

REPORT ON MACHINERY.

BOX CASE 11151

No. 11151

Port of Glasgow

THURS. 10 DEC 1891

No. in Survey held at Glasgow

Date, first Survey 19th June

Last Survey 28th Nov 1891

Reg. Books

(Number of Visits 12)

on the

Master B. Walsh

Built at Bowling

By whom built Scott & Co

Tons { Gross 502
Net 198
When built 1891

Engines made at Glasgow

By whom made Muir & Houston

when made 1891

Boilers made at Do.

By whom made Do.

when made 1891

Registered Horse Power 75

Owners Wm Robertson

Port belonging to Glasgow

GINES, &c.—

Description of Engines Inverted Direct Acting Triple Expansion. No. of Cylinders Three.
Diam. of Cylinders 14-23-36 Length of Stroke 27 Rev. per minute 105 Point of Cut off, High Pressure 7/8 Low Pressure 1/2
Diameter of Screw shaft 7 1/4 Diam. of Tunnel shaft 6 3/4 Diam. of Crank shaft journals 7 1/4 Diam. of Crank pin 7 1/4 size of Crank webs 5 1/4 x 10 1/2
Diameter of screw 9-0 Pitch of screw 13-0 No. of blades Four state whether moveable Solid total surface 27 sq ft.
No. of Feed pumps One diameter of ditto 2 1/2 Stroke 13 1/2 Can one be overhauled while the other is at work ✓
No. of Bilge pumps One diameter of ditto 3 Stroke 13 1/2 Can one be overhauled while the other is at work ✓
Where do they pump from Engine Room & Hold

No. of Donkey Engines One and Size of Pumps 4 1/2 inch 2 1/4 pump & 4 stroke Where do they pump from Engine room, hold, sea, one Pubometer [Hohwell & Hank - Pubometer draws from all compartments -

Are all the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible ✓
No. of bilge injections One and sizes 3 inch Are they connected to condenser, or to circulating pump Circulating.
Are the pumps worked By levers from crosshead of intermediate engine.
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 all pipes carried through the bunkers Pipes Forward. How are they protected Wood.
Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes.
When were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launching.
Is the screw shaft tunnel watertight No tunnel and fitted with a sluice door ✓ worked from ✓

BOILERS, &c.—

No. of Boilers One Description Cylindrical. Multiple Material Steel.
Working Pressure 160 lbs. Tested by hydraulic pressure to 320 lbs. Date of test Nov 14th 1891 Letter (for record) S.

Description of superheating apparatus or steam chest None.
Can each boiler be worked separately ✓ Can the superheater be shut off and the boiler worked separately ✓
No. of square feet of fire grate surface in each boiler 51 1/2 Description of safety valves Direct springs No. to each boiler Two.
Area of each valve 5.9 sq in Are they fitted with easing gear Yes No. of safety valves to superheater 1 area of each valve ✓
Are they fitted with easing gear Yes Smallest distance between boilers and bunkers or woodwork No side bunker Diameter of boilers 12-6
Length of boilers 10-0 description of riveting of shell long. seams Butt. three rows circum. seams Lap-double Thickness of shell plates 1 3/32
Diameter of rivet holes 1 1/8 whether punched or drilled Drilled pitch of rivets 7 3/4 x 3 7/8 Lap of plating 17 x 7/8 butt chap.
Percentage of strength of longitudinal joint 85.5 working pressure of shell by rules 162 lbs size of manholes in shell 11 x 16
Size of compensating rings Doubling plate No. of Furnaces in each boiler Three Description of Furnaces Plain.
Outside diameter 39 length 6-6 thickness of plates 2 3/32 description of joint Butt. if rings are fitted No.
Greatest length between rings ✓ working pressure of furnace by the rules 162 lbs combustion chamber plating, thickness, sides 9/16 back 9/16 top 9/16
Pitch of stays to ditto, sides 7 3/4 x 7 3/4 back 7 3/4 x 7 3/4 top 7 3/4 x 7 1/2 If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 162 lbs Diameter of stays at smallest part 1 3/8 x 1 1/2 working pressure of ditto by rules 200 lbs end plates in steam space, thickness 1
Pitch of stays to ditto 15 x 15 how stays are secured Nuts working pressure by rules 160 lbs diameter of stays at smallest part 2 1/2 inch working pressure by rules 162 lbs Front plates at bottom, thickness 13/16 Back plates, thickness 13/16
Greatest pitch of stays 12 x 7 3/4 working pressure by rules 160 lbs Diameter of tubes 3 1/4 pitch of tubes 4 1/2 x 4 1/2 thickness of tube plates, front 13/16 back 13/16 how stayed Tubes pitch of stays 13 1/2 x 9 width of water spaces 4 1/2 x 6
Diameter of Superheater or Steam chest None length ✓ thickness of plates ✓ description of longitudinal joint ✓ diam. of rivet holes ✓
Pitch of rivets ✓ working pressure of shell by rules ✓ diameter of flue ✓ thickness of plates ✓ If stiffened with rings ✓
Distance between rings ✓ working pressure by rules ✓ end plates of superheater, or steam chest; thickness ✓ how stayed ✓
Superheater or steam chest; how connected to boiler ✓

002846-002852-0074

DONKEY BOILER— Description *Vertical. Two cross tubes.*
Made at *Glasgow* by whom made *Muir & Houston* when made *1891* where fixed *on deck*
Working pressure *70 lb.* tested by hydraulic pressure to *140 lb.* No. of Certificate *3121* fire grate area *9 sq ft.* description of safety
valves *Direct spring* No. of safety valves *one* area of each *4.9 sq in.* if fitted with easing gear *yes* if steam from main boilers can
enter the donkey boiler *No.* diameter of donkey boiler *4-3"* length *9-6"* overall description of riveting *Lap - double*
Thickness of shell plates *3/8"* diameter of rivet holes *15/16"* whether punched or drilled *Rimmed* pitch of rivets *3 1/4"* lap of plating *4"*
per centage of strength of joint *78* thickness of crown plates *9/16"* stayed by *Plate dished & three stays 1 1/2" dia*
Diameter of furnace, top *3-0"* bottom *3-6"* length of furnace *4-6"* thickness of plates *7/16"* description of joint *Lap.*
Thickness of furnace crown plates *7/16"* stayed by *Plate dished & three stays 1 1/2" dia* working pressure of shell by rules *120 lb.*
Working pressure of furnace by rules *77 lb.* diameter of uptake *10"* thickness of plates *7/16"* thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:— *Top & bottom end bolts & nuts for connecting rods - 4 - main
bearing bolts - One set of coupling bolts - Feed & bilge pump valves - One set of feed bars -
Iron bolts & nuts assorted.*

The foregoing is a correct description,

Muir & Houston

Manufacturer.

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

*These engines & boilers have been constructed
under special survey - they are of good material & workmanship -
they have been well fitted on board - satisfactorily tested under pressure
and I am of opinion they are eligible to be classed + L.M.C.
The Register Book.*

Appended hereto are two reports on forgings

Certificate (if required) to be sent to

The amount of Entry Fee .. £ *1* .. received by me,
Special .. £ *11* .. *5* ..
Donkey Boiler Fee .. £ ..

2/11/1891

(Travelling Expenses, if any, £ ..)

Committee's Minute

TUES. 15 DEC 1891

+ L.M.C. 11.91

W. P. Robson
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



© 2020

Lloyd's Register
Foundation