

REPORT ON MACHINERY.

No. 62072

Received at London Office SAT. APR. 13. 1912

Date of writing Report 19 When handed in at Local Office 10 Port of **NEWCASTLE-ON-TYNE**
No. in Survey held at *Newcastle* Date, First Survey *30th Oct. 1911* Last Survey *12th Mar 1912*
Reg. Book. *55* on the *Machinery of the S.S. Elvet* (Number of Vials 28)
Master Built at *Newcastle* By whom built *W. Dobson & Co.* Tons { Gross 1287
Net 673
When built 1912
Engines made at *Newcastle* By whom made *North Eastern Marine Eng. Co.* when made 1912
Boilers made at *Gunsulbourn* By whom made " " when made 1912
Registered Horse Power Owners *Sharp & Co.* Port belonging to *N. Shields*
Nom. Horse Power as per Section 28 201 Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engines *Triple* No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders *19", 31" & 51"* Length of Stroke *36"* Revs. per minute Dia. of Screw shaft as per rule *11.439"* Material of *iron*
as fitted *12"* screw shaft
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 *4'-5"*
Dia. of Tunnel shaft as per rule *9.58"* Dia. of Crank shaft journals as per rule *10.06"* Dia. of Crank pin *10 1/4"* Size of Crank webs *20 1/4" x 6 1/4"* Dia. of thrust shaft under
collars *10 1/4"* Dia. of screw *13-6"* Pitch of Screw *14-6"* No. of Blades 4 State whether moveable *no* Total surface *56 sq ft*
No. of Feed pumps 2 Diameter of ditto 3" Stroke 20" Can one be overhauled while the other is at work *Yes*
No. of Bilge pumps 2 Diameter of ditto *3 1/2"* Stroke 20" Can one be overhauled while the other is at work *Yes*
No. of Donkey Engines 2 Sizes of Pumps *9" x 11" x 10", 7 1/4" x 9" x 10"* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 3 of 2" In Holds, &c. 2 of 2" in each hold and
1 of 2 1/4" in tunnel well
No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump *pump* Is a separate Donkey Suction fitted in Engine room & size *Yes 2 1/2"*
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 *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 *2/2/12* of Stern Tube *2/2/12* Screw shaft and Propeller *14/2/12*
Is the Screw Shaft Tunnel watertight *Yes* Is it fitted with a watertight door *Yes* worked from *Upper deck*

BOILERS, &c.—(Letter for record) Manufacturers of Steel *See report on boiler attached*

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
plate. 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

14218-0074

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:— 1 set of top end & 1 set of bottom end bolts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts nuts, and iron, 1 spare propeller & minor parts.

The foregoing is a correct description,

NORTH EASTERN MARINE ENGINEERING CO., LTD.

Manufacturer.

S. T. Harrison

Dates of Survey while building	During progress of work in shops—	Oct. 30. Nov. 9. 20. 29. Dec. 1. 7. 8. 11. 12. 14. 27. 28	Secretary. <i>[Signature]</i>	26. 31. Jan. 1. 2. 9. 12. 14
	During erection on board vessel—	19. 21. 27. Mar. 12.		
	Total No. of visits	28		

Is the approved plan of main boiler forwarded herewith *[initials]*

Dates of Examination of principal parts—Cylinders 14/12/11 Slides 19/1/11 Covers 1/12/11 Pistons 27/12/11 Rods 18/1/12

Connecting rods 18/1/12 Crank shaft 9/12/11 Thrust shaft 12/12/11 Tunnel shafts 7/12/11 Screw shaft 29/11/11 Propeller 22/1/12

Stern tube 22/1/12 Steam pipes tested 19/2/12 Engine and boiler seatings 12/2/12 Engines holding down bolts 16/2/12

Completion of pumping arrangements 21/2/12 Boilers fixed 16/2/12 Engines tried under steam 21/2/12

Main boiler safety valves adjusted 21/2/12 Thickness of adjusting washers $PF \frac{7}{16} A \frac{5}{16} SF \frac{3}{8} A \frac{7}{16}$

Material of Crank shaft *Steel* Identification Mark on Do. 9/1/12 *Steel* Identification Mark on Do. 14/12/11

Material of Tunnel shafts *Steel* Identification Marks on Do. 11/12/11 *Steel* Identification Marks on Do. 9/1/12

Material of Screw shafts *Iron* Identification Marks on Do. 9/1/12

Material of Steam Pipes *Solid drawn copper* Test pressure 360 lbs

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

The machinery of this vessel has been built under survey the materials used are good, and the workmanship is satisfactory, it has been properly fitted on board and secured, and the engines have been tried under steam. In my opinion the vessel is eligible to have record of L.M.C. 3.12.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.12.

J.W.D. 13/4/12

The amount of Entry Fee .. £ 2 :	When applied for, MAR 30 1912
Special £ 30 : 1 :	When received, APR 4 1912
Donkey Boiler Fee £ 10 :	
Travelling Expenses (if any) £ 22 : 10 :	

Committee's Minute

TUE. APR. 16. 1912

Assigned

L.M.C. 3.12

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



© 2019

Lloyd's Register Foundation

NEWCASTLE ON TYNE

Certificate (if required) to be sent to

(The Surveyor is requested not to write on or below the space for Committee's Minute.)