

# REPORT ON MACHINERY.

Port of Newcastle on Tyne

Received at London Office MAR 17 1903

No. in Survey held at Newcastle Date, first Survey Sep 18 '02 Last Survey Nov 6 '03

Reg. Book. on the Screw Steamer "Coaster" (Number of Visits 32)

Tons { Gross 269  
Net 13

Master P. Fairweather Built at Newcastle By whom built Wood Skinner & Co When built 1903

Engines made at North Shields By whom made Baird Bros when made 1903

Boilers made at S. Shields By whom made J. J. Ettringham and Co. when made 20.1.03.

Registered Horse Power 50 Owners J. Thompson & Son Port belonging to Newcastle

Nom. Horse Power as per Section 28 50 Is Refrigerating Machinery fitted no Is Electric Light fitted no

**ENGINES, &c.**—Description of Engines Compound No. of Cylinders two No. of Cranks two

Dia. of Cylinders 16" - 32" Length of Stroke 22" Revs. per minute 100 Dia. of Screw shaft as per rule 6.75 Lgth. of stern bush 2-5"

Dia. of Tunnel shaft as per rule 6.5 Dia. of Crank shaft journals as per rule 6.5 Dia. of Crank pin 6.9/16 Size of Crank webs 10 1/2" x 9" Dia. of thrust shaft under collars 6.9/16 Dia. of screw 7.9" Pitch of screw 10ft. 6" No. of blades 4 State whether moveable no Total surface 21.6 sq ft

No. of Feed pumps one Diameter of ditto 2 1/2" Stroke 11" Can one be overhauled while the other is at work

No. of Bilge pumps one Diameter of ditto 2 1/2" Stroke 11" Can one be overhauled while the other is at work

No. of Donkey Engines one Sizes of Pumps 4 1/2" x 2 1/4" x 4. Duplex No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3. 7/8" 1. 2 1/2", 3 = 2" and 1 = 2 1/2" In Holds, &c. 2 of 2" fore peak 2" 2"

No. of bilge injections 1 sizes 2 1/2" Connected to condenser to circulating pump C.P. 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

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 none

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

Is it fitted with a watertight door  worked from

**BOILERS, &c.**— (Letter for record S.) Total Heating Surface of Boilers 905 sq ft Is forced draft fitted no

No. and Description of Boilers One Cyl. Mult. Single end. Working Pressure 120 lb. Tested by hydraulic pressure to 240 lb.

Date of test 20.1.03 Can each boiler be worked separately  Area of fire grate in each boiler 31 sq ft No. and Description of safety valves to each boiler 2. Direct Spring Area of each valve 4.91 sq in Pressure to which they are adjusted 125 lb. Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 10.11 3/4" Length 9-6" Material of shell plates S.

Thickness 25/32 Range of tensile strength 28/32 tons Are they welded or flanged  Descrip. of riveting: cir. seams Lap. D.R. long. seams Lap. T.R.

Diameter of rivet holes in long. seams 1 3/16 Pitch of rivets 4 3/4" (S.P.P.) Lap of plates width of butt straps 8 5/16

Per centages of strength of longitudinal joint rivets 81. Working pressure of shell by rules 121 lb. Size of manhole in shell 16" x 12"

Size of compensating ring 7 1/2" x 25/32 No. and Description of Furnaces in each boiler 2. Plain Material S. Outside diameter 40"

Length of plain part top 7 3/4" bottom 10 2" Thickness of plates crown 19/32 Description of longitudinal joint Lap. S.R. No. of strengthening rings

Working pressure of furnace by the rules 128 lb. Combustion chamber plates: Material S. Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 11/16

Pitch of stays to ditto: Sides 9 1/2" x 9" Back 10 1/4" x 8 1/2" Top  If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 120 lb.

Material of stays S. Diameter at smallest part 1 1/2" Area supported by each stay 90 sq in Working pressure by rules 126 lb. End plates in steam space: Material S. Thickness 13/16 Pitch of stays 15" x 14 1/2" How are stays secured D.N.W. Working pressure by rules 143 lb. Material of stays S.

Diameter at smallest part 1 1/2" Area supported by each stay 218 sq in Working pressure by rules 136 lb. Material of Front plates at bottom S.

Thickness 13/16 Material of Lower back plate S. Thickness 3/4" Greatest pitch of stays 14" x 10 1/2" Working pressure of plate by rules 129 lb.

Diameter of tubes 3 1/2" Ex. Pitch of tubes 4 3/4" x 4 7/8" Material of tube plates S. Thickness: Front 27/32 Back 25/32 Mean pitch of stays 11 7/8" b.

Pitch across wide water spaces 14 1/2" Working pressures by rules 120 lb. Girders to Chamber tops: Material none Depth and thickness of girder at centre Palm Stay Length as per rule 27 1/2 in Distance apart 11 3/4" Number and pitch of Stays in each

Working pressure by rules  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



