

REPORT ON MACHINERY.

No. 60358

Received at London Office

WED. 14 JUN 1911
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NEWCASTLE ON TYNE

Date of writing Report 10 When handed in at Local Office MAY 24 1911 Port of NEWCASTLE ON TYNE

No. in Survey held at N. Shields Date, First Survey 15th March Last Survey 12th May 1911
 Reg. Book. 56 on the Machinery of the S.S. "Nancy Hague" (Number of Visits 16th) Tons } Gross 295
 Master Smiths Dock Co. Ltd Built at Middlesbrough By whom built Smiths Dock Co. Ltd When built 1911
 Engines made at N. Shields By whom made Shields Engineering Co. Ltd when made 1911
 Boilers made at Middlesbrough By whom made Richardson Westgarth when made 1911
 Registered Horse Power 94 Owners New Dock Steam Traction Co. Port belonging to Fleetwood
 Nom. Horse Power as per Section 28 91 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 13 1/4", 23" & 37" Length of Stroke 27" Revs. per minute 110 Dia. of Screw shaft 7.87" as per rule 7.87" as fitted 8 1/8" Material of screw shaft Iron

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 Yes 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 Yes Length of stern bush 39"

Dia. of Tunnel shaft 6.94" as per rule 6.94" as fitted 7" Dia. of Crank shaft journals 7.287" as per rule 7.287" as fitted 7 1/2" Dia. of Crank pin 7 1/2" Size of Crank webs 4 1/2" x 11 1/4" Dia. of thrust shaft under collars 7 1/2" Dia. of screw 9-9" Pitch of Screw 10-6" No. of Blades 4 State whether moveable solid Total surface 31.5 sq ft

No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 13 1/2" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 13 1/2" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 6x6x6" & 6x4x6" No. and size of Suctions connected to both Bilge and Donkey pumps 2
 In Engine Room two 2" In Holds, &c. one 2"

No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump none 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 none How are they protected Yes
 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 12-4-11 of Stern Tube 12-4-11 Screw shaft and Propeller 12-4-11

Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door Yes worked from Yes

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

Total Heating Surface of Boilers 1599 sq ft Is Forced Draft fitted no No. and Description of Boilers 1 Single ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 13/4/11 No. of Certificate 4625
 Can each boiler be worked separately Yes Area of fire grate in each boiler 52.5 sq ft No. and Description of Safety Valves to each boiler 2 direct spring Area of each valve 4.9 sq in Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 9 1/2" Mean dia. of boilers 37" Length 12-4-11 Material of shell plates Iron
 Thickness 3/8" Range of tensile strength 45,000 lbs Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes
 long. seams Yes Diameter of rivet holes in long. seams 3/8" Pitch of rivets 2" Lap of plates or width of butt straps 1"
 Per centages of strength of longitudinal joint 85% rivets 85% Working pressure of shell by rules 180 lbs Size of manhole in shell 18"
 Size of compensating ring 18" No. and Description of Furnaces in each boiler 1 Material Iron Outside diameter 37"
 Length of plain part 12-4-11 top 12-4-11 bottom 12-4-11 Thickness of plates 3/8" crown 3/8" bottom 3/8" Description of longitudinal joint Butt No. of strengthening rings 1
 Working pressure of furnace by the rules 180 lbs Combustion chamber plates: Material Iron Thickness: Sides 3/8" Back 3/8" Top 3/8" Bottom 3/8"
 Pitch of stays to ditto: Sides 12" Back 12" Top 12" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 180 lbs End plates in steam space: Yes
 Material of stays Iron Diameter at smallest part 1 1/2" Area supported by each stay 12" Working pressure by rules 180 lbs Material of stays Iron
 Material Iron Thickness 3/8" Pitch of stays 12" How are stays secured By nuts Working pressure by rules 180 lbs Material of Front plates at bottom Iron
 Diameter at smallest part 1 1/2" Area supported by each stay 12" Working pressure by rules 180 lbs Material of Front plates at bottom Iron
 Thickness 3/8" Material of Lower back plate Iron Thickness 3/8" Greatest pitch of stays 12" Working pressure of plate by rules 180 lbs
 Diameter of tubes 1 1/2" Pitch of tubes 12" Material of tube plates Iron Thickness: Front 3/8" Back 3/8" Mean pitch of stays 12"
 Pitch across wide water spaces 12" Working pressures by rules 180 lbs Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 12" Length as per rule 12" Distance apart 12" Number and pitch of stays in each 12"
 Working pressure by rules 180 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked separately Yes Diameter 12" Length 12" Thickness of shell plates 3/8" Material Iron Description of longitudinal joint Butt Diam. of rivet holes 3/8" Pitch of rivets 2" Working pressure of shell by rules 180 lbs Diameter of flue 12" Material of flue plates Iron Thickness 3/8"
 If stiffened with rings Yes Distance between rings 12" Working pressure by rules 180 lbs End plates: Thickness 3/8" How stayed By nuts
 Working pressure of end plates 180 lbs Area of safety valves to superheater 180 lbs Are they fitted with easing gear Yes



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 and bilge pump valves, a quantity of assorted bolts nuts & iron.

The foregoing is a correct description,
Jno. Blakey Manufacturer.

FOR THE SHIELDS ENGINEERING & DOCK CO., LIMITED

1911
 Dates of Survey while building: During progress of work in shops -- Mar. 15, 22, 24, 29. Apr. 4, 5, 6, 11, 20, 25, 27, 29. May 6, 10, 11, 12.
 During erection on board vessel --- Mar. - Apr. 12
 Total No. of visits 16 0 1

Is the approved plan of main boiler forwarded herewith (with memo) " " " donkey " " "

Dates of Examination of principal parts—Cylinders 24/3-4/4/11 Slides 29/4/11 Covers 20/4/11 Pistons 20/4 & 25/4/11 Rods 20 & 25/4/11
 Connecting rods 20 & 25/4/11 Crank shaft 22/3/11 Thrust shaft 29/4/11 Tunnel shafts ✓ Screw shaft 4/4/11 Propeller 4/4/11
 Stern tube 5/4/11 Steam pipes tested 10/5/11 Engine and boiler seatings 29/4/11 Engines holding down bolts 11/5/11
 Completion of pumping arrangements 11/5/11 Boilers fixed 6/5/11 Engines tried under steam 12/5/11
 Main boiler safety valves adjusted 12/5/11 Thickness of adjusting washers F 3/8" A 1/32"
 Material of Crank shaft ~~Steel~~ Identification Mark on Do. 176
E.M.S.
27/12/11 Material of Thrust shaft ~~Steel~~ Identification Mark on Do. 176
E.M.S.
27/12/11
 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts ~~Iron~~ Identification Marks on Do. 176
E.M.S.
27/12/11
 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 special survey, the materials used are good, and the workmanship is satisfactory, the engines and boilers have been properly fitted on board and secured, the safety valves have been adjusted, and the engines tried under steam. In my opinion the machinery is eligible for record of L.M.C. 5.11*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 5.11.

JWD
 15/6/11

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

The amount of Entry Fee .. £	1 :	When applied for,	MAY 24 1911
Special .. £	8 6 :	When received,	5-7-11
Donkey Boiler Fee .. £	:		
Travelling Expenses (if any) £	:		

Committee's Minute
 Assigned + L.M.C. 5.11



Certificate (if required) to be sent to NEWCASTLE ON TYNE.

The Surveyors are requested not to write on or below the space for Committee's Minute.