

REPORT ON MACHINERY.

No. 2969

No. in Survey held at *Belfast*
Reg. Book. on the *"Meraggio"*

Date, first Survey *2nd Decr 1882* Last Survey *10th July 1883*
(Number of Visits *2*)

Tons *1125.88*
709.91

Master *D. Young* Built at *Belfast* By whom built *Mitchell & Co*
Engines made at *Belfast* By whom made *Victor 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 *3 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 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*
That 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*
Then were stern tube, propeller, screw shaft, and all connections examined in dry dock *New Road*
the screw shaft tunnel watertight *in the 20* 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, Rivet, Steel*
Working Pressure *83-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 1/2* Are they fitted with easing gear *yes* No. of safety valves to superheater *"* area of each valve *"*
Are they fitted with easing gear *yes* Smallest distance between boilers and bunkers or woodwork *10"* Diameter of boilers *14 1/2*
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 7/8* length, top *6-0* bottom *9-6* thickness of plates *3/8* description of joint *Butt Joint, Steel*
Greatest 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*
Pitch 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*
Pitch of stays to ditto *15 x 15* how stays are secured *nut & washer* 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*
Greatest 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*
Diameter of Superheater or Steam chest *3-7* length *5-6* thickness of plates *3/8* description of longitudinal joint *Butt Joint, Steel*
Pitch of rivets *3 1/4* working pressure of shell by rules *191 lbs* diameter of flue *"* thickness of plates *"* If stiffened with rings *yes*
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*

DONKEY BOILER— Description *Cylindrical Vertical with Firebox. All Plating, etc.*
Made at *Belfast* by whom made *V. Coates & Co.* when made *7/5/83* where fixed in *Hobart*
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 in* 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, Lap, Driv.*
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 *4"*
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 *Lap 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 cocks and feed pumps, 6 spare boiler tubes, 6 spare condenser tubes, spare gauge glasses, furnace bars for train & donkey boilers.*

FOR VICTOR COATES & CO LIMITED

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 notification

Hydro No C 7-83 recorded in the Register Book.

It is submitted that this vessel is eligible to have the notification recorded. JMC 13/8/83

The amount of Entry Fee £ *11.8.18* received by me,
Special .. £ *14.17* ..
Donkey Boiler Fee .. £
Certificate (if required) .. £
To be sent as per margin.

(Travelling Expenses, if any, £ *9-9-0*)

Committee's Minute

TUESDAY 14 AUGUST 1883

18

James Ritchie

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