

# REPORT ON MACHINERY.

No. 13431

Port of Glasgow

Received at London Office THURS. 21st JAN 1895

No. in Survey held at Glasgow

Date, first Survey 11th May 1894 Last Survey 18th Jan'y 1895

Reg. Book. on the S. S. Gorsedd

(Number of Visits 48)

Master J. M. Mead Built at Dumbarton By whom built A. W. Millan & Co Tons { Gross 3481 Net 2451 When built 1895

Engines made at Glasgow By whom made Dunsmuir & Jackson when made 1895

Boilers made at Glasgow By whom made Dunsmuir & Jackson when made 1895

Registered Horse Power 304 Owners McCurley Matthews & Co Port belonging to Cardiff

Nom. Horse Power as per Section 28 307

**ENGINES, &c.**— Description of Engines Triple Expansion No. of Cylinders Three

Diameter of Cylinders 25" 40" 66" Length of Stroke 45" Revolutions per minute 65 *estimated* Diameter of Screw shaft 12.0" *as per rule*

Diameter of Tunnel shaft 11.4" *as per rule* Diameter of Crank shaft journals 12 7/8" Diameter of Crank pin 12 7/8" Size of Crank webs 8 1/2" x 23" *as fitted*

Diameter of screw 16.6" Pitch of screw 17" 0" No. of blades four State whether moveable solid Total surface 75 sq ft

No. of Feed pumps two Diameter of ditto 3 1/2" Stroke 24" Can one be overhauled while the other is at work yes

No. of Bilge pumps two Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yes

No. of Donkey Engines three Sizes of Pumps Bellows double acting 9x10x10 No. and size of Suctions connected to both Bilge and Donkey pumps Duplex lift 6 1/2 x 4 x 6

In Engine Room Three 3 1/2" 2 1/2" x 3 1/2" 2 1/2" x 3 1/2" In Holds, &c. Dia 3 1/2" and two 2 3/4"

No. of bilge injections one size 6" Connected to condenser, or to circulating pump comp. Is a separate donkey suction fitted in Engine room & size yes 3 1/2"

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 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 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 forward bilge pipes How are they protected under ceiling

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 before launching Is the screw shaft tunnel watertight apparently

Is it fitted with a watertight door yes worked from spar decks

**BOILERS, &c.**— (Letter for record 8-) Total Heating Surface of Boilers 4840 sq ft

No. and Description of Boilers two Cylindrical return tubular Working Pressure 170 lbs Tested by hydraulic pressure to 340 lbs

Date of test 2.11.94 Can each boiler be worked separately yes Area of fire grate in each boiler 71 sq ft No. and Description of safety valves to each boiler two spring loaded Area of each valve 8.29 sq in Pressure to which they are adjusted 175 lbs Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork stand clear Mean diameter of boilers 192"

Length 10' 9" Material of shell plates Steel Thickness 1 1/2" Description of riveting: circum. seams lap 2 rivets long seams D. Nutt 5 Rivets

Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 9 1/2" Lap of plates or width of butt straps 20 1/2"

Per centages of strength of longitudinal joint 86.6 Working pressure of shell by rules 175 lbs Size of manhole in shell 12" x 16"

Size of compensating ring W. Neils No. and Description of Furnaces in each boiler Three Iron Material Steel Outside diameter 57 1/4"

Length of plain part 7' 3" Thickness of plates 3 9/16" Description of longitudinal joint weld No. of strengthening rings corruption

Working pressure of furnace by the rules 170 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 1"

Pitch of stays to ditto: Sides 8 7/8" x 8 1/2" Back 8 3/4" x 8 1/2" Top 8 1/2" x 8 1/8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 171 lbs

Material of stays Steel Diameter at smallest part 1 7/8" Area supported by each stay 45 sq in Working pressure by rules 186 lbs End plates in steam space: Material Steel Thickness 1 1/8" Pitch of stays 17" x 16 1/8" How are stays secured D. Nuts Working pressure by rules 175 lbs Material of stays Steel

Diameter at smallest part 5 27/4" Area supported by each stay 278 sq in Working pressure by rules 170 lbs Material of Front plates at bottom Steel

Thickness 1 1/8" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 14" Working pressure of plate by rules 176 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 1/16" Material of tube plates Steel Thickness: Front 7/8" x 7/8" Back 7/8" Mean pitch of stays 117"

Pitch across wide water spaces 14 1/2" Working pressures by rules 240, 200 lbs Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 8" x 2 x 1" Length as per rule 3 1/2" Distance apart 8 1/2" Number and pitch of Stays in each two 8 7/8"

Working pressure by rules 190 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately

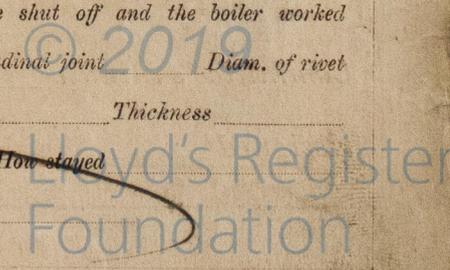
Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

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

L.R.P.H.—5,000.—Form No. 172a. See back of the ship's register, and when one will be sent?

GLS171-0197



13431 2/2

DONKEY BOILER—

Description

See attached report

Made at Glasgow

By whom made

Dunsmuir & Jackson

When made 1895

Where fixed In Stokelord.

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 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:—

As required by the rules and also one spare solid propeller.

The foregoing is a correct description,

Dunsmuir & Jackson Manufacturer.

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

The machinery and boilers of this vessel have been built under the conditions of Special Survey, they have been securely fitted on board and satisfactorily tested under steam.

The material and workmanship is good.

It is submitted that this vessel is eligible for the record + L.M.C. 1. 95

It is submitted that this vessel is eligible for

RECORD. + L.M.C. 1. 95

A.P.R.

24-1-95

MACHINERY CERTIFICATE WRITTEN

Certificate (if required) to be sent to

Glasgow

The amount of Entry Fee..

£ 3 : " :

When applied for,

Special

£ 35 : 4 :

19/1/95

Donkey Boiler Fee

£ " : " :

When received,

Travelling Expenses (if any) £

" : " :

21/1/95

C. J. Bromeyer, Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRIDAY 25 JAN 1895

Assigned

+ L.M.C. 1. 95



© 2019

Lloyd's Register Foundation