

REPORT ON MACHINERY

Mid. No. 4394
New. No. 50079

Port of MIDDLESBROUGH-ON-TEES.

Received at London Office THUR 15 FEB 1906

No. in Survey held at Stockton & Date, first Survey 25th Sept. 1905 Last Survey Feb 7 1906
Reg. Book. (Number of Visits 21)

on the Steel S.S. "Medomsley" Tons { Gross 3048
Net 1934
Master G. Dobson Built at Blyth By whom built Blyth S.B. Co. Ltd When built 1906
Engines made at Stockton By whom made Polain & Co. Ltd when made 1906
Boilers made at Stockton By whom made Polain & Co. Ltd when made 1906
Registered Horse Power _____ Owners F. Carrick & Co Port belonging to Newcastle
Nom. Horse Power as per Section 28 289 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Direct acting Trip Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 24-40-65 Length of Stroke 42 Revs. per minute 57 Dia. of Screw shaft as per rule 3.5 Material of screw shaft W. 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 — 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 — Length of stern bush 5-1
Dia. of Tunnel shaft as per rule 11.8 Dia. of Crank shaft journals as per rule 12.4 Dia. of Crank pin 13.2 Size of Crank webs 20.4 x 8.2 Dia. of thrust shaft under
collars 13.2 Dia. of screw 17-0 Pitch of screw 17 feet No. of blades 4 State whether moveable No Total surface 78 sq
No. of Feed pumps 2 Diameter of ditto 3 Stroke 30 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 4.5 Stroke 30 Can one be overhauled while the other is at work Yes
No. of Donkey Engines Two Sizes of Pumps 9 x 10 Ballant. Feed 4 x 8 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Four 3" diameter In Holds, &c. No. 1 2 x 3 holds. Two of 3" dia
one 3" dia in well. Sub. See letter dated 17. 1. 06

No. of bilge injections 1 sizes 6.5 Connected to condenser, or to circulating pump — Is a separate donkey suction fitted in Engine room & size Yes 4"
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 —
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
When were stern tube, propeller, screw shaft, and all connections examined in dry dock New vessel Is the screw shaft tunnel watertight Yes
Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—No. of Certificate 3577 (Letter for record S) Total Heating Surface of Boilers 4345 sq Is forced draft fitted No
No. and Description of Boilers Two Cyl. Multitubular Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs
Date of test 20-12-05 Can each boiler be worked separately Yes Area of fire grate in each boiler 59 sq No. and Description of safety valves to
each boiler Two Spring Area of each valve 7.06 sq Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 20 Dia. of boilers 15-3 Length 10-6 Material of shell plates Steel
Thickness 1.7/16 Range of tensile strength 27/32 Are they welded or flanged No Descrip. of riveting: cir. seams 2 1/2 in long. seams 2 Butt Straps.
Diameter of rivet holes in long. seams 1.5/16 Pitch of rivets One row 9. Two 4.5 Lap of plates or width of butt straps 1-7.5
Per centages of strength of longitudinal joint rivets 85.1 Working pressure of shell by rules 186.8 lbs Size of manhole in shell 17 x 13
plate 85.4 Size of compensating ring 31-27-1.5/16 No. and Description of Furnaces in each boiler 3 Brown Impressed Material Steel Outside diameter 3-6.5/4
Length of plain part top 6-7.5 bottom — Thickness of plates crown 9/16 bottom — Description of longitudinal joint Welded No. of strengthening rings —
Working pressure of furnace by the rules 192 lbs Combustion chamber plates: Material Steel Thickness: Sides 11/16 Back 11/16 Top 11/16 Bottom 3/4
Pitch of stays to ditto: Sides 9.5/4 x 9 Back 9.5/2 x 9 Top 9.5/4 x 9.5/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 185 lbs
Material of stays Steel Diameter at smallest part 1.9/16 Area supported by each stay 87.8 sq Working pressure by rules 196.2 lbs End plates in steam space:
Material Steel Thickness 1.3/16 Pitch of stays 1.9 x 2.0 How are stays secured 2 x W Working pressure by rules 184 lbs Material of stays Steel
Diameter at smallest part 3 Area supported by each stay 380 sq Working pressure by rules 186 lbs Material of Front plates at bottom Steel
Thickness 1.5/32 Material of Lower back plate Steel Thickness 1.7/16 Greatest pitch of stays 18.5/2 x 9 Working pressure of plate by rules 184 lbs
Diameter of tubes 3.5/2 Pitch of tubes 4.5/4 x 4.7/8 Material of tube plates Steel Thickness: Front 1.7/32 Back 1.3/16 Mean pitch of stays 9.6/2
Pitch across wide water spaces 14 Working pressures by rules 195 lbs Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 7.5/4 x 1.5/2 Length as per rule 2.6/4 Distance apart 9.5/4 Number and pitch of Stays in each Two 9.5/2
Working pressure by rules 191 lbs Superheater or Steam chest; how connected to boiler None 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 —

DONKEY BOILER— No. _____ Description _____
 Made at _____ By whom made _____ Date of test _____ Where fixed _____
 Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
 No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ 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 _____ 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 _____ Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
 Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *Top and bottom end connecting rod bolts and nuts. Set of coupling belts. Two main bearing belts. Set of feed & bilge pump valves. Propeller. 2 P piston springs. Bolts & nuts assorted etc.*

The foregoing is a correct description,
FOR BLAIR & Co., LIMITED. Manufacturer. *of main engines & boilers*
W. Borrie

SECRETARY. 1905: Sept. 25. Oct. 11 Nov. 9. 24 Dec. 1. 5. 6. 9. 12. 14. 20. 22. 24. 28
 Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - } 1906: Jan. 3. 5. 11. 12. 15. 19 *New. 27. Feb. 7*
 Total No. of visits *21* Is the approved plan of main boiler forwarded herewith *No. 1014*
 " " " donkey " " " *Yes*

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

*The engines and boilers of this vessel have been constructed under Special Survey, the materials and workmanship are good & efficient, and when tested under steam were found satisfactory. In our opinion the machinery is now eligible for the notification **F.M.C. 2-06** in the Register Books.*

It is submitted that this vessel is eligible for **THE RECORD F.M.C. 2-06.**

Paul
19.2.06

The amount of Entry Fee. . . £ 2 : :
 Special . . . £ 34 : 9 :
 Donkey Boiler Fee . . . £ : :
 Travelling Expenses (if any) £ : :
 When applied for, **14 FEB 1906**
 When received, **20 FEB 1906**

Geo. A. Milner & A. C. Farnham
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **TUES. 20 FEB 1906**

Assigned

+ F.M.C. 2-06

MACHINERY CERTIFICATE WRITTEN.



© 2020 Lloyd's Register Foundation

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.