

REPORT ON MACHINERY.

Mdt. No. 1566
W. H. P. 9765

Port of Middlesbrough - Tees.

TUES. 27 AUG 1895

Received at London Office

held at Stockton-on-Tees

Date, first Survey 5th March

Last Survey 16th August 1895

(Number of Visits 41)

(2 Whitby visits 5 23/7/95)

Screw Steamer "Eddie"

Gross 2652
Tons Net 1686

Builder Whitby

By whom built J. Turnbull & Son

When built 1895

By whom made Blair & Co. Ltd.

when made 1895

By whom made Blair & Co. Ltd.

when made 1895

Power 224

Owners J. Turnbull & Son

Port belonging to Whitby

Power as per Section 28 224

Manufacturers H.P. 180

8c.— Description of Engines Triplic expansion No. of Cylinders Three
Cylinders 22 1/2" - 36 1/2" - 60" Length of Stroke 39" Revolutions per minute 60 Diameter of Screw shaft as per rule 10 1/2"
Diameter of Crank shaft journals 11 1/2" Diameter of Crank pin 12 1/2" Size of Crank webs 19 1/4" x 8 1/2" built
Pitch of screw 16' 0" No. of blades 4 State whether moveable No Total surface 71 Sq. ft.
Diameter of ditto 3' Stroke 28" Can one be overhauled while the other is at work Yes
Diameter of ditto 4 1/2" Stroke 28" Can one be overhauled while the other is at work Yes
Engines Two Sizes of Pumps (4' x 8') (7 1/2' x 9') No. and size of Suctions connected to both Bilge and Donkey pumps
In Holds, &c. Fore Hold: Two - 3" dia. Main Hold: Two - 3" dia. After Hold: Two - 3" dia. Aftermost Hold: Two - 3" dia. Tunnel Well: One - 2 1/2" dia.
Connected to condenser, or to circulating pump C.P. Is a separate donkey suction fitted in Engine room & size Yes: 4" dia.
Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None
Are they Valves or Cocks Both
Are the discharge pipes above or below the deep water line Above
Are the blow off cocks fitted with a spigot and brass covering plate Yes
How are they protected ✓
Are the cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes
Are the suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes
Is the screw shaft tunnel watertight Yes
Is the screw shaft tunnel watertight Yes
worked from Top platform in Engine room.

S, &c.— (Letter for record S.P.) Total Heating Surface of Boilers 5358 Sq. ft.
Description of Boilers Two: Cylindrical - Single Ended Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs
Can each boiler be worked separately Yes Area of fire grate in each boiler about 49' No. and Description of safety valves to Two: Direct Spring
Area of each valve 7.06" Pressure to which they are adjusted 165 lbs Are they fitted Yes
Smallest distance between boilers or uptakes and bunkers or woodwork about 24" Mean diameter of boilers 13' 10 1/4"
Material of shell plates Steel Thickness 1 1/2" Description of riveting: circum. seams Lap double long. seams Butt Straps
Pitch of rivets 8" Lap of plates or width of butt straps 1' 5 1/2" x 1" thick
Working pressure of shell by rules 168 lbs Size of manhole in shell 16" x 12"
No. and Description of Furnaces in each boiler 3: Corrugated Material Steel Outside diameter 41"
Thickness of plates 1 1/2" Description of longitudinal joint Welded No. of strengthening rings ✓
Combustion chamber plates: Material Steel Thickness: Sides 3/8" Back 3/8" Top 3/8" Bottom 3/8"
If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 192 lbs
Diameter at smallest part 1 1/4" Area supported by each stay 56" Working pressure by rules 193 lbs End plates in steam space: Steel Thickness 1" Pitch of stays 16 1/2" x 15" How are stays secured By nuts & washers Working pressure by rules 149 lbs Material of stays Steel
Area supported by each stay 243.7" Working pressure by rules 181 lbs Material of Front plates at bottom Steel
Greatest pitch of stays 11 1/4" Working pressure of plate by rules 250 lbs
Material of tube plates Steel Thickness: Front 1" Back 3/8" Mean pitch of stays 9 1/8"
Working pressures by rules 189 lbs 284 lbs Girders to Chamber tops: Material Steel Depth and 1 1/4" x 1 1/8" Length as per rule 24 1/2" Distance apart 4 1/2" Number and pitch of Stays in each 3: 4 1/2"
Superheater or Steam chest; None Can the superheater be shut off and the boiler worked Yes
Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
Distance between rings Working pressure by rules End plates: Thickness How stayed
Area of safety valves to superheater Are they fitted with easing gear

DONKEY BOILER— Description *Incremental patent*
 Made at *Stockton* By whom made *Riley Bros.* When made *2/8/95* Where fixed *In Stoke Newell*
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *1096* Fire grate area *22* ^{sq} Description of safety valves *Direct Spring*
 No. of safety valves *2* Area of each *5.94* Pressure to which they are adjusted *85 lbs* If fitted with easing gear *Yes* If steam from main boilers can
 enter the donkey boiler *No* Diameter of donkey boiler *6' 3"* Length *13' 6"* Material of shell plates *Steel* Thickness *7/16"*
 Description of riveting long seams *Lap Double rivet* Diameter of rivet holes *3/16"* Whether punched or drilled *Punched* Pitch of rivets *2 1/2"*
 Lap of plating *4 1/4"* Per centage of strength of joint ^{Rivets} *72* _{Plates} *41* Thickness of shell crown plates *7/16"* Radius of do. *3' 1 1/2"* No. of Stays to do. *None*
 Dia. of stays. *1* Diameter of furnace Top *4' 6"* Bottom *3' 4"* Length of furnace *2' 9"* Thickness of furnace plates *19/32"* Description of
 joint *Lap Single* Thickness of furnace crown plates *9/16"* Stayed by *Direct to 3 ft. radius* Working pressure of shell by rules *84 lbs*
 Working pressure of furnace by rules *88 lbs* Diameter of ^{tubes} uptake *3"* Thickness of ^{tubes} uptake plates *9/16"* Thickness of ^{conical plates} water tubes *5/8"* ^{1 1/2"} _{Stays}

SPARE GEAR. State the articles supplied:— *Propeller and Shaft, 2 main Bearing Bolts & nuts, 2 crank
 pin Bolts & nuts, 2 crosshead Bolts & nuts, 1 set Coupling Bolts & nuts, 1 set Feed & Bilge
 pump valves, 6 Air pump valves, 2 Cheek valves, 6 Boiler Tubes, 6 Junk Ring Bolts,
 Bolts, nuts and Iron of various sizes.*

The foregoing is a correct description,

FOR BLAIR & CO., LIMITED

Manufacturers of main Engines & Boilers.

W. Bonrie

SECRETARY

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

*The Engines and Boilers of this vessel have been built
 under Special Survey and the materials and workmanship
 are good. When completed they were examined under
 steam and found to work satisfactorily.*

*The Machinery throughout is now in good and
 efficient condition, and eligible in ^{my} opinion to
 have the notation of **L.M.C. 8, 95.** marked in the
 Society's Register Book.*

*It is submitted that
 this vessel is eligible for
 THE RECORD + L.M.C. 8, 95.*

W. Bonrie
27. 8. 95.

Cont

Certificate (if required) to be sent to

MACHINERY CERTIFICATE
 WRITTEN.

The amount of Entry Fee	£ 2 : -	When applied for,
Special	£ 31 : 4	23. 8. 95
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ 1 : 17 : 8	26. 8. 95

Wm. Austin & Richard Sturges
 Engineer Surveyors to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 30 AUG 1895

Assigned

+ L.M.C. 8, 95



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