

REPORT ON MACHINERY

 No. 4394
 New No. 50079

Port of MIDDLESBROUGH-ON-TEES.

Received at London Office

No. in Survey held at Hickton &
Reg. Book.Date, first Survey 25th Sept. 1905 Last Survey Feb 7 1906(Number of Visits 21)
 on the Steel S.S. "Medomsley"
 Master G. Dobson Built at Blyth By whom built Blyth & B.C. & Co. Tons { Gross 3048
 Net 1934
 When built 1906
Engines made at Hickton By whom made Polain & Co. & Co. when made 1906Boilers made at Hickton By whom made Polain & Co. & Co. when made 1906Registered Horse Power _____ Owners F. Carrick & Co. Port belonging to NewcastleNom. Horse Power as per Section 28 289 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted NoENGINES, &c.—Description of Engines Direct Acting Trip Expansion No. of Cylinders 3 No. of Cranks 3Dia. of Cylinders 24-40-65 Length of Stroke 42 Revs. per minute 57 Dia. of Screw shaft as per rule 3.5 Material of W. Iron
as fitted 14.5/4 screw shaft)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 tightin 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 partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If twoliners 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 1/2 x 8 1/2 Dia. of thrust shaft undercollars 13 1/2 Dia. of screw 17-0 Pitch of screw 17 feet No. of blades 4 State whether moveable No Total surface 78 ftNo. of Feed pumps 2 Diameter of ditto 3" Stroke 30" Can one be overhauled while the other is at work YesNo. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 30" Can one be overhauled while the other is at work YesNo. of Donkey Engines Two Sizes of Pumps 9 x 10 Ballast Feed 4 x 8 No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room Four 3" diameter In Holds, &c. No. 1 & 2 & 3 holds. Two of 3" diaOne 3" dia & well. One 3" dia & well. One 3" dia & well.No. of bilge injections 1 sizes 6 1/4" 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 BothAre 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 AboveAre 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 YesWhat 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 YesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock New vessel Is the screw shaft tunnel watertight YesIs it fitted with a watertight door Yes worked from Top platformBOILERS, &c.—No. of Certificate 3577 (Letter for record S) Total Heating Surface of Boilers 4345 ft Is forced draft fitted NoNo. and Description of Boilers Two Cyl. Multitubular Working Pressure 180 lb Tested by hydraulic pressure to 360 lbDate of test 20-12-05 Can each boiler be worked separately Yes Area of fire grate in each boiler 59 ft No. and Description of safety valves toeach boiler Two Spring Area of each valve 7.06 sq Pressure to which they are adjusted 185 lb Are they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork 20" Dia. of boilers 15'-3" Length 10'-6" Material of shell plates SteelThickness 1 5/16" Range of tensile strength 27/32 Are they welded or flanged No Descrip. of riveting: cir. seams 1/2 1/2 in long. seams 2 Butts & Strap.Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets One row 9" Two 4 1/2" Lap of plates or width of butt straps 1'-7 1/2"Per centages of strength of longitudinal joint 85.1 Working pressure of shell by rules 186.8 lb Size of manhole in shell 17" x 13"Size of compensating ring 31'-27'-1 5/16" No. and Description of Furnaces in each boiler 3 Burn Impressed Material Steel Outside diameter 3'-6 1/4"Length of plain part top 6'-7 1/2" Thickness of plates bottom 9/16" Description of longitudinal joint Welded No. of strengthening rings —Working pressure of furnace by the rules 192 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 3/4"Pitch of stays to ditto: Sides 9 3/4" x 9" Back 9 3/4" x 9" Top 9 3/4" x 9 1/2" If stays are fitted with nuts or riveted heads None Working pressure by rules 185 lbMaterial of stays Steel Diameter at smallest part 1 9/16" Area supported by each stay 87.8 sq Working pressure by rules 196.2 lb End plates in steam space:Material Steel Thickness 1 3/32" Pitch of stays 19 x 20" How are stays secured 24 W Working pressure by rules 184 lb Material of stays SteelDiameter at smallest part 3" Area supported by each stay 380 sq Working pressure by rules 186 lb Material of Front plates at bottom SteelThickness 1 1/32" Material of Lower back plate Steel Thickness 1 1/16" Greatest pitch of stays 18 1/2" x 9" Working pressure of plate by rules 184 lbDiameter of tubes 3 1/2" Pitch of tubes 4 3/4" x 4 7/8" Material of tube plates Steel Thickness: Front 1 1/32" Back 1 3/16" Mean pitch of stays 9 1/2"Pitch across wide water spaces 14" Working pressures by rules 195 lb Girders to Chamber tops: Material Steel Depth andthickness of girder at centre 7 1/4" x 1 1/2" Length as per rule 26 1/4" Distance apart 9 1/4" Number and pitch of Stays in each Two 9 1/2"Working pressure by rules 191 lb Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler workedseparately — Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivetholes — 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:— Lap and bottom end connecting rod
bolts and nuts. Set of coupling bolts. Two main bearing bolts. Set
of feed & bilge pump valves. Propeller. & Piston spring
bolts & nuts mounted on

The foregoing is a correct description,
FOR BLAIR & CO., LIMITED.

Manufacturer. of main engines & boilers

W. Borrie

SECRETARY.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Total No. of visits 21

1905: Sept. 25. Oct. 11 Nov. 9. 24 Dec. 1. 5. 6. 9. 12. 14. 20. 22. 24. 28

Nov. 24 Feb. 7

Is the approved plan of main boiler forwarded herewith No. 101

" " " 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 **L.M.C. 2-06** in the Register
Book.

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

19.2.06
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. E. Fairman
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUES. 20 FEB 1906

Assigned

+ L.M.C. 2-06

MACHINERY CERTIFICATE
WRITTEN.



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Foundation