

REPORT ON MACHINERY.

No. 61217

Received at London Office MON. OCT. 23. 1911

Date of writing Report 19 When handed in at Local Office OCT 21 1911 Port of NEWCASTLE ON TYNE.

No. in Survey held at Newcastle on Tyne Date, First Survey 28th Jan 1911 Last Survey 18 October 1911
Reg. Book. on the S.S. "Acajutla" (Number of Visits 27)

Master Built at Walker By whom built Swan Hunter & Wigham Richardson Ltd. When built 1911

Engines made at Walker By whom made Swan Hunter & Wigham Richardson Ltd. when made 1911

Boilers made at Walker By whom made Ditto when made 1911

Registered Horse Power Owners Salvador Railway Co. Port belonging to London.

Nom. Horse Power as per Section 28 174 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 17", 28", 46" Length of Stroke 33" Revs. per minute 114 Dia. of Screw shaft as per rule 9.5" Material of screw shaft steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight
 in the propeller boss Yes 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 Length of stern bush 3'. 3 1/2"
 Dia. of Tunnel shaft as per rule 8.65" Dia. of Crank shaft journals as per rule 9.08" Dia. of Crank pin 9 1/4" Size of Crank webs 14 x 5 1/2" Dia. of thrust shaft under
 collars 9 1/2" Dia. of screw 11.6" Pitch of Screw 11.6" No. of Blades 4 State whether moveable Yes Total surface 40 ft²
 No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 19" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 19" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps B. - 6 x 6 x 6; F. - 6 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3 of 2 1/2" In Holds, &c. 2 of 2 1/2" to each

No. of Bilge Injections 1 sizes 5" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible
 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 Hold suction How are they protected Strong Wood casings
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Dates of examination of completion of fitting of Sea Connections 21.9.11 of Stern Tube 21.9.11 Screw shaft and Propeller 21.9.11
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

BOILERS, &c.—(Letter for record r) Manufacturers of Steel J. Spencer & Sons

Total Heating Surface of Boilers 3268 ft² Is Forced Draft fitted no No. and Description of Boilers 2 S.E. Cyl^{rs} Multi-
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 25.9.11 No. of Certificate 8203
 Can each boiler be worked separately Yes Area of fire grate in each boiler 53.5 ft² No. and Description of Safety Valves to
 each boiler 2 spring patent Area of each valve 5.93 ft² Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 13.05" Length 10.6" Material of shell plates steel
 Thickness 1 3/16" Range of tensile strength 28 3/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 4 x lap.
 long. seams L x d 2 S. Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 9/16" Lap of plates or width of butt straps 18 3/8"
 Per centages of strength of longitudinal joint rivets 89.8 plate 85.4 Working pressure of shell by rules 208 lbs Size of manhole in shell 16 x 12"
 Size of compensating ring 9 x 1 3/16" No. and Description of Furnaces in each boiler 3 Morrison Material steel Outside diameter 40 1/4"
 Length of plain part top bottom Thickness of plates crown bottom Description of longitudinal joint welded No. of strengthening rings
 Working pressure of furnace by the rules 251 lbs Combustion chamber plates: Material steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 7/8"
 Pitch of stays to ditto: Sides 8 1/2 x 10 Back 8 1/2 x 10 Top 10 x 8 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 189 lbs
 Material of stays iron Diameter at smallest part 2.36" Area supported by each stay 85 ft² Working pressure by rules 208 lbs End plates in steam space:
 Material steel Thickness 1 5/32" Pitch of stays 19 1/2 x 17 1/2 How are stays secured d x w. Working pressure by rules 186 lbs Material of stays steel
 Diameter at smallest part 7.24" Area supported by each stay 363.125 ft² Working pressure by rules 207 lbs Material of Front plates at bottom steel
 Thickness 1" Material of Lower back plate steel Thickness 29/32 Greatest pitch of stays as per plan Working pressure of plate by rules 190 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2 x 4 3/8 Material of tube plates steel Thickness: Front 1" Back 13/16" Mean pitch of stays 13 1/2 x 8 3/4"
 Pitch across wide water spaces 14 1/4" Working pressures by rules 189 lbs Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 9 1/2 x 1 1/4" Length as per rule 2.82" Distance apart 8" Number and pitch of stays in each 2-10"
 Working pressure by rules 183 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked
 separately Yes Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet
 holes Yes Pitch of rivets Yes Working pressure of shell by rules Yes Diameter of flue Yes Material of flue plates Yes Thickness Yes
 If stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes
 Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

VERTICAL DONKEY BOILER—Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— 2 Top end, 2 bottom end, 2 Main bearing & set of Coupling Bolts
1 set feed & bilge pump Valves, 1 set Feed & Ballast donkey Valves, 2 Propeller blades, 2 sets Air pump Valves
1 spare bottom end complete, 2 Feed check Valves, 1 Air pump rod & bucket, Bolts & nuts as wanted
and iron of sizes, 1 set Ring for each piston, 1 Impeller, 1 slide Valve rod & radial block, 1 set
strap, 1 Pump link - Propeller Boos.-

The foregoing is a correct description,

SWAN HUNTER & WIGHAM RICHARDSON, LTD.

Manufacturer. _____

1911

Dates of Survey while building { During progress of work in shops - - - } Jun. 28. Jul. 4. 12. 19. 20. 25. Aug. 3. 8. 9. 10. 29. 31. Sep. 6. 14. 19. 21. 23. 25. 26.
{ During erection on board vessel - - - } Oct. 2. 6. 7. 9. 11. 13. 14. 18.
Total No. of visits. 27

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 21.9.11 Slides 14.9.11 Covers 14.9.11 Pistons 6.9.11 Rods 14.9.11
Connecting rods 6.9.11 Crank shaft 12.7.11 Thrust shaft 14.9.11 Tunnel shafts 6.9.11 Screw shaft 6.9.11 Propeller 21.9.11
Stern tube 25.7.11 Steam pipes tested 7.10.11 Engine and boiler seatings 21.9.11 Engines holding down bolts 6.10.11
Completion of pumping arrangements 13.10.11 Boilers fixed 6.10.11 Engines tried under steam 14.10.11
Main boiler safety valves adjusted 13.10.11 Thickness of adjusting washers P. P $\frac{1}{2}$, P. S. $\frac{13}{32}$, S. P. $\frac{13}{32}$, S. S. $\frac{3}{8}$
Material of Crank shaft steel Identification Mark on Do. 739D, F.C. Material of Thrust shaft steel Identification Mark on Do. RWC 14.
Material of Tunnel shafts steel Identification Marks on Do. RWC 6.9.11 Material of Screw shafts steel Identification Marks on Do. RWC 6.9.
Material of Steam Pipes Copper Test pressure 360 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. The Machinery of this vessel has been constructed under special survey, the workmanship and materials used are both of good quality, the Engines have been tried under steam and worked satisfactorily, both ahead and astern.

I beg to recommend that this vessel is eligible in my opinion to have the record **L.M.C. 10.11** in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10.11.

The amount of Entry Fee .. £ 2 : 0 : 0 When applied for, OCT 21 1911
Special .. £ 26 : 2 : 0
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : : When received, 23. 10. 1911

Committee's Minute

Assigned

TUE. OCT 24 1911

+ L.M.C. 10.11

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



Lloyd's Register Foundation