

REPORT ON MACHINERY.

No. 12646

Port of Glasgow

SAT. 30 DEC 1893

No. in Survey held at Glasgow
Reg. Book.

Date, first Survey 1st Decr

Last Survey 15th Decr 1893

(Number of Visits 2)

405 on the

Glasgow

A. P. Loch & Co.

Tons Gross 104
Net 58

Master

Built at Glasgow

By whom built W. Shaw & Sons

When built 1877

Engines made at

Glasgow

By whom made Ross & Duncan

when made Comp 1882

Boilers made at

Glasgow

By whom made Lindsay Burnet & Co

when made 1893

Registered Horse Power 20

Owners J. G. Stewart

Port belonging to Glasgow

Nom. Horse Power as per Section 28

unclassified

ENGINES, &c. — Description of Engines No. of Cylinders

Diameter of Cylinders Length of Stroke Revolutions per minute Diameter of Screw shaft as per rule as fitted

Diameter of Tunnel shaft as per rule as fitted Diameter of Crank shaft journals Diameter of Crank pin Size of Crank webs

Diameter of screw Pitch of screw No. of blades State whether moveable Total surface

No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Donkey Engines Sizes of Pumps 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 S) Total Heating Surface of Boilers 295.709 sq ft

No. and Description of Boilers One cylindrical multitubular Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs

Date of test 15/12/93 Can each boiler be worked separately Area of fire grate in each boiler 11.8 sq ft No. and Description of safety valves to each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear Smallest distance between boilers or uptakes and bunkers or woodwork Mean diameter of boilers 7'-0"

Length 8'-0" Material of shell plates Steel Thickness 15/32 Description of riveting: circum. seams lap single long. seams lap double

Diameter of rivet holes in long. seams 13/16 Pitch of rivets 2 3/4 Lap of plates or width of butt straps 1 1/2

Per centages of strength of longitudinal joint rivets 68.3 Working pressure of shell by rules 82.7 lbs Size of manhole in shell 11" x 15" plate 70.0

Size of compensating ring 5 1/2 x 15/32 No. and Description of Furnaces in each boiler one plain Material Steel Outside diameter 39"

Length of plain part top 5'-3 1/8 bottom 5'-8 1/8 Thickness of plates crown 7/16 bottom 3/32 Description of longitudinal joint lapped No. of strengthening rings none

Working pressure of furnace by the rules 91 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16 Back 9/16 Top 9/16 Bottom 9/16

Pitch of stays to ditto: Sides 12 1/2 x 11 Back 11 x 11 Top 12 1/2 x 11 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 82 lbs

Material of stays Steel Diameter at smallest part 1.44 Area supported by each stay 187 1/2 Working pressure by rules 83 lbs End plates in steam space: Material Steel Thickness 5/8 Pitch of stays 13 1/2 x 13 How are stays secured double nuts & washers Working pressure by rules 101 lbs Material of stays Steel Diameter at smallest part 2.03 Area supported by each stay 189 Working pressure by rules 96 lbs Material of Front plates at bottom Steel Thickness 5/8 Material of Lower back plate Steel Thickness 5/8 Greatest pitch of stays 11" x 13" Working pressure of plate by rules 94 lbs

Diameter of tubes 3" Pitch of tubes 4" x 4" Material of tube plates Steel Thickness: Front 5/8 Back 19/32 Mean pitch of stays 11"

Pitch across wide water spaces 13" Working pressures by rules 104 & 82 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 x 11/16 Length as per rule 24" Distance apart 11 1/2" Number and pitch of Stays in each one 72 1/2"

Working pressure by rules 82 lbs Superheater or Steam chest; how connected to boiler flanged Can the superheater be shut off and the boiler worked separately Diameter 2'-6" Length 2'-9" Thickness of shell plates 3/8 Material Steel Description of longitudinal joint lap SR Diam. of rivet holes 13/16 Pitch of rivets 1 7/8 Working pressure of shell by rules 139 lbs Diameter of flue plates 1 1/2 Thickness 1 1/2

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness 1 1/2 How stayed dished

Working pressure of end plates 209 lbs Area of safety valves to superheater Are they fitted with easing gear

12646 lbs

DONKEY BOILER— Description

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. _____

Plates _____

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:—

The foregoing is a correct description,
Manufacturer.

Lindsay Burnett & Co

General Remarks (State quality of workmanship, opinions as to class, &c. *A steel main boiler of the dimensions given on the other side has been constructed under special survey, the materials and workmanship are of good description and a hydraulic test of 160 lbs per square inch has been applied with satisfactory results. This boiler is intended for the unclamped vessel P.P. Loch Etive. A photo print of the boiler is appended.*)

As this Boiler is not intended for a Classed Vessel, It is submitted that no further action be taken in the case - unless to make the record NB with date in black, when it has been fitted on board -

*W.A.
30-12-93*

Mr W J G 2/1/94

It is submitted that the Record NB 1-94 in black be recorded

*W.A.
6-2-94*

Certificate (if required) to be sent to _____

The amount of Entry Fee..	£	:	:	When applied for,
Special	£	2	2	25/12/93
Donkey Boiler Fee .. .	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	29/12/93

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

Committee's Minute

Assigned *Not for Committee*



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Foundation

(The Surveys are requested not to write on or below the space for Committee's Minute.)