

REPORT ON MACHINERY.

(Received in London Office)

Made at Belfast Date, first Survey Novr 1880 Last Survey 10th March 1881
S.S. "Topic" Tons 265.2
 Engine erguson Built at Belfast When built 1880-1
 By whom made Mc. Ilwaine & Lewis when made 1880-1
 By whom made when made 1880-1
 Indicated Power 50 Owners W.A. Grainger Port belonging to Belfast

MACHINERY, &c.—

Kind of Engines Compound, Inverted, Direct acting.
 Cylinders 19" x 32" Length of Stroke 24" No. of Rev. per minute 85 Point of Cut off, High Pressure 1/2 Low Pressure 1/2
 Screw shaft 6" Diameter of Tunnel shaft 6" Diameter of Crank shaft journals 6" Diameter of Crank pin 6" size of Crank webs 6 1/4" x 4 3/8"
 Pitch of screw 12' 6" No. of blades 4 state whether moveable not total surface 22.6 sq. ft.
 Feed pumps one diameter of ditto 3" Stroke 12" Can one be overhauled while the other is at work ✓
 Bilge pumps one diameter of ditto 3" Stroke 12" Can one be overhauled while the other is at work ✓
 Do they pump from Engine Room and Stokehold Bilges and holds.
 Key Engines one Size of Pumps 3" dia 6" Stroke Where do they pump from Engine Room and Stokehold Bilge, holds, & Sea.
 Are the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes
 Are the bilge injections one and sizes 5" dia Are they connected to condenser, or to circulating pump to suction pipes
 Are the pumps worked by levers.
 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 the pipes carried through the bunkers None How are they protected ✓
 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 Stuffing box on and fitted with a sluice door yes worked from top platform.

BOILERS, &c.—

Number of Boilers one Description Cylindrical Single-ended.
 Working Pressure 75 lbs Tested by hydraulic pressure to 150 lbs Date of test 8th February 1881.
 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 33 Description of safety valves Direct Spring (Cockburns)
 No. to each boiler two area of each valve 8.30" Are they fitted with easing gear yes
 No. of safety valves to superheater ✓ area of each valve ✓ are they fitted with easing gear ✓
 Smallest distance between boilers and bunkers 5"
 Diameter of boilers 11'-0" Length of boilers 8'-10" description of riveting of shell long. seams double butt drilled circum. seams lap, single
 Thickness of shell plates 3/4" diameter of rivet holes 7/8" whether punched or drilled punched pitch of rivets 3 1/4"
 Lap of plating 11" butt straps per centage of strength of longitudinal joint 70 working pressure of shell by rules 90 lbs
 Size of manholes in shell 15" x 12" size of compensating rings 5" x 1 riveted on.
 No. of Furnaces in each boiler two outside diameter 2'-10" length, top 6'-0" bottom 8'-6"
 Thickness of plates 7/16" description of joint double butt if rings are fitted Tenon bolt greatest length between rings 6'-0"
 Working pressure of furnace by the rules 85 lbs
 Combustion chamber plating, thickness, sides 7/16" back 7/16" top 1/2"
 Pitch of stays to ditto ✓ sides 8 1/2" x 8 1/2" back 8 1/2" x 8 1/2" top 9" x 9 1/2"
 If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 75 lbs lowest.
 Diameter of stays at smallest part 1 1/4" Screwed working pressure of ditto by rules 85 lbs.
 End plates in steam space, thickness 7/16" pitch of stays to ditto 15" x 15" how stays are secured Nuts & washers
 Working pressure by rules 75 lbs diameter of stays at smallest part 2" working pressure by rules 85 lbs
 Front plates at bottom, thickness 9/16" Back plates, thickness 9/16" greatest pitch of stays 8 1/2" working pressure by rules 135 lbs.

Diameter of tubes 3" ext. pitch of tubes 4 1/4" x 4 1/2" thickness of tube plates, front 7/8" back
How stayed Stay tubes pitch of stays 13 1/2" x 12 3/4" width of water spaces 1 1/4" x 1 1/2"
Diameter of Superheater or Steam chest ✓ length ✓
Thickness of plates ✓ description of longitudinal joint ✓ diameter 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 ✓

DONKEY BOILER— Description Upright, With two water tubes,
Made at Belfast By whom made M. Shuman & Lewis when made 1880-1
Where fixed Stokehold working pressure Loaded to 43 lbs Tested by hydraulic pressure to 150 lbs No. of Certificate
Fire grate area 9 sq ft Description of safety valves Lever & weight No. of safety valves one area of each 7
If fitted with easing gear no If steam from main boilers can enter the donkey boiler no
Diameter of donkey boiler 4'-0" length 8'-0" description of riveting lap, single,
thickness of shell plates 3/8" diameter of rivet holes 1 1/16" whether punched or drilled punched,
pitch of rivets 2" lap of plating 2 1/2" per centage of strength of joint 59
thickness of crown plates 7/16" stayed by Uptake & dished,
Diameter of furnace, top 3'-2" bottom 3'-6" length of furnace 4'-3"
thickness of plates 3/8" description of joint lap, single,
thickness of furnace crown plates 7/16" stayed by Uptake & dished,
Working pressure of shell by rules 72 lbs working pressure of furnace by rules 72 lbs
diameter of uptake 12 1/4" thickness of plates 3/8" thickness of water tubes 3/8"

The foregoing is a correct description,
Mac Shuman & Lewis Manufacturers

General Remarks (State quality of workmanship, opinions as to class, &c. The Engine and Boilers are now
in good order and safe working condition and eligible in my
opinion to be noted in the Register Book & Lloyd's M.C. (in red)

*It is submitted that this vessel
is eligible to have the registration
& Lloyd's M.C. recorded in the
Register Book
M/27/3/10*

The amount of Entry Fee .. £ 2 : 0 : 0 received by me,

Special .. £ 7 : 10 : 0

Certificate (if required) .. £ gratis : 19/3 1881.

To be sent as per margin.

(Travelling Expenses, if any, £ 6-6-0)

Committee's Minute

Tuesday March, 22nd, 1881

+ Lloyd's

Robert Edmund Taylor & Son Printers, 19, Old Street, Goswell Road, London, E.C.

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



Lloyd's Register
Foundation

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