

REPORT ON MACHINERY.

26564

No. *6564* Port of *Newcastle* Received at London Office *MON. 16 NOV 1891*
 No. in Survey held at *Newcastle* Date, first Survey *8 July 1891* Last Survey *9 Nov 1891*
 Reg. Book. *S.S. "Minister Sabban Portoliet"* (Number of Visits *191*)
 on the *S.S. "Minister Sabban Portoliet"* Tons { Gross *665* Net *281*
 Master *A.W.C. Opera* Built at *Newcastle* By whom built *J. Dobson & Co* When built *1891*
 Engines made at *Newcastle* By whom made *North Eastern Marine Eng. Co* when made *1891*
 Boilers made at *do* By whom made *do do do* when made *1891*
 Registered Horse Power *130* Owners *Zeland S.S. Co* Port belonging to *Fushing*

ENGINES, &c.—
 Description of Engines *Triple expansion Surface Condensing* No. of Cylinders *3*
 Num. of Cylinders *19. 31. 5-1* Length of Stroke *33* Rev. per minute *90* Point of Cut off, High Pressure *6/7* Low Pressure *5/2*
 Diameter of Screw shaft *9 1/2* Diam. of Tunnel shaft *9* Diam. of Crank shaft journals *9 1/2* Diam. of Crank pin *9 1/2* size of Crank webs *6 1/2 x 13*
 Diameter of screw *12.3* Pitch of screw *14.3* No. of blades *4* state whether moveable *no* total surface *25.5*
 No. of Feed pumps *2* diameter of ditto *3* Stroke *18* Can one be overhauled while the other is at work *yes*
 No. of Bilge pumps *2* diameter of ditto *3* Stroke *18* Can one be overhauled while the other is at work *yes*
 Where do they pump from *Hot well, Tanks, Engine Space, Holds, After well & Sea.*
 No. of Donkey Engines *2* Size of Pumps *7" centrifugal 3 1/2 x 6* Where do they pump from *Hot well, Tanks, Sea*
 After well, Hot well & Engine Space.
 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 *1* and sizes *4* Are they connected to condenser, or to circulating pump *Circulating pump*
 How are the pumps worked *Leads over condenser*
 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*
 How 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*
 Were stern tube, propeller, screw shaft, and all connections examined in dry dock *new keel*
 Is the screw shaft tunnel watertight *—* and fitted with a sluice door *yes* worked from *Upper platform*

BOILERS, &c.—
 No. of Boilers *2* Description *Cylindrical Single ended* Material *Steel* Letter (for record) *—*
 Working Pressure *100 lb* Tested by hydraulic pressure to *320 lb* Date of test *30.9.91* by *CEI 3716*
 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 *—*
 Area of square feet of fire grate surface in each boiler *43* Description of safety valves *Spring* No. to each boiler *2*
 Area of each valve *4.07* 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 *16" Ship side* Diameter of boilers *12.6*
 Thickness of boilers *9.9* description of riveting of shell long. seam *Lap & cross* circum. seams *Lap double* Thickness of shell plates *1 3/4*
 Diameter of rivet holes *1 1/2* whether punched or drilled *Drilled* pitch of rivets *9"* Lap of plating *13 3/8*
 Percentage of strength of longitudinal joint *82.45* working pressure of shell by rules *100* size of manholes in shell *16" x 12"*
 No. of compensating rings *—* No. of Furnaces in each boiler *3* Description of Furnaces *Plain*
 Inside diameter *3.0* length *6.3* thickness of plates *2 1/2* description of joint *RTB Stamps* if rings are fitted *1/2*
 Shortest length between rings *4.3* working pressure of furnace by the rules *100* combustion chamber plating, thickness, sides *3/16* back *5/8* top *9/16*
 No. of stays to ditto, sides *4 1/2* back *8 1/2"* top *7 1/2"* If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *100*
 Diameter of stays at smallest part *1 3/8, 1 1/8* working pressure of ditto by rules *194* end plates in steam space, thickness *1 1/2*
 No. of stays to ditto *18 x 18* how stays are secured *By Washers* working pressure by rules *100* diameter of stays at smallest part *2 3/4*
 working pressure by rules *165* Front plates at bottom, thickness *3/4* Back plates, thickness *3/4*
 Shortest pitch of stays *11"* working pressure by rules *160* Diameter of tubes *3 1/4* pitch of tubes *4 1/2* thickness of tube plates, front *3/4* back *3/4* how stayed *Tubes* pitch of stays *9"* width of water spaces *5"*
 Diameter of Superheater or Steam chest *none* length *—* thickness of plates *—* description of longitudinal joint *—* diam. of rivet holes *—*
 No. 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 *—*



14.11.91 Sent to London 14.11.91

DONKEY BOILER— Description *Vertical with Lig crop takes*
 Made at *Gateshead* by whom made *Blake Chapman & Co* when made *2.10.91* where fixed *Rehrod*
 Working pressure *100 lb* tested by hydraulic pressure to *200 lb* No. of Certificate *3720* fire grate area *19.63* description of safety valves *Spring* No. of safety valves *2* area of each *5.94* if fitted with easing gear *yes* if steam from main boilers can enter the donkey boiler *no* diameter of donkey boiler *6.0* length *11.0* description of riveting *Lap dentle*
 Thickness of shell plates *1 3/4* diameter of rivet holes *1 5/16* whether punched or drilled *Drilled* pitch of rivets *3 3/8* lap of plating *4 3/4*
 per centage of strength of joint *90* thickness of crown plates *1 1/16* stayed by *8 Strap 1 1/16" eff. diam.*
 Diameter of furnace, top *4.8* bottom *5.2* length of furnace *5.3* thickness of plates *5/8* description of joint *Lap Single*
 Thickness of furnace crown plates *9/16* stayed by *Same as shell crown* working pressure of shell by rules *111 lb*
 Working pressure of furnace by rules *130* diameter of uptake *15* thickness of plates *1/2* thickness of water tubes *3/8*

SPARE GEAR. State the articles supplied:— *Propeller shaft and propeller. 2 main bearing bolts & nuts. 2 top end bolts & nuts. 2 bottom end bolts & nuts. 1 set of shaft coupling bolts & nuts. 1 set of feed valves. 1 set of bilge valves. 100 Condenser tubes. nuts bolts & iron assorted.*

The foregoing is a correct description,
 FOR AND ON BEHALF OF THE NORTH EASTERN
 MARINE ENGINEERING COMPANY, LIMITED. *W. Kilvington.* Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been Specially Surveyed during construction the materials & workmanship good & renders the vessel eligible in my opinion to have the Record + L M C 11.91 in the Register Book of the Society.*)

Heating Surface in (2) main boilers = 2640 sq
 U.S.P. as per Rules = 162 H.P.

It is submitted that this is correct for the record + L M C 11.91
16.11.91

Certificate (if required) to be sent to
 The amount of Entry Fee .. £ 2 : : : received by me,
 Special £ 24 : 6 :
 Donkey Boiler Fee £ : : :
10/12/91

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

(Travelling Expenses, if any, £)
 Committee's Minute **TUES. 17 NOV 1891**
+ L M C 11.91

