

REPORT ON MACHINERY.

No. 2969

No. in Survey held at Belfast

Reg. Book. on the "Meraggio"

Date, first Survey 2nd Dec 1882 Last Survey 10th July 1883

Received at London Office 13th AUGUST, 1883

(Number of Visits 2) Tons 1125.88
409.91

Master D. Young Built at Belfast By whom built Mulligan Clark & Co When built 1883

Engines made at Belfast By whom made Walter Coates & Co. Ltd when made 1883

Boilers made at " By whom made " when made 1883

Registered Horse Power 99 Owners Marshall Dods & Co Port belonging to Leith

ENGINES, &c.—

Description of Engines Compound Inverted Surface Condensing

Diameter of Cylinders 26 7/8 1/2 Length of Stroke 36 No. of Rev. per minute 65 Point of Cut off, High Pressure 1/2 S Low Pressure 1/2 S

Diameter of Screw shaft 9 3/4 Diam. of Tunnel shaft 9 1/4 Diam. of Crank shaft journals 9 3/4 Diam. of Crank pin 10 1/4 size of Crank webs 12 1/2 x 7 1/2

Diameter of screw 13 1/4 Pitch of screw 16 0 No. of blades 4 state whether moveable not total surface about 50 sq ft.

No. of Feed pumps Two diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work yes

No. of Bilge pumps Two diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work yes

Where do they pump from engine room, fore and aft, well and ballast tanks

No. of Donkey Engines Two Size of Pumps 7 1/2 dia x 9" Stroke Where do they pump from Large pump, from ballast tanks & engine room, small pump, from sea, hot well and ballast tanks

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

No. of bilge injections Two and sizes 4 1/2 dia Are they connected to condenser, or to circulating pump in pump

How are the pumps worked by levers connected to piston rod instead of after engine

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both Valves & Cocks

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 —

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 New Year

Is the screw shaft tunnel watertight is tight and fitted with a sluice door yes worked from top platform

BOILERS, &c.—

Number of Boilers Two Description Cylindrical Multi-tubular Whether Steel or Iron Shell Iron, Riv. Steel

Working Pressure 85 lbs Tested by hydraulic pressure to 170 lbs Date of test 9/5/83

Description of superheating apparatus or steam chest Horizontal Drum

Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately No superheater

Area of square feet of fire grate surface in each boiler 45 Description of safety valves Spring No. to each boiler Two

Area of each valve 14 19 sq 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 or woodwork 10" Diameter of boilers 44 7/8"

Length of boilers 10 6 description of riveting of shell long. seams all welded except top Thickness of shell plates 1 3/16

Diameter of rivet holes 15/16 whether punched or drilled drilled pitch of rivets 4 1/2 Lap of plating Butt Joint 17" wide

Percentage of strength of longitudinal joint 70 working pressure of shell by rules 95 lbs size of manholes in shell 13 x 17

Number of compensating rings 7 x 1 1/8 No. of Furnaces in each boiler Three

Side diameter 3 7/8 length, top 6 0 bottom 9 6 thickness of plates 3/16 description of joint Butt Joint Riv. If rings are fitted in bottom

Least length between rings about 6 ft working pressure of furnace by the rules 164 lbs combustion chamber plating, thickness, sides 1/2 back 1/2 top 9/16

Thickness of stays to ditto, sides 8 x 8 back 8 x 8 top 7 1/2 x 8 If stays are fitted with nuts or riveted heads yes working pressure of plating by rules 190 lbs Diameter of stays at smallest part 3/8 working pressure of ditto by rules 138 lbs end plates in steam space, thickness 7/8

Thickness of stays to ditto 1 5/8 x 1 5/8 how stays are secured nut washers working pressure by rules 121 lbs diameter of stays at smallest part 2 7/8 working pressure by rules 128 lbs Front plates at bottom, thickness 3/16 Back plates, thickness 3/16

Least pitch of stays 14" working pressure by rules 86 lbs Diameter of tubes 3 1/2 pitch of tubes 4 7/8 x 4 3/4 thickness of tube plates, front 3/4 back 3/4 how stayed Stayed pitch of stays 9 3/4 x 9 1/2 width of water spaces 1 1/4 diam. of rivet holes 7/8

Diameter of Superheater or Steam chest 3 7/8 length 5 6 thickness of plates 7/8 description of longitudinal joint Butt Joint Riv. diam. of rivet holes 7/8

Thickness of rivets 3/4 working pressure of shell by rules 191 lbs 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 3/4 how stayed by 5" straps

Superheater or steam chest; how connected to boiler by flanged neck 1 1/2" thick

7/83

workable

20M



DONKEY BOILER— Description *Cylindrical Vertical with Firebox All Rating, etc*
 Made at *Belfast* by whom made *V. Coates & Co* when made *7/5/83* where fixed in *St. Peter's Rd*
 Working pressure *80 lb* tested by hydraulic pressure to *160 lb* No. of Certificate *36* fire grate area *12 1/2 sq ft* description of safety
 valves *Spring* No. of safety valves *One* area of each *11.04 sq ft* if fitted with easing gear *Yes* if steam from main boilers can
 enter the donkey boiler *No* diameter of donkey boiler *5'-6"* length *12'-6"* description of riveting *Lang. Seam, Cap, Riv.*
 Thickness of shell plates *1/2* diameter of rivet holes *3/4* whether punched or drilled *drilled* pitch of rivets *2 1/4* lap of plating *1 1/2*
 per centage of strength of joint *66* thickness of crown plates *1/16* stayed by *8 stays each 2 1/2" effective diam.*
 Diameter of furnace, top *5'1"* bottom *5'8"* length of furnace *6'-0"* thickness of plates *9/16* description of joint *Cap. Single riveted*
 Thickness of furnace crown plates *9/16* stayed by *as shell crown* working pressure of shell by rules *107 lb*
 Working pressure of furnace by rules *82.5 lb* diameter of uptake *15"* thickness of plates *5/8* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:— *in addition to the spare gear required by the rules, the following articles have been supplied, 1 Spare propeller, 1 set spare valves for donkey engine, 1 Spare spring for safety valves, cylinder coops and feed pumps, 6 Spare boiler tubes, 6 Condenser tubes, spare gauge glasses, furnace bars for main & donkey boilers.*

The foregoing is a correct description,
 Manufacturer. *Victor Coates* DIRECTOR

General Remarks (State quality of workmanship, opinions as to class, &c.)
Material and workmanship good. The machinery and boiler of this vessel are in good order and safe working condition and, in my opinion, eligible to have the certificate of fitness recorded in the Register Book.

It is submitted that this vessel is eligible to have the certificate of fitness recorded in the Register Book. J.M. 13/8/83

Large blue scribble or signature.

The amount of Entry Fee £ : : : received by me,
 Special .. £ 14 : 17 : :
 Donkey Boiler Fee .. £ : : :
 Certificate (if required) .. £ : : : 11.8.1883
 (Travelling Expenses, if any, £ 9-9-0)

James Ritchie
 Engineer Surveyor to Lloyd's Register of British & Foreign Ships

Committee's Minute TUESDAY 14 AUGUST 1883 18