

REPORT ON MACHINERY.

No. 13688

Port of Glasgow

No. in Survey held at Glasgow
Reg. Book.

Date, first Survey 20th Sept 1894 Last Survey 17th May 1895
(Number of Visits 55)

on the S.S. "Kemploc"
Master Thomson

Built at Glasgow By whom built Barclay Curle & Co. When built 1895-
Gross 3000
Net 1933

Engines made at Glasgow By whom made " " " " when made 1895-

Boilers made at " By whom made " " " " when made 1895-

Registered Horse Power 285 Owners W. Thomson & Co. Port belonging to Leith

Nom. Horse Power as per Section 28 298

ENGINES, &c. — Description of Engines Triple No. of Cylinders 3

Diameter of Cylinders 25" 41" 64" Length of Stroke 42" Revolutions per minute 48 Diameter of Screw shaft 11 1/2" as per rule 11 3/4" as fitted 18 1/2"

Diameter of Tunnel shaft 12 1/2" as fitted 12 1/2" Diameter of Crank shaft journals 13" Diameter of Crank pin 13" Size of Crank webs 8" x 18 1/2"

Diameter of screw 16" 6" Pitch of screw 14 1/2" No. of blades 4 State whether moveable Yes Total surface 40 sq ft

No. of Feed pumps 2 Diameter of ditto 3 3/4" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 3/4" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Donkey Engines Three Sizes of Pumps 6" x 4" x 6" Duplex No. and size of Suctions connected to both Bilge and Donkey pumps 10" x 10" x 10" Ballast

In Engine Room 9" x 4" x 18" Holds, &c.

As per approved plan

No. of bilge injections 6" Connected to circulating pump Is a separate donkey suction fitted in Engine room & size (2) including one to Ballast pump

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 Yes

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 near to deep water line

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 Pipes to after hold How are they protected by wood 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 on slip before launch Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from Upper platform

BOILERS, &c. — (Letter for record B) Total Heating Surface of Boilers 4436 sq ft

No. and Description of Boilers Two Round Horizontal Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs

Date of test 29.3.95 Can each boiler be worked separately Yes Area of fire grate in each boiler 67 sq ft No. and Description of safety valves to each boiler 2 Direct Spring Area of each valve 8.30" Pressure to which they are adjusted 162 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork about 30" Mean diameter of boilers 15" 6"

Length 11 ft Material of shell plates Steel Thickness 19/16" Description of riveting: circum. seam Triple long. seams Double straps

Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 1/8" x 4 9/16" Lap of plates or width of butt straps 19" straps 16"

Per centages of strength of longitudinal joint 80 7/8% Working pressure of shell by rules 141 lbs Size of manhole in shell 16" x 12"

Size of compensating ring — No. and Description of Furnaces in each boiler 3 Horizontal Material Steel Outside diameter 4 ft

Length of furnace 7' 6" Thickness of plates 9/16" Description of longitudinal joint welded No. of strengthening rings —

Working pressure of furnace by the rules 184 lbs Combustion chamber plates: Material Steel Thickness: Sides 9" Back 19" Top 9 1/16" Bottom 1 1/2"

Pitch of stays to ditto: Sides 8" x 8" Back 8 1/2" x 8 1/2" Top 8" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 144 lbs

Material of stays Steel Diameter at smallest part 2 3/8" Area supported by each stay 42 1/2" Working pressure by rules 163 lbs End plates in steam space: Material Steel Thickness 1 1/8" Pitch of stays 15 3/4" How are stays secured by nuts Working pressure by rules 230 lbs Material of stays Steel

Diameter at smallest part 2 3/8" Area supported by each stay 240" Working pressure by rules 145 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 13 1/2" x 8 1/2" Working pressure of plate by rules —

Diameter of tubes 3 1/4" Pitch of tubes 14 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1 1/16" Back 1 1/16" Mean pitch of stays 14 1/2"

Pitch across wide water spaces 15" Working pressures by rules 200 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/4" x 3 1/4" Length as per rule 2' 9" Distance apart 8" Number and pitch of Stays in each 3 (8")

Working pressure by rules 163 lbs 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 stated whether, and when, this ship be sent to 1895
Report also sent on the Hull of ...
L.R.P.H. 2000 - Form No. 8 - 03

13688 gls

DONKEY BOILER— Description *Round Multitubular*
 Made at *Glasgow* By whom made *Barclay Curle & Co. Ltd.* When made *1895* Where fixed *On upper deck*
 Working pressure *75 lbs* tested by hydraulic pressure to *150* No. of Certificate *3484* Fire grate area *26 sq ft* Description of safety valves *Direct Spring*
 No. of safety valves *2* Area of each *5.4* Pressure to which they are adjusted *45 lbs* fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler *No*
 Diameter of donkey boiler *8' 6"* Length *8' 4"* Material of shell plates *Steel* Thickness *3/16"*
 Description of riveting long seams *D. Lap* Diameter of rivet holes *15/16"* Whether punched or drilled *Drilled* Pitch of rivets *3"*
 Lap of plating *1 1/2"* Per centage of strength of joint Rivets *4 1/2* Thickness of shell plates *15/16"* Radius of do. *None* Stays to do *16" x 9"*
 Dia. of stays *1 3/4"* Diameter of furnace *2' 4"* Bottom *None* Length of furnace *5' 6"* Thickness of furnace plates *13/32"* Description of joint *welded* Thickness of furnace plates *1/16"* Stayed by *Bars Stays 1 3/4"* Working pressure of shell by rules *45 lbs*
 Working pressure of furnace by rules *103 lbs* Diameter of uptake *None* Thickness of uptake plates *None* Thickness of water tubes *3/4"*

SPARE GEAR. State the articles supplied:— *Propeller Shaft + 2 blades, 1 Air + 1 Circulating pump bucket with 1 rod to suit either, 1 pair Com 400 buckets & bolts for top & bottom ends, 2 main bearings + 8 cups & bolts 1 set pump valves for the various pumps, assortment of The foregoing is a correct description, valves springs bolts nuts &c*
Barclay Curle & Co. Ltd. Manufacturer.
per James Morrison Director

General Remarks (State quality of workmanship, opinions as to class, &c. *These Engines & Boilers are of good workmanship + material and are now in good order and safe working condition and eligible in my opinion to be noted in the Register Book * L.M.C. 5795*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 5, 95

A.P.R.
21-5-95

MACHINERY CERTIFICATE
 GRANTED

Certificate (if required) to be sent to *Glasgow*

The amount of Entry Fee..	£ 2 : " : "	When applied for,	15/57 18 95
Special	£ 34 : 13 : "		
Donkey Boiler Fee	£ " : " : "	When received,	16/57 18 95
Travelling Expenses (if any) £	" : " : "		

James Morrison
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
 Clyde District

Committee's Minute **TUES 21 MAY 1895**

Assigned *+ L.M.C. 5, 95*



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