

REPORT ON MACHINERY.

Port of *Dundee*Built at *Dundee*Date, first Survey *Dec 3rd*Received at London Office **THURS. 14 JUL 1892**Last Survey *July 6th* 1892(Number of Vistas *105*)*S S "Dungeness"*Built at *Dundee*By whom built *Gourley Bros & Co*Gross *1201*Tons Net *514*When built *1892*By whom made *Gourley Bros & Co*when made *1892*By whom made *Gourley Bros & Co*when made *1892*Horse Power *280*Owners *Clyde Spg Co*Port belonging to *Glasgow*Nom. Horse Power as per Section 28 *273*

ENGINES, &c.—

Description of Engines *Triple expansion*No. of Cylinders *3*Diameter of Cylinders *24-39-61*Length of Stroke *48*

Revolutions per minute

Diameter of Screw shaft as per rule *11 1/2*Diameter of Tunnel shaft as per rule *11"*Diameter of Crank shaft journals *12 3/4*Diameter of Crank pin *12 3/4*Size of Crank webs *26 x 8 5/8*Diameter of screw *14 1/2*Pitch of screw *21' 0"*No. of blades *4*State whether moveable *yes* Total surface *60 sq ft*No. of Feed pumps *2*Diameter of ditto *3 1/2*Stroke *34*Can one be overhauled while the other is at work *yes*No. of Bilge pumps *2*Diameter of ditto *3 1/2*Stroke *34*Can one be overhauled while the other is at work *yes*No. of Donkey Engines *2*Sizes of Pumps *9-7 x 18*

No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room *3 f 3 1/2" dia*In Holds, &c. *Fore hold 1 f 3 1/2" Main hold 1 f 3 1/2"*After hold *2 f 3 1/2"*No. of bilge injections *1*size *8"*Connected to condenser, or to circulating pump *yes*Is a separate donkey suction fitted in Engine room & size *yes 3 1/2"*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 *yes*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*Are pipes carried through the bunkers *bilge ballast*How are they protected *wood casings*Are pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *yes*Are bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *yes*Are stern tube, propeller, screw shaft, and all connections examined in dry dock *yes*Is the screw shaft tunnel watertight *yes*

RS, &c.—

(Letter for record *ru*)Total Heating Surface of Boilers *4321*Description of Boilers *Two - single ended - forced draught*Working Pressure *150 lbs* Tested by hydraulic pressure to *300 lbs*Can each boiler be worked separately *yes*Area of fire grate in each boiler *48.73*

No. and Description of safety valves to

*2 Spring loaded*Area of each valve *9.6 sq in*Pressure to which they are adjusted *150 lbs* Are they fittedgear *yes*Smallest distance between boilers or uptakes and bunkers or woodwork *12"*Mean diameter of boilers *14 1/2"*Material of shell plates *steel*Thickness *1 1/2*Description of riveting: circum. seams *treble lap* long. seams *double butt 3/2 rows*rivet holes in long. seams *1/4*Pitch of rivets *4 1/2"*Lap of plates or width of butt straps *18 1/2"*Strength of longitudinal joint rivets *99.8*Working pressure of shell by rules *153 lbs*Size of manhole in shell *18 x 13*Gating ring *McKillo Pat*No. and Description of Furnaces in each boiler *3 Purves*Material *steel* Outside diameter *3' 4"*part top *✓*Thickness of plates crown *5/8*Description of longitudinal joint *welded*No. of strengthening rings *Purves*part bottom *✓*Thickness of plates bottom *5/8*Description of longitudinal joint *welded*No. of strengthening rings *Purves*Furnace by the rules *144*Combustion chamber plates: Material *steel* Thickness: Sides *7/8* Back *7/8* Top *7/8* Bottom *3/4*Working pressure by rules *148*ditto: Sides *7 1/2 x 7 1/2* Back *7 1/2 x 7 1/2* Top *7 1/2 x 7 1/2*If stays are fitted with nuts or riveted heads *nuts*Working pressure by rules *148*Diameter at smallest part *1 5/8*Area supported by each stay *58.5*Working pressure by rules *141* End plates in steam space:Thickness *3/4 x 3/4*Pitch of stays *16 1/2 x 16*How are stays secured *double nuts* Working pressure by rules *221*Material of Front plates at bottom *steel*Material of Lower back plate *steel* Thickness *3/8*Greatest pitch of stays *13 3/4* Working pressure of plate by rules *157*Pitch of tubes *4 x 3 1/2*Material of tube plates *steel* Thickness: Front *3/8* Back *3/4*Mean pitch of stays *8 x 4 1/2*Working pressures by rules *150*Girders to Chamber tops: Material *steel* Depth andDistance apart *7 1/2* Number and pitch of Stays in each *4 f 4 1/2"*Superheater or Steam chest; how connected to boiler *none*

Can the superheater be shut off and the boiler worked

Diam. of rivet

Length

Thickness of shell plates

Description of longitudinal joint

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

End plates: Thickness

How stayed

Area of safety valves to superheater

Are they fitted with easing gear

© 2020

DONKEY BOILER— Description Vertical 6 cross tubes

Made at Dundee By whom made Gourley Bros & Co When made 1892 Where fixed Stirling

Working pressure 60 lbs tested by hydraulic pressure to 120 lbs No. of Certificate 629 Fire grate area 14.7 Description of safety valves

No. of safety valves 2 Area of each Pressure to which they are adjusted 60 lbs If fitted with easing gear yes If steam

enter the donkey boiler no Diameter of donkey boiler 6' 0" Length 20' 0" Material of shell plates steel

Description of riveting long seams double lap Diameter of rivet holes $\frac{7}{8}$ Whether punched or drilled drilled

Lap of plating $4\frac{1}{2}$ Per centage of strength of joint Rivets 47.8 Thickness of shell crown plates $\frac{13}{16}$ Radius of do. centre flange of

Di. of stays $2\frac{1}{2}$ Diameter of furnace Top 4' 4" Bottom 4' 9" Length of furnace 12' 3" Thickness of furnace plates $\frac{9}{16}$

joint welded Thickness of furnace crown plates $\frac{9}{16}$ Stayed by 4 stays Working pressure of shell by

Working pressure of furnace by rules 60 Diameter of uptake 15" Thickness of uptake plates $\frac{9}{16}$ Thickness of water tubes $\frac{7}{16}$

SPARE GEAR. State the articles supplied:— 1 set coupling bolts, 1 set propeller studs, 1 set feed pump valves & seats.

The foregoing is a correct description,

Gourley Bros & Co Manufacturer.

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

The machinery of this vessel has been built under special & in accordance with the enclosed approved plans and the Secret letters of Sept 14th 18th 91 and Jan 18. Feb 9-27 and April 22nd 1892.

The main and donkey boilers are constructed of steel and the mate has been tested at the steel works by the Society's Surveyors.

The Safety valves of the main and donkey boilers have been adjusted to steam to working pressures of 100 lbs and 60 lbs respectively and the engine running under steam. Boilers fitted for forced draught.

Materials and workmanship are good. Following spare gear supplied viz top end, bottom end & main bearing bolts and bilge pump.

The machinery is now in a good and safe working condition. The vessel may in my opinion be classed in the Register B. the notification **LMC 7-92** when the remainder of the spare has been supplied as required by the rules.

Certificate (if required) to be sent to Dundee Office

The amount of Entry Fee.. £ 2 : 0 : 0 When applied for,

Special £ 33 : 13 : 0 July 9. 18. 92.

Donkey Boiler Fee £ : : : When received,

Travelling Expenses (if any) £ : : : July 13. 18. 92.

Committee's Minute

Assigned

TUES. 25 OCT 1892

+ LMC 7. 92

Harry Clark Foreign Shipping

Engineer Surveyor to Lloyd's Register of



© 2020

Lloyd's Register Foundation