

## REPORT ON MACHINERY.

Port of Glasgow

TUES. 3 JUL 1900

Received at London Office

No. in Survey held at Glasgow Date first Survey 13 Decr '99 Last Survey 23 June 1900  
 Reg. Book. 160 on the S.S. Ocamo in Laymouth Castle (Number of Visits 52)  
 Master Forbes Built at Glasgow By whom built Barclay Curle & Co Tons { Gross 1827  
 Engines made at Glasgow By whom made Barclay Curle & Co when made 1877  
 Boilers made at Glasgow By whom made D. & H. Henderson & Co. Ltd when made 1900  
 Registered Horse Power 185 Owners Pickford & Black Port belonging to London  
 Nom. Hors. Power as per Section 28 229.1 Is Refrigerating Machinery fitted No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2  
 Dia. of Cylinders 36 3/8" x 64" Length of Stroke 39 Revs. per minute 70 Dia. of Screw shaft as per rule 11 3/4" Lgth. of stern bush 45"  
 Dia. of Tunnel shaft as per rule 10 3/4" Dia. of Crank shaft journals as per rule 11 3/8" Dia. of Crank pin 11 3/8" Size of Crank webs ✓ Dia. of thrust shaft under collars 11 1/2" Dia. of screw 16-0" Pitch of screw 18-6" No. of blades 4 State whether moveable yes Total surface 62 sq feet  
 No. of Feed pumps one Diameter of ditto 5 1/2" Stroke 22" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps one Diameter of ditto 5 1/2" Stroke 22" Can one be overhauled while the other is at work ✓  
 No. of Donkey Engines Two Sizes of Pumps 6 x 4 1/2 x 9" No. and size of Suctions connected to both Bilge and Donkey pumps 9 x 4 1/2 x 10"  
 In Engine Room four, 3" In Holds, &c. one 3" in No. 1. 2 & 3 holds  
respectively and one 3" in tunnel well.  
 No. of bilge injections 1 sizes 4" Connected to condenser, to circulating pump Cir Is a separate donkey suction fitted in Engine room & size yes, 3"  
 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 below  
 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 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  
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock 30/5/00 Is the screw shaft tunnel watertight yes  
 Is it fitted with a watertight door yes worked from Engine room platform

BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 4330 sq ft Is forced draft fitted No  
 No. and Description of Boilers One Double Ended Multitubular Working Pressure 80 lb Tested by hydraulic pressure to 160 lb  
 Date of test 25/4/00 Can each boiler be worked separately ✓ Area of fire grate in each boiler 150 sq ft No. and Description of safety valves to each boiler Two, Cockburn's Area of each valve 30.67 sq in Pressure to which they are adjusted 84 lb Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 17'-0" Length 16'-0" Material of shell plates Steel  
 Thickness 13/16" Range of tensile strength 27/32 Are they welded or flanged neither Descrip. of riveting: cir. seams double riveted Lap long. seams single riveted  
 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 4 1/2" Lap of plates 11 7/8"  
 Per centages of strength of longitudinal joint rivets 96.4 Working pressure of shell by rules 83 lb Size of manhole in shell 16" x 12"  
 Size of compensating ring 34 x 30 x 2 No. and Description of Furnaces in each boiler 8. Fox's Material Steel Outside diameter 48"  
 Length of plain part top 5 1/2" Thickness of plates crown 3/8" Description of longitudinal joint Welded No. of strengthening rings none  
 Working pressure of furnace by the rules 83 lb Combustion chamber plates: Material Steel Thickness: Sides 1 1/32" Back ✓ Top 15/32" Bottom 3/4"  
 Pitch of stays to ditto: Sides 9 x 9" Back ✓ Top 9 x 9" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 83 lb  
 Material of stays Steel Diameter at smallest part 930" Area supported by each stay 81 sq in Working pressure by rules 102 End plates in steam space: Material Steel Thickness 13/16" Pitch of stays 18 x 17" How are stays secured Double nuts Working pressure by rules 101 lb Material of stays Steel  
 Diameter at smallest part 3030" Area supported by each stay 306 sq in Working pressure by rules 99 lb Material of Front plates at bottom Steel  
 Thickness 1 1/16" Material of Lower back plate Steel Thickness 1 1/16" Greatest pitch of stays 14 1/4" Working pressure of plate by rules 157 lb  
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 13/16" Back 9/16" Mean pitch of stays 12"  
 Pitch across wide water spaces 14 1/2" Working pressures by rules 112 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8" x 2" Length as per rule 45" Distance apart 9" Number and pitch of Stays in each four, 9"  
 Working pressure by rules 96 lb Superheater on Steam chest; how connected to boiler Riveted Can the superheater be shut off and the boiler worked separately ✓ Diameter 4'-0" Length 12'-0" Thickness of shell plates 3/8" Material Steel Description of longitudinal joint SR Lap Diam. of rivet holes 7/8" Pitch of rivets 2 1/4" Working pressure of shell by rules 101 Diameter of flue ✓ Material of flue plates ✓ Thickness ✓  
 If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness 3/8" How stayed Spherical  
 Working pressure of end plates 202 lb Area of safety valves to superheater ✓ Are they fitted with easing gear ✓



DONKEY BOILER— No. Description *Open Patent Vertical*  
Made at *Arman* By whom made *Cochran & Co* When made *1900* Where fixed *Stockholm recess.*  
Working pressure *80* tested by hydraulic pressure to *160* No. of Certificate *256* Fire grate area *256* Description of safety valves *Direct spring*  
No. of safety valves *2* Area of each *7.070* Pressure to which they are adjusted *84 lb* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *7'-0"* Length *14'-6"* Material of shell plates *Steel* Thickness *15/32"* Range of tensile strength *27/32* Descrip. of riveting long. seams *Double* Dia. of rivet holes *13/16"* Whether punched or drilled *Drilled* Pitch of rivets *2 13/16"*  
Lap of plating *4 1/2"* Per centage of strength of joint *77.6* Thickness of shell crown plates *13/32"* Radius of do. *4.2"* No. of Stays to do. *None*  
Dia. of stays *1"* Diameter of furnace Top *6'-0"* Bottom *✓* Length of furnace *✓* Thickness of furnace plates *9/16"* Description of joint *Riveted* Thickness of furnace crown plates *5/8"* Stayed by *None* Working pressure of shell by rules *89 lb*  
Working pressure of furnace by rules *104 lb* Diameter of uptake *2 1/2"* Thickness of uptake plates *25/32" x 7/8"* Thickness of water tubes *1/4"*  
SPARE GEAR. State the articles supplied:— *As required by rules, also one air pump crosshead & brasses.*

The foregoing is a correct description,  
Manufacturer. ✓

Dates of Survey { During progress of work in shops— 1899: Dec. 13. 19. 27. 1900: Jan. 16. 18. 19. 23. 30. Feb. 6. 13. 20. Mar. 6. 8. 15. 16. 21. 24. 30. Apr. 3. 9. 12.  
while building { During erection on board vessel— 17. 18. 19. 20. 23. 26. 27. 28. May. 1. 2. 7. 8. 9. 10. 11. 15. 16. 22. 25. 30. 31. June. 1. 2. 8. 12. 13. 15. 18. 20. 21. 23.  
Total No. of visits 52.  
Is the approved plan of main boiler forwarded herewith *yes*  
" " donkey " *no*

General Remarks (State quality of workmanship, opinions as to class, &c. *New main and donkey boilers built under special survey have been securely fitted on board, the material and workmanship being of good quality, The engines excepting (bed plate & condenser) were removed to the works of Messrs Barclay Curle & Co Ltd and thoroughly overhauled. New thrust tunnel and screw shafts fitted, new brasses fitted in bed plate, stools fitted between bottom of bed plate and top of keelson. New L P cylinder, piston and piston rod fitted. H P cylinder bored out, new piston, piston rod and crosshead fitted, crank shaft and all parts of machinery opened up and examined. When vessel was in Dry Dock. The propeller shaft was drawn in and the sea cocks opened up and examined. Found same in good condition. Stern bush re-fitted with wood. (This propeller shaft is being carried as spare gear).*

*One new Hen's feed pump, two new donkey pumps, and one new donkey boiler feed pump fitted. new bilge pipes fitted in all holds and engine space, steam pipes altered & tested to 16 lb per sq in and safety valves of both boilers adjusted to 84 lb per square inch.*

*The machinery of this vessel is now in good condition, a satisfactory trial having been run (speed 13 knots), and is now in our opinion eligible for record of N.B 6-00. L.M.C 6-00 (under). N.D.B 6-00 in register book, with the following rotations altered to (cylinders 36 3/8 & 64 Main & Donkey boiler pressures 80 lbs per sq in and eight Fox's furnaces).*

*One boiler plan and forging report now forwarded.*

The amount of Entry Fee. £ : :  
Special Less 10% Discount. £ 5 : 10  
New ~~Boiler~~ Fee £ 7 : 11  
Travelling Expenses (if any) £ 3 : 3  
19 : 41

When applied for, 2/7/1900  
When received, 27/12/1900  
George Murdoch & James Morrison  
Engineers Surveyor to Lloyd's Register of British & Foreign Shipping.  
AUG 1900

Committee's Minute Glasgow, 2 JUL 1900  
Assigned L.M.C 6.00. N.B 6.00 N.D.B. 6.00  
(when fees are paid)  
TUES. 20 JAN 1901  
FRI. 16 JAN 1903  
TUES. 6 OCT 1903  
TUES. 3 NOV 1903



Port of *Glasgow*

Continuation of Report No. 18085 dated 23-6-00 on the

Steamer "Taymouth Castle", now named "Ocampo"  
plates in B strake between frames. the double reverse frames  
on floors renewed, and the reverse frames between tween deck  
and Orlop beams in bunker space part renewed and  
doubled. Bunker casings and Fidley casings renewed.  
one deck plate of upper deck on port side in way of boiler  
openings renewed.

The Holds and peaks have been cleared and examined.  
a large portion of the ceiling removed in holds, twenty  
two floors in No. 2 Hold and twenty four floors in No. 3  
Hold doubled at middle line on account of being worn  
at limber holes, the reverse frames in No. 3 Hold between  
side intercostal keelsons fitted with doubling angles.  
a few broken rivets in fore peak renewed.

Seak upper deck excepting a small portion at ends  
renewed with 3½" pitch pine over deck plating, and 4" thick  
where clear of deck plating.

Bottom of vessel cleaned and recoated, two lower rudder  
pin trees renewed, a shoe piece fitted to fore foot of stern.

Alterations - Masts taken out and shortened, new rigging  
fitted to same. The Monkey Forecastle has been made into a top-  
gallant forecastle 7' high by scarphing new frames to the  
short ones and the forecastle extended twenty feet with  
frames bracketed to deck, the total length of forecastle being  
43'. This alteration does not affect the equipment letter  
of vessel.

A Saloon House 46' in length has been fitted, at  
after end of vessel, the coaming plates of same being  
connected with angle to fore and aft tie plating and  
athwartship plating on beams; four additional pillars  
fitted to upper deck beams in way of saloon house.  
bulwark plating fitted in lieu of open rails and  
stanchions at after end of vessel.

A side wing house 14 feet long fitted on each side  
of vessel abreast engines with side beams fitted between  
same and engine basings.

Vessel has been fitted with an installation of  
Electric Light

#### Amended Tonnage of vessel

Under deck	1789.64	Propelling Power	611.07
Forecastle	21.3	Crew space	54.16
Round House	77.68	Act. 94	15.94
Side "	20.96		681.17
Gross =	1909.58	Net Reg =	1228.41



Port of GlasgowContinuation of Report No. 18085 dated 23-6-00 on the

Steamer "Jaysmouth Castle" now named "Camo"

A new bow anchor has been supplied to replace the  
 one too light - weight 33. 3. 6 lbs. Rule 32. 0. 0  
 Stock 7. 2. 21

Test certificate No. 4806 Glasgow 17<sup>th</sup> May 1900 G. Seddouse  
 Test. 31. 8. 3. 0  
 L. C. 9. 0. 0  
 Rept.

With regard to the chain cables of this vessel, the owners intend ranging them at Halifax and have same carefully remeasured. Mr. Pickford one of the owners informing me that the worst part of the cable is fully  $\frac{4}{5}$  the original sectional area and that the Surveyor at Halifax has not taken a mean of the diameters at the worn part of link and wishes him to be informed that the mean of the diameters should be taken for the sectional area. Should any of the cable be not of the Rule requirements the owners will renew same.

The cables would have been ranged and further examd. at this port, but owing to the death of the Marine Superintendent, Capt. Broall, on vessels arrival here, this got overlooked before the steam was cut off for the renewal of boilers, and vessel was without steam until just before she sailed.

Vessel has now sailed for Halifax and the Halifax Surveyor advised accordingly.

By H. J. D.

Halifax Report No. 241 is returned herewith.