

REPORT ON MACHINERY.

No. 52553

Port of Newcastle

TUES. 24 SEP 1907

Received at London Office

19

No. in Survey held at Newcastle
Reg. Book.Date, first Survey June 19Last Survey 20th Sep 1907

on the

45 Australia(Number of Visits 102)

Master

SchmidtBuilt at NewcastleBy whom built Hawthorn Leslie & Co.Gross 4009Net 2575When built 1904Engines made at WallsendBy whom made Wallsend Shipbuilding Co. Ltd.when made 1904Boilers made at "By whom made "when made 1904

Registered Horse Power

Owners W.R. LundgrenPort belonging to GöteborgNom. Horse Power as per Section 28 435Is Refrigerating Machinery fitted for cargo purposes noIs Electric Light fitted yesENGINES, &c.—Description of Engines TripleNo. of Cylinders 3 14.8 No. of Cranks 3Dia. of Cylinders 27 45 74 Length of Stroke 48 Revs. per minute 65Dia. of Screw shaft 15 Material of SIs 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 no

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 yesLength of stern bush 5.4Dia. of Tunnel shaft 13.37 as per rule 13.37 Dia. of Crank shaft journals 14.03 as per rule 14.03Dia. of Crank pin 14.4 Size of Crank webs 20.5 x 9.5 Dia. of thrust shaft undercollars 14.4 Dia. of screw 18.8 Pitch of Screw 18.8No. of Blades 4 State whether moveable no Total surface 96 sqNo. of Feed pumps 2 Diameter of ditto 4 Stroke 2.4Can one be overhauled while the other is at work yesNo. of Bilge pumps 2 Diameter of ditto 4.2 Stroke 2.4Can one be overhauled while the other is at work yesNo. of Donkey Engines 3 Sizes of Pumps 7.5 x 10.4 x 10, 7.5 x 5 x 6, 4.5 x 5 x 6

and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 of 32"In Holds, &c. 2 of 32" in eachNo. of Bilge Injections 1 sizes 7.2 Connected to condenser, or to circulating pump C.D.Is a separate Donkey Suction fitted in Engine room & size 32"Are all the bilge suction pipes fitted with roses yesAre the roses in Engine room always accessible yesAre the sluices on Engine room bulkheads always accessible yesAre all connections with the sea direct on the skin of the ship yesAre they Valves or Cocks bothAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yesAre 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 yesAre the Blow Off Cocks fitted with a spigot and brass covering plate yesWhat pipes are carried through the bunkers noneHow are they protected noAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesDates of examination of completion of fitting of Sea Connections 8 Aug of Stern Tube 8th Aug Screw shaft and Propeller 8th AugIs the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platformBOILERS, &c.—(Letter for record 3)Manufacturers of Steel Spencer & Sons & Co.Total Heating Surface of Boilers 5620 Is Forced Draft fitted yes No. and Description of Boilers 2 Std.Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 1.8.07 No. of Certificate 7537Can each boiler be worked separately yesArea of fire grate in each boiler 65 sq

No. and Description of Safety Valves to

each boiler 2 SpringArea of each valve 9.6Pressure to which they are adjusted 185Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 20Ex Mean dia. of boilers 16.3 Length 11.9 Material of shell plates SThickness 1.4 Range of tensile strength 29,33Are the shell plates welded or flanged yes Descrip. of riveting: cir. seams 77 laplong. seams 7. butts Diameter of rivet holes in long. seams 1.76 Pitch of rivets 9.8 Imp of plates or width of butt straps 19.2Per centages of strength of longitudinal joint 88.2Working pressure of shell by rules 182.95 Size of manhole in shell 16 x 12Size of compensating ring 4.5 No. and Description of Furnaces in each boiler 3 Depth Material S Outside diameter 4.28Length of plain part top Thickness of plates bottom 7.19 Description of longitudinal joint weld No. of strengthening rings 1Working pressure of furnace by the rules 186 Combustion chamber plates: Material S Thickness: Sides 7/16 Back 7/16 Top 7/16 Bottom 1.32Pitch of stays to ditto: Sides 8.4 x 10.2 Back 9.10 Top 9.3 x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181Material of stays S Diameter at smallest part 1.6 Area supported by each stay 902 Working pressure by rules 181 End plates in steam space: SMaterial S Thickness 1.32 Pitch of stays 22.8 x 19.6 How are stays secured 2 nuts Working pressure by rules 181 Material of stays SDiameter at smallest part 3.28 Area supported by each stay 144.75 Working pressure by rules 188 Material of Front plates at bottom SThickness 1 Material of Lower back plate S Thickness 7/16 Greatest pitch of stays 14.5 Working pressure of plate by rules 203Diameter of tubes 2.2 Pitch of tubes 3.3 x 3.3 Material of tube plates S Thickness: Front 1 Back 3/4 Mean pitch of stays 7.2Pitch across wide water spaces 13 Working pressures by rules 360 Girders to Chamber tops: Material S Depth andthickness of girder at centre 8.2 x 12 Length as per rule 31.5 Distance apart 9 Number and pitch of stays in each 20 x 9.2Working pressure by rules 185 Superheater or Steam chest; how connected to boiler no Can the superheater be shut off and the boiler workedseparately no Diameter no Length no Thickness of shell plates no Material no Description of longitudinal joint no Diam. of rivetholes no Pitch of rivets no Working pressure of shell by rules no Diameter of flue no Material of flue plates no Thickness noIf stiffened with rings no Distance between rings no Working pressure by rules no End plates: Thickness no How stayed noWorking pressure of end plates no Area of safety valves to superheater no Are they fitted with easing gear noLloyd'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:— 1 Set connecting rod bolts nuts. 1 Set main bearing bolts nuts. 1 Set coupling bolts nuts. 1 Set feed & bilge pump valves. 1 Set propeller blades. Shaft nuts bolts & assorted iron.

The foregoing is a correct description.

FOR THE WALLINGFORD & ENGINEERING CO., LIMITED.
 M. Murray Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 1907 June 19 July 21 8. 11. 15. 16. 24 Aug 28 9. 12. 19 26. 28 Sep. 29. 11. 12. 14. 17. 20
 { During erection on board vessel - - -
 Total No. of visits 22.

Is the approved plan of main boiler forwarded herewith yes
 " " " donkey " " " yes.

Dates of Examination of principal parts—Cylinders 19.6.07 Slides 19.6.07 Covers 19.6.07 Pistons 19.6.07 Rods 11.7.07
 Connecting rods 11.7.07 Crank shaft 12.8.07 Thrust shaft 12.8.07 Tunnel shafts 12.8.07 Screw shaft 12.8.07 Propeller 12.8.07
 Stern tube 16.7.07 Steam pipes tested 1 July Engine and boiler seatings 9.9.07 Engines holding down bolts 9.9.07
 Completion of pumping arrangements 20th Sep. Boilers fixed 11.9.07. Engines tried under steam 14.9.07.
 Main boiler safety valves adjusted 14.9.07. Thickness of adjusting washers SBf 5/16. 0.11. 5/16. PBf 4/32 aft. 5/16.
 Material of Crank shaft S Identification Mark on Do. B JTF Material of Thrust shaft S Identification Mark on Do. B JTF
 Material of Tunnel shafts S Identification Marks on Do. B JTF Material of Screw shafts B Identification Marks on Do. B JTF
 Material of Steam Pipes W. I. Test pressure 540 lbs.

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

Machinery & Boilers built under special survey. Material & workmanship good and efficient; engines & boilers examined under full steam & found satisfactory. In my opinion this vessel is eligible for the record of L.M.C. 9.07.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.07

Elec. Light FD
 J. R. R.

24.9.07

24.9.07

The amount of Entry Fee.. £ 3 : : When applied for.
 Special £ 41 : 15 : 21.9.07
 Donkey Boiler Fee £ : : :
 Travelling Expenses (if any) £ : : : 26.9.10

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

Committee's Minute

TUES. 24 SEP 1907

Assigned

MACHINE CERTIFICATE
 WRITTEN.



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 Foundation