

REPORT ON MACHINERY.

Port of Sunderland

Received at London Office

No. 16330

No. in Survey held at Sunderland
Reg. Book.

Date, first Survey 3rd July

Last Survey 25 Nov 1891

on the S.S. "Marietta Ralli" "ΜΑΡΙΕΤΤΑ ΡΑΛΛΗ"

(Number of Visits) 18
Tons { Gross 2339
Net 1501
When built 1891

Master A. Legonas Built at West Hartlepool By whom built Wittby & Co

Engines made at Sunderland By whom made Wm Allan & Co

when made 1891

Boilers made at Sunderland By whom made Wm Allan & Co

when made 1891

Registered Horse Power 200 Owners Foscolo Mangos & Co

Port belonging to ΠΙΟΚΟΣ ΝΕΙΡΑΙΕΥΕ

ENGINES, &c.—

Description of Engines Triple compound, direct acting No. of Cylinders 3
Diam. of Cylinders 22" 36" & 59" Length of Stroke 39" Rev. per minute 140 Point of Cut off, High Pressure 1/2 stroke Low Pressure 1/2 stroke
Diameter of Screw shaft 11" Diam. of Tunnel shaft 10 1/2" Diam. of Crank shaft journals 11" Diam. of Crank pin 11" size of Crank webs 8" x 19"
Diameter of screw 14-6 Pitch of screw 16-0 No. of blades 4 state whether moveable not total surface 60 sq
No. of Feed pumps 2 diameter of ditto 3" Stroke 24" Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 diameter of ditto 3" Stroke 24" Can one be overhauled while the other is at work yes (engine room & tunnel wells)
Where do they pump from Fore, main, engine room and after tanks, fore main & after holds
No. of Donkey Engines 2 Size of Pumps 8" x 9" & 3 1/4" x 5 1/4" Where do they pump from Sea, hotwell, tanks holds and wells

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 yes
No. of bilge injections one and sizes 3 1/2" Are they connected to condenser, or to circulating pump circulating pump, yes
How are the pumps worked by levers on middle 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
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 Vessel
Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from top platform of engine room

BOILERS, &c.—

No. of Boilers 2 Description Ordinary marine type Material Steel Letter (for record) S.
Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 5-10-91
Description of superheating apparatus or steam chest none
Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately —
No. of square feet of fire grate surface in each boiler 42 sq Description of safety valves direct spring No. to each boiler 2
Area of each valve 4 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 15" Diameter of boilers 12-3 1/4"
Length of boilers 10-6 description of riveting of shell long. seams treble riv butt straps dble riv lap Thickness of shell plates 1 1/8"
Diameter of rivet holes 1 3/16" whether punched or drilled drilled pitch of rivets 4" & 3 1/2" Lap of plating 15"
Per centage of strength of longitudinal joint 82.4% working pressure of shell by rules 163 lbs size of manholes in shell 16" x 12"
Size of compensating rings plate 28" x 24" x 1 1/4" No. of Furnaces in each boiler 3 Description of Furnaces plain
Outside diameter 2-10 7/16" length 4 feet thickness of plates 2 1/2" description of joint welded if rings are fitted no
Greatest length between rings — working pressure of furnace by the rules 169 lbs combustion chamber plating, thickness, sides 5/8" back 5/8" top 5/8"
Pitch of stays to ditto, sides 8 7/8" x 8 7/16" back 8" x 7 3/4" top 8 7/8" x 8" If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 189 lbs Diameter of stays at smallest part 1 1/2" working pressure of ditto by rules 167 lbs end plates in steam space, thickness 1 1/8"
Pitch of stays to ditto 15 7/8" x 14" how stays are secured nuts working pressure by rules 160 lbs diameter of stays at smallest part 2 1/4" Front plates at bottom, thickness 3/4" Back plates, thickness 3/4"
Greatest pitch of stays 13 1/2" working pressure by rules with dble Diameter of tubes 3 1/4" pitch of tubes 4 1/2" x 4 1/2" thickness of tube plates, front 3/4" back 3/4" how stayed stay tubes pitch of stays 9 1/2" width of water spaces 1", 1 1/4", 5 1/2"
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 —
Total heating surface 3200 sq Superheater or steam chest; how connected to boiler —

DONKEY BOILER— Description *Cylindrical multitubular single ended 2 furnaces*
 Made at *Stockton* by whom made *J. Hudson & Co* when made *9-10-91* where fixed *Stokehold*
 Working pressure *60 lbs* tested by hydraulic pressure to *120 lbs* No. of Certificate *330* fire grate area *22 sq* description of safety
 valves *Spring* No. of safety valves *one* area of each *11.04* if fitted with easing gear *yes* if steam from main boilers can
 enter the donkey boiler *no* diameter of donkey boiler *4-6"* length *8-0"* description of riveting *double rivet lap*
 Thickness of shell plates *13/32"* diameter of rivet holes *13/16"* whether punched or drilled *punched* pitch of rivets *2 3/4"* lap of plating *4 1/2"*
 per centage of strength of joint *40.4* thickness of *coron* plates *9/16"* stayed by *1 3/4"* effective stays *13" x 13 1/2"* pitch
 Diameter of furnace, top *2-3 3/4"* bottom *—* length of furnace *5 1/2 ft* thickness of plates *3/8"* description of joint *welded*
 Thickness of furnace *coron* plates *1 1/16"* sides *1 1/2"* stayed by *1 1/8"* stays riveted *8 1/2" x 8"* pitch working pressure of shell by rules *68 lbs*
 Working pressure of furnace by rules *82 lbs* diameter of *uptake* tubes *3"* thickness of plates *F 1/2 B 5/8"* thickness of *water* tubes *no 11 W.G*

SPARE GEAR. State the articles supplied:— *Top and bottom end connecting rod bolts & nuts, two*
main bearing bolts & nuts, one set of coupling bolts, feed & bilge pump valves,
piston rod & crosshead.

The foregoing is a correct description,

Manufacturer of main engines & boilers.

Wm Allan & Co
T. Bann

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

The main steam pipes have been tested by hydraulic pressure to 320 lbs. The machinery has been constructed under special survey the material and workmanship are good and efficient and the engine when tried under steam worked satisfactorily. The Vessel has left this Port for Hartlepool where the following work will be finished viz. Hole to be cut in top plate of engine room well. Stairs to fit at after end of tunnel. After well section pipe to fit Donkey boiler mountings to fit and safety valves to adjust under steam. When the above mentioned work has been satisfactorily completed the vessel in my opinion is eligible for the notification in the Register Book of L.M.C. 11-91. Bilge suction pipes in engine room well made accessible. Stairs raised fitted at the after end of tunnel. Bilge suction pipe fitted in after well Donkey boiler fitted with mountings, examined under steam, and the safety valve adjusted in a satisfactory manner.

H. Stoddart.

Certificate (if required) to be sent to

The amount of Entry Fee .. £ *2 : 0* received by me, *9/5th*
 Special £ *30 : 15*
 Donkey Boiler Fee £

(Travelling Expenses, if any, £) **FRI 11 DEC 1891**

Committee's Minute

+ L.M.C. 11, 91

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



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