

REPORT ON MACHINERY.

No. 58982

Date of writing Report 19 When handed in at Local Office 24 AUG 1910 Port of NEWCASTLE ON TYNE
No. in Survey held at South Shields Date, First Survey 17th Mar Last Survey 19th Aug 1910
Reg. Book. 18 Sub on the Machinery of the Twin Screw Steamer Abeille No 5
Master Built at S. Shields By whom built J. P. Kennoldson & Sons Tons Gross 200 Net 5
Engines made at South Shields By whom made J. P. Kennoldson & Sons When built 1910
Boilers made at " By whom made J. T. Catteringham & Co when made 1910
Registered Horse Power Owners Soc. de Remorq. de Abeilles Port belonging to Home
Nom. Horse Power as per Section 28 109 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines

Dia. of Cylinders 16" & 34" Length of Stroke 22" Revs. per minute 113 No. of Cylinders 2+2=4 No. of Cranks 2
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 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 29"
Dia. of Tunnel shaft as per rule 6.33" as fitted 6 1/2" Dia. of Crank shaft journals as per rule 6.66" as fitted 6 3/4" Dia. of Crank pin 6 3/4" Size of Crank webs 4 1/4" x 12 1/2" Dia. of thrust shaft under collars 6 3/4" Dia. of screw 4-9" Pitch of Screw 12-6" No. of Blades 4 State whether moveable no Total surface 20.85
No. of Feed pumps 1 Diameter of ditto 3" Stroke 11" Can one be overhauled while the other is at work
No. of Bilge pumps 1 Diameter of ditto 3" Stroke 11" Can one be overhauled while the other is at work
No. of Donkey Engines 2 Sizes of Pumps 5 1/4" x 4 3/4" x 5" & 5" x 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 2 Two 2" In Holds, &c. one 2" in after hold, one 2" in fore hold and one 2" in stokehold
No. of Bilge Injections 2 sizes 3" Connected to condenser, or to circulating pump Yes 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 Yes
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 Main and donkey steam How are they protected iron 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 22/7/10 of Stern Tube 22/7/10 Screw shaft and Propeller 8/8/10
Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

See Boiler report

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler
Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork 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
bottom 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

2210-412200-202200

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 _____ 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:— 2 propellers, 1 propeller shaft, 2 top end, and 2 bottom end bolts, 2 main bearing bolts, 1 set of feed and bilge pump valves, 20 condenser tubes, 12 boiler tubes, a quantity of assorted bolts & nuts & iron various sizes. The foregoing is a correct description, 1 set of coupling bolts.

J.P. Remoldson & Sons Manufacturer of Engines

Dates of Survey while building { During progress of work in shops -- } 1910 Mar. 17. Apr. 1. 6. 14. 19. 26. 29. May 3. 11. 23. 30. Jun. 7. 20. 21. Jul. 4. 13. 18. 21. 22. 27. 28. 29.
 { During erection on board vessel --- } Aug. 8. 17. 18. 19.
 Total No. of visits 26

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

Dates of Examination of principal parts—Cylinders 19/29/4/10 Slides 11/5/10 Covers 11/5/10 Pistons 11/23/5/10 Rods 23/5/10
 Connecting rods 23/5/10 Crank shaft 6/4/10 Thrust shaft 30/5/7/6/10 Tunnel shafts 30/5/7/6/10 Screw shaft 21/7/10 Propeller 13/7/10
 Stern tube 13/7/10 Steam pipes tested 8/8/10 Engine and boiler seatings 4/8/10 Engines holding down bolts 27/7/10
 Completion of pumping arrangements 17/8/10 Boilers fixed 27/7/10 Engines tried under steam 17/8/10
 Main boiler safety valves adjusted 17/8/10 Thickness of adjusting washers port 1/16" star 1/16"
 Material of Crank shaft Iron Identification Mark on Do. 4444N 27/7/10 Material of Thrust shaft Iron Identification Mark on Do. 4444N 27/7/10
 Material of Tunnel shafts Iron Identification Marks on Do. 4444N 27/7/10 Material of Screw shafts Iron Identification Marks on Do. 4444N 27/7/10
 Material of Steam Pipes Seamless copper Test pressure 240 lbs.

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

The machinery of this vessel has been built under special survey, the materials used are good, and the workmanship is satisfactory, the safety valves have been adjusted and the engines tried under steam, in my opinion the machinery is eligible to have the record + L.M.C. 8.10.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 8.10

J.M. 29/8/10 J.R.S.

The amount of Entry Fee .. £ 2: " :
 Special .. £ 16. 7. 0
 Donkey Boiler Fee .. £ 1: 7. 0
 Travelling Expenses (if any) £ : :
 26 AUG 1910

When applied for, 26 AUG 1910

When received, 26.8.10

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

Committee's Minute

Assigned

+ L.M.C. 8.10



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NEWCASTLE ON TYNE.

Certificate (if required) to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)