

REPORT ON MACHINERY.

Port of Glasgow

RECEIVED AT LONDON OFFICE
TUES. APL 22 1902

APR 1902

No. in Survey held at Penryn Date, first Survey 21 June 1901 Last Survey 28 March 1902
 Reg. Book. on the Compania Transatlantica S.S. No 16 "JOSE DE ARAMBURN" Tons 1900
 (Number of Visits 24)
 Master _____ Built at _____ By whom built _____ When built _____
 Engines made at Penryn By whom made Lobnitz & Co Lim when made 1902
 Boilers made at Penryn By whom made Lobnitz & Co Lim when made 1902
 Registered Horse Power _____ Owners _____ Port belonging to _____
 Nom. Horse Power as per Section 28 _____ Is Refrigerating Machinery fitted _____ Is Electric Light fitted _____

ENGINES, &c.—Description of Engine Triple expansion No. of Cylinders three No. of Cranks 3
 Dia. of Cylinders 21" 34" 56" Length of Stroke 36 Revs. per minute _____ Dia. of Screw shaft as per rule 11.7 Lgth. of stern bush 50"
 Dia. of Tunnel shaft as per rule 10 Dia. of Crank shaft journals as per rule 10.5 Dia. of Crank pin 11 1/2" Size of Crank webs 22 x 8" Dia. of thrust shaft under collars 11 1/2" Dia. of screw 13-6" Pitch of screw 14-0 No. of blades 4 State whether moceable solid Total surface 75 sq ft
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 9" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4" Stroke 9" Can one be overhauled while the other is at work yes
 No. of Donkey Engines three Sizes of Pumps 5 1/2" x 4" x 5" 4" x 2 1/2" x 5" 9" x 7 1/2" x 9" No. and size of Suctions connected to both Bilge and Donkey pumps _____
 In Engine Room _____ In Holds, &c. _____
 No. of bilge injections _____ sizes _____ Connected to condenser, or to circulating pump _____ Is a separate donkey suction fitted in Engine room & size _____
 Are all the bilge suction pipes fitted with roses _____ Are the roses in Engine room always accessible _____ Are the sluices on Engine room bulkheads always accessible _____
 Are all connections with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the discharge pipes above or below the deep water line _____
 Are they each fitted with a discharge valve always accessible on the plating of the vessel _____ Are the blow off cocks fitted with a spigot and brass covering plate _____
 What pipes are carried through the bunkers _____ How are they protected _____
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times _____
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges _____
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock _____ Is the screw shaft tunnel watertight _____
 Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.— (Letter for record R) Total Heating Surface of Boilers 3150 sq ft Is forced draft fitted _____
 No. and Description of Boilers 2 single ended return tube Working Pressure 170 lbs Tested by hydraulic pressure to 240 lbs
 Date of test 6/3/02 Can each boiler be worked separately _____ Area of fire grate in each boiler 54 sq ft No. and Description of safety valves to each boiler one pair direct spring Area of each valve 7.07 sq in Pressure to which they are adjusted _____ Are they fitted with easing gear _____
 Smallest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers 14-0 Length 10-3 Material of shell plates steel
 Thickness 1 1/32 Range of tensile strength 27/32 Are they welded or flanged no Descrip. of riveting: cir. seams double lap long. seams triple butt
 Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 8" Lap of plates or width of butt straps 18"
 Per centages of strength of longitudinal joint _____ rivets 98.6 Working pressure of shell by rules 174 lbs Size of manhole in shell 17 x 13"
 _____ plate 84.3 _____
 Size of compensating ring 9 1/2 x 1 1/2 length _____ No. and Description of Furnaces in each boiler 3 Morrison Material steel Outside diameter 40"
 Length of plain part _____ top 6" Thickness of plates _____ crown _____ Description of longitudinal joint welded No. of strengthening rings _____
 bottom 9" _____ bottom 20 _____
 Working pressure of furnace by the rules 185 Combustion chamber plates: Material steel Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 7/8
 Pitch of stays to ditto: Sides 8" x 8" Back 7 1/2" x 8" Top 7 1/2" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 171
 Material of stays iron Diameter at smallest part 1.99 Area supported by each stay 64 sq in Working pressure by rules 232 lbs End plates in steam space: _____
 Material steel Thickness 3/32 Pitch of stays 16 x 16" How are stays secured 27 nuts Working pressure by rules 174 Material of stays steel
 Diameter at smallest part 4.75 Area supported by each stay 256 sq in Working pressure by rules 186 Material of Front plates at bottom steel
 Thickness 1/16 Material of Lower back plate steel Thickness 1/16 Greatest pitch of stays 14 1/2 with 9/16 double Working pressure of plate by rules 302 lbs
 Diameter of tubes 3 1/2" Pitch of tubes 4 1/4" x 4 3/4" Material of tube plates steel Thickness: Front 3/32 Back 1/16 Mean pitch of stays 9 1/2"
 Pitch across wide water spaces 16" with 1/4 double Working pressures by rules 292 x 185 lbs Girders to Chamber tops: Material iron Depth and thickness of girder at centre 7 x 3/16" Length as per rule 25 1/2" Distance apart 7 1/2" Number and pitch of Stays in each (2) 8"
 Working pressure by rules 171 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately _____
 Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____
 If stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____
 Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____

W814-0087

DONKEY BOILER— No. Description *Vertical*
 Made at *Amman* By whom made *Cochran & Co* When made *15/11/01* Where fixed
 Working pressure *80* tested by hydraulic pressure to *160* No. of Certificate *6054* Fire grate area *20 1/4* Description of safety valves *on pair spring*
 No. of safety valves *two* Area of each *7.07* Pressure to which they are adjusted If fitted with casing gear If steam from main boilers can enter the donkey boiler *no*
 Dia. of donkey boiler *6'-6"* Length *14'-0"* Material of shell plates *Steel* Thickness *1/2"* Range of tensile strength *27-32* Descrip. of riveting long. seams *Lap double* Dia. of rivet holes *27/32* Whether punched or drilled *drilled* Pitch of rivets *2 3/4"*
 Lap of plating *4/8* Per centage of strength of joint Rivets *69.1* Thickness of shell crown plates *7/16"* Radius of do. *3'-3"* No. of Stays to do. *none*
 Dia. of stays. Diameter of furnace Top *2'-7 1/4"* Bottom *—* Length of furnace Thickness of furnace plates *19/32* Description of joint *vertical* Thickness of furnace crown plates *19/32* Stayed by Working pressure of shell by rules *107 lbs*
 Working pressure of furnace by rules *113 lbs* Diameter of uptake *17 1/4"* Thickness of uptake plates *9/16"* Thickness of water tubes *—*

SPARE GEAR. State the articles supplied:— *2 top end bolts & nuts, 2 bottom end bolts & nuts, 1 set of coupling bolts, 2 main bearing bolts & nuts, fuel and bilge pump valves bolts & nuts assorted, iron of various sizes, in addition 1 span propeller and shaft complete*

The foregoing is a correct description,
 FOR LOEBNITZ & CO., LIMITED
 Manufacturer.
Fred Solwitz

Dates of Survey while building
 During progress of work in shops— 1901. *Jan. 21. Apr. 4. 9. Aug. 7. 14. 19. 29. Sep. 4. 13. 18. 30. Oct. 21. 22. 23. 24.*
 During erection on board vessel— *30. Nov. 12. 14. 18. 22. Dec. 6. 10. 23. 1902. Jan. 4. 30. Feb. 11. 18. 20. Mar. 3. 6. 10. 14. 17. 28.*
 Total No. of visits *24.* Is the approved plan of main boiler forwarded herewith *yes*
 " " " donkey " " " *no*

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

Material of screw shaft Is the screw shaft fitted with a continuous liner the whole length of the stern tube *no*
 Is the after end of the liner made water tight in the propeller boss If the liner is in more than one length are the joints burned
 If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive
 If two liners are fitted, is the shaft lapped or protected between the liners

To complete this survey the engine and boilers have to be fitted on board the safety valves adjusted under steam and the engine examined whilst at work.

This machinery so far as completed has been built under special survey, the materials and workmanship are of good description.

In my opinion this machinery will be eligible for the above notification when this survey has been completed.

This machinery has now been shipped to Cadix where it is to be fitted on board.

The amount of Entry Fee. . . £ : :
 Special £ *10* : :
 Donkey Boiler Fee . . . £ *10* : :
 Travelling Expenses (if any) £ : :
 When applied for, *See entry on attached report.*
 When received, *£ 10*
14.3.03

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

Committee's Minute *Glasgow. 21 APR 1902*

Assigned *Deferred for completion*

TUES. 16 DEC 1902



Lloyd's Register Foundation