

REPORT ON MACHINERY.

TUES: 19 JUL 1898

Port of Glasgow

Received at London Office

No. in Survey held at
Reg. Book.

Saisley & Glasgow

Date, first Survey 15th April 1898 Last Survey 12th July 1898

(Number of Visits 12)

on the S.S. "PRINCESS LOUISE."

Tons { Gross 105.8
Net 16.93

Master A. Patterson Built at Glasgow By whom built Ritchie, Graham & Milne When built 1898

Engines made at Saisley By whom made Campbell & Calderwood when made 1898

Boilers made at Glasgow By whom made A. Nicholson when made 1898

Registered Horse Power _____ Owners Alexander Patterson Port belonging to Glasgow.

Nom. Horse Power as per Section 28 35

Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Compound surface condensing of Cylinders 2 No. of Cranks 2

Diameter of Cylinders 13" & 26" Length of Stroke 18" Revolutions per minute 135 Diameter of Screw shaft 5 1/4"
as per rule 4.55 38
as fitted 5" Diameter of Crank shaft journals 5" Diameter of Crank pin 5" Size of Crank webs 3/4 x 9

Diameter of screw 6-6" Pitch of screw 8-6" No. of blades 3 State whether moveable no Total surface 12"

No. of Feed pumps 1 Diameter of ditto 1 1/4" Stroke 9" Can one be overhauled while the other is at work

No. of Bilge pumps 1 Diameter of ditto 1 1/4" Stroke 9" Can one be overhauled while the other is at work

No. of Donkey Engines one Sizes of Pumps 2 1/2 x 5 double acting No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room one 2" stokehold one 2" In Holds, &c. one in Fore hold 2"
one in after hold 2"

No. of bilge injections 1 sizes 3 Connected to condenser, or to circulating pump pumps 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 valves & 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

How are they protected ✓

Are pipes carried through the bunkers None

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yes

Are bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yes

Were stern tube, propeller, screw shaft, and all connections examined in dry dock before launching the screw shaft tunnel watertight none

Is it fitted with a watertight door none worked from ✓

BOILERS, &c.— (Letter for record (5)) Total Heating Surface of Boilers 720 sq. ft. Is forced draft fitted no.

Number and Description of Boilers one multitubular Working Pressure 120 lbs Tested by hydraulic pressure to 240

Can each boiler be worked separately Area of fire grate in each boiler 26" No. and Description of safety valves to
 Boiler 2 Cockran's patent Area of each valve 4.9" Pressure to which they are adjusted 123 lbs Are they fitted

Smallest distance between boilers or uptakes and bunkers or woodwork 9 1/2" Mean diameter of boilers 9'-0"

Material of shell plates Steel Thickness 3/32" Description of riveting: circum. seams Lap. double long. seams D. Butt. S.P.

Diameter of rivet holes in long. seams 13/16" Pitch of rivets 4 1/8" Lap of plates or width of butt straps 12 3/4"

Per centages of strength of longitudinal joint
 rivets 86 Working pressure of shell by rules 132 Size of manhole in shell 16 x 12"
 plate 80.3

Size of compensating ring McReis No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 33 1/2"

Length of plain part 5'-6" Thickness of plates 17/32" Description of longitudinal joint welded No. of strengthening rings part ring

Working pressure of furnace by the rules 130 Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"

Pitch of stays to ditto: Sides 8 x 8" Back 8 x 8" Top 8 x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 120 lbs

Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 64" Working pressure by rules 155" End plates in steam space:

Material Steel Thickness 5/8 + 5/8" Pitch of stays 16 x 13 1/2" How are stays secured 9 nuts Working pressure by rules 182 Material of stays Steel

Diameter at smallest part 2 1/2" Area supported by each stay 216" Working pressure by rules 155" Material of Front plates at bottom Steel

Thickness 5/8" Material of Lower back plate Steel Thickness 9/16" Greatest pitch of stays 13" Working pressure of plate by rules 139

Diameter of tubes 3" Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates Steel Thickness: Front 5/8" Back 5/8" Mean pitch of stays 10-375

Pitch across wide water spaces 13" Working pressures by rules 160 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 6 1/2 x 2 1/2 x 2 Length as per rule 30" Distance apart 8" Number and pitch of Stays in each 2-8"

Working pressure by rules 189 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 casing gear _____



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DONKEY BOILER— Description *None*

Made at _____ By whom made _____ When made _____ 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 _____

Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____

Description of riveting long. seams _____ Diameter 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 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:—

The foregoing is a correct description,

Manufacturer.

Campbell & Calderwood

Dates of Survey while building

During progress of work in shops— 1898 April 15, May 5, 9, 23, 30, June 22, 30, July 4, 8, 9, 11, 12

During erection on board vessel—

Total No. of visits 12

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

ENGINES—Length of stern bush *21"* Diameter of crank shaft journals *as per rule 5.10* as fitted *5"* Diameter of thrust shaft under collars *5"*

BOILERS—Range of tensile strength *27 5 32* Are they welded or flanged _____ **DONKEY BOILERS**—No. Range of tensile strength

Is the approved plan of main boiler forwarded herewith *Yes* Is the approved plan of donkey boiler forwarded herewith

The Machinery of this vessel has been specially surveyed, of good material & workmanship, has been securely fitted on board, and is in our opinion eligible to have the record of survey **+L.M.C.7.98** inserted in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. **+L.M.C.7.98**

JW
19/7/98

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

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

Special £ 8 : " : " 18.7.98

Donkey Boiler Fee £ " : " : " When received, _____

Travelling Expenses (if any) £ " : " : " 20.7.98

J.W. Dimmock & Co
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI. 22 JUL 1898

MACHINERY CERTIFICATE WRITTEN

Assigned

+L.M.C.7.98



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