
13/8/07
J.S.
13.8.07

The amount of Entry Fee.. £ / : : : When applied for,
 Special £ 10 : 13 : - 7 AUG 1907
 Donkey Boiler Fee £ : : : :
 Travelling Expenses (if any) £ : : : : When received,
 17.8.07

John H. Heck & Leonard Hallcross
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 16 AUG 1907

Assigned

+ LMC 8-07

MACHINERY CERTIFICATE WRITTEN.



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Certificate (if required) to be sent to the space for Committee's Minute.