

REPORT ON MACHINERY.

No. 57699

Port of NEWCASTLE ON TYNE.

Received at London Office

FEB 3 DEC 1909

No. in Survey held at South Shields Date, first Survey 7th Sept 1909 Last Survey 30th Nov 1909
Reg. Book. 44 upon the Steel Screw Tug Abeille N. 10 (Number of Visits 17)
Master Built at South Shields By whom built J. P. Kennoldson & Sons When built 1909
Engines made at South Shields By whom made J. P. Kennoldson & Sons when made 1909
Boilers made at " By whom made J. P. Ettringham & Co. when made 1909
Registered Horse Power Owners Soc. de Remorq. Les Abeilles Port belonging to Floure
Nom. Horse Power as per Section 28 106 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple expansion surface condensing of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 15 1/2", 25" & 41" Length of Stroke 27 Revs. per minute 106 Dia. of Screw shaft 8 1/2" Material of Iron
Is the screw shaft fitted with a continuous liner the whole length of the stern tube none 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 36"
Dia. of Tunnel shaft 7 1/2" Dia. of Crank shaft journals 7 1/2" Dia. of Crank pin 8" Size of Crank webs 4 1/4" x 1 1/4" Dia. of thrust shaft under
collars 8" Dia. of screw 9'-6" Pitch of Screw 14'-0" No. of Blades 4 State whether moveable no Total surface 30.65
No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 13 1/2" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 2 5/8" Stroke 13 1/2" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 2 Sizes of Pumps Hand 5" x 3 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room one 2" In Holds, &c. two 1 forward 2" & 1 aft 2"

No. of Bilge Injections 1 sizes 4" 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 none
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 & donkey steam pipes How are they protected Wrought 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 12/11/09 of Stern Tube 12/11/09 Screw shaft and Propeller 12/11/09
Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted no 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 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 Thickness of plates 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 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 :— 2 top end & 2 bottom end bolts & nuts, 2 main bearing bolts, 1 set coupling bolts, 1 set of feed & bilge pump valves, 1 set of piston springs, assorted bolts & nuts & assorted iron, 1 spare propeller shaft monkey 2 donkey pump valves and a number of condenser & boiler tubes.

The foregoing is a correct description,

J. Remondron & Sons Manufacturer. of Engines

Dates of Survey while building	During progress of work in shops - - -	1909 Sep. 7. 13. 15. 24. 30. Oct. 11. 15. 20. 27. 30. Nov. 2. 8. 12. 19. 25. 26. 30
	During erection on board vessel - - -	
Total No. of visits	17.	

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

Dates of Examination of principal parts—Cylinders 24/9/09 Slides 24/9/09 Covers 24/9/09 Pistons 24/9/09 Rods 30/9/09
 Connecting rods 30/9/09 Crank shaft 20/27/10/09 Thrust shaft 20/27/10/09 Tunnel shafts 20/27/10/09 Screw shaft 20/27/10/09 Propeller 30/9/09
 Stern tube 12/11/09 Steam pipes tested Engine and boiler seatings 19/11/09 Engines holding down bolts 30/11/09
 Completion of pumping arrangements 30/11/09 Boilers fixed 19/11/09 Engines tried under steam 30/11/09
 Main boiler safety valves adjusted 30/11/09 Thickness of adjusting washers 1st 9/32" 2nd 11/32"
 Material of Crank shaft steel Identification Mark on Do. 2345N A.F.C. Material of Thrust shaft Iron Identification Mark on Do. 6905N W.C.
 Material of Tunnel shafts Iron Identification Marks on Do. 6905 W.C. Material of Screw shafts Iron Identification Marks on Do. 6793N 2/11/09 C.C.
 Material of Steam Pipes Seamless copper 19.25 & 26/11/09 Test pressure 360 lbs

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

The above engines have been built under special survey the materials are good, and the workmanship satisfactory & in my opinion is eligible to have the notation + L.M.C. 11.09.

20th submitted that this vessel is eligible for THE RECORD + LMC 11.09

J.R.B. 3/12/09

The amount of Entry Fee..	£ 2 : 0 : 0	When applied for, 2 - DEC 1909
Special	£ 15 : 18 : 0	
Donkey Boiler Fee	£ : : 0	When received, 4. 12. 09
Travelling Expenses (if any) £	: : 0	

Committee's Minute
 Assigned + Lmc 11.09
 FRI. 3 DEC 1909
 Charles Cooper
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

