

REPORT ON MACHINERY.

Port of Glasgow

Received at London Office WES 5 DEC 1905

No. in Survey held at Glasgow Date, first Survey 13th April Last Survey 14th Nov: 1905
 Reg. Book. Sup. 63 on the Steer S.S. "Commandant" (Number of Visits 270)
 Master Glasgow Built at Glasgow By whom built Messrs J. Shields & Sons When built 1905
 Engines made at Glasgow By whom made Mr James Ritchie (No 24) when made 1905
 Boilers made at Glasgow By whom made Messrs Young & Lawson (No 675) when made 1905
 Registered Horse Power 56 Owners Coasting Steamship, Ltd. Port belonging to Glasgow
 Nom. Horse Power as per Section 28 56 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Compound No. of Cylinders Two No. of Cranks Two
 Dia. of Cylinders 15" 32" Length of Stroke 24" Revs. per minute 125 Dia. of Screw shaft as per rule 6.87 Material of screw shaft Iron
 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 Solid m. shaft If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 2.6" dia. in.
 Dia. of Tunnel shaft as per rule 6.43 Dia. of Crank shaft journals as per rule 6.45 Dia. of Crank pin 7" Size of Crank webs 5" shape Dia. of thrust shaft under collars 7" Dia. of screw 7.9 Pitch of screw 10.6 No. of blades 4 State whether moveable No Total surface 27.6
 No. of Feed pumps 1 Diameter of ditto 3" Stroke 12" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 3" Stroke 12" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines One Sizes of Pumps 6" x 4" x 6" Dep. No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room One 2" In Holds, &c. Fore peak 2" Hold 2" ✓

No. of bilge injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size Yes 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 None
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Larger valves; smaller Cocks.
 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 Inward suction How are they protected Wooden casing
 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 New hull Is the screw shaft tunnel watertight Machy. aft.
 Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—No. of Certificate 7832 (Letter for record S) Total Heating Surface of Boiler 1030' Is forced draft fitted No.
 No. and Description of Boilers One Single Ended. Working Pressure 130 lb Tested by hydraulic pressure to 260 lb
 Date of test 27.10.05 Can each boiler be worked separately ✓ Area of fire grate in each boiler 42' No. and Description of safety valves to each boiler Two Direct Spring Area of each valve 9.62' Pressure to which they are adjusted 135 lb Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork Seven ft. Mean dia. of boilers 11' 0" Length 10' 0" Material of shell plates Steel
 Thickness 3/4" Range of tensile strength 27-32 tons Are they welded or flanged No. Descrip. of riveting: cir. seams Single riv. long. seams Double shape double nut
 Diameter of rivet holes in long. seams 15/16" Pitch of rivets 6" x 3" Lap of plates or width of butt straps 14 3/4" x 5/8"
 Percentages of strength of longitudinal joint rivets 91.2 Working pressure of shell by rules 134 lb Size of manhole in shell 16" x 12"
 Size of compensating ring Wicks pat. No. and Description of Furnaces in each boiler 2 Morrison Material Steel Outside diameter 41 1/2"
 Length of plain part top ✓ Thickness of plates crown 7/16" Description of longitudinal joint Welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 151 lb Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 9/16"
 Pitch of stays to ditto: Sides 8 x 8 Back 8 x 7 1/2 Top 9 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 151
 Material of stays Steel Diameter at smallest part 1.27 Area supported by each stay 72" Working pressure by rules 141 End plates in steam space: Material Steel Thickness 27/32 Pitch of stays 16 x 15 1/4 How are stays secured Double nuts Working pressure by rules 130 lb Material of stays Steel
 Diameter at smallest part 3 1/4" Area supported by each stay 228" Working pressure by rules 150 Material of Front plates at bottom Steel
 Thickness 5/8" Material of Lower back plate Steel Thickness 9/16" Greatest pitch of stays 15" wide sp. Working pressure of plate by rules 130
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 5" Material of tube plates Steel Thickness: Front 5/8" Back 13/16" Mean pitch of stays 10"
 Pitch across wide water spaces 15 1/2" Working pressures by rules 130 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10 1/2" x 3 1/2" plus 9/16" doubling Length as per rule 28 5/8 Distance apart 9" x 6" Number and pitch of Stays in each Two at 8"
 Working pressure by rules 156 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

If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the Ship?

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23314

DONKEY BOILER— No. *None* Description

Made at _____ By whom made _____ Date of test _____ Where fixed _____

Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ 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 _____ 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 _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *Two Top end & two bottom end connecting rod bolts. 2 Main bearing bolts. Set coupling bolts. Feed & bilge pump valves. Assorted bolts & nuts. Bolts & condenser tubes. Assorted iron & bolts & nuts.*

The foregoing is a correct description,

Manufacturer. *P. James Ritchie & Brown*

Dates of Survey while building { During progress of work in shops - - } *1900: Apr 13. May 10. 20. Jun 19. 20. July 11. 12. 26. Aug. 2. 8. 14. 23. 24. 28. 29.*

{ During erection on board vessel - - } *Sep 7. 12. 19. Oct 10. 11. 17. 23. 26. 27. 31. Nov. 2. 12. 14.*

Total No. of visits *28* Is the approved plan of main boiler forwarded herewith No. *Boiler plan forwarded with report S.S. "Colonel" Hls Rep No. 23248*

" " " donkey " " "

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

The engines & boiler have been made & fitted under special survey in accordance with the approved plan of the boiler. The workmanship is good. It is submitted that the vessel is eligible for the record of + M.C.H.O.S. in the Register.

It is submitted that this vessel is eligible for THE RECORD H.L.M.C. 11.05

Paul
6.12.05
A.S.
6.12.05

The amount of Entry Fee. . . £ 1 : - : When applied for, _____

Special £ 8 . 0 : -4 DEC 1905

Donkey Boiler Fee £ : : When received, _____

Travelling Expenses (if any) £ : : _____

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

Committee's Minute *Glasgow - 4 DEC 1905*

Assigned *+ A.M.C. 11.05.*

MACHINERY CERTIFICATE WRITTEN, 5-12-05



Certificate (if required) to be sent to the Surveyors are requested not to write on or below the space for Committee's Minute.