

6212

No. On

REPORT ON MACHINERY.

To No. 6212

Received at London Office 16th AUGUST, 1883.

No. in Survey held at Glasgow Date, first Survey Jan 21 1882 Last Survey 11th Aug 1883
Reg. Book. " " (Number of Visits) 12414-45

on the Screw Steamer "Sussex" Tons 1619.54

Master Jasper O'Callaghan Built at Glasgow By whom built The London & Glasgow Co. Ld. When built 1883

Engines made at Glasgow By whom made The London & Glasgow Co. Ld. when made 1883

Boilers made at Do By whom made Do when made 1883

Registered Horse Power 300 Owners Money Wigram & Co Port belonging to Glasgow

ENGINES, &c.—

Description of Engines Inverted Direct acting - Compound - Surface Condensing.

Diameter of Cylinders 38" & 68" Length of Stroke 4' 8" No. of Rev. per minute 65 Point of Cut off, High Pressure 5/8" Low Pressure 5/8"

Diameter of Screw shaft 12 3/4" Diam. of Tunnel shaft 11 3/4" Diam. of Crank shaft journals 12 3/4" Diam. of Crank pin 12 3/4" size of Crank webs 14 3/4" x 9"

Diameter of screw 16-6 Pitch of screw 18-6 No. of blades 4 state whether moveable Low total surface 76 sq ft

No. of Feed pumps Two diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work Yes

No. of Bilge pumps Two diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work Yes

Where do they pump from Fore & Aft Holds & Engine Room

No. of Donkey Engines One & hand Size of Pumps 8 gal & 4 1/2 pump & 8 inch Where do they pump from Fore & Aft Holds, Sea, Holdwell, & Engine room

Are all the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes

No. of bilge injections One and sizes 5" Are they connected to condenser, or to circulating pump Circulating pump.

How are the pumps worked By levers from crank head of S.P. engine.

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 Below

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 None. How are they protected —

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

Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection 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 Yes and fitted with a sluice door Yes worked from Engine Room at deck.

BOILERS, &c.—

Number of Boilers Two Description Cylindrical. Multitubular Whether Steel or Iron Steel

Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test 25th May 1883

Description of superheating apparatus or steam chest Cylindrical. Horizontal.

Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately —

No. of square feet of fire grate surface in each boiler 42 sq ft Description of safety valves Direct spring No. to each boiler Two

Area of each valve 23.76 sq ins Are they fitted with easing gear Yes No. of safety valves to superheater — area of each valve —

Are they fitted with easing gear — Smallest distance between boilers and bunkers 12" Diameter of boilers 12-9"

Length of boilers 16-6" description of riveting of shell long. seams Butt. double rivet circum. seams Lap. double Thickness of shell plates 3/4"

Diameter of rivet holes 1 1/16" whether punched or drilled Drilled pitch of rivets 4 3/8" Lap of plating 5 1/2"

Percentage of strength of longitudinal joint 75 working pressure of shell by rules 90 lbs size of manholes in shell 16 x 12"

Size of compensating rings Angle iron. 4" x 3 x 1/2" No. of Furnaces in each boiler Two

Outside diameter 4-1" length, top 6-3" bottom 16-0" thickness of plates 17/32" description of joint Butt & weld if rings are fitted Yes.

Greatest length between rings 6-3" working pressure of furnace by the rules 82 lbs combustion chamber plating, thickness, sides 5/32" back — top 1/2"

Pitch of stays to ditto, sides 8 1/2" back — top 8 1/2 x 7 7/8" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 93 lbs Diameter of stays at smallest part 1 3/8" working pressure of ditto by rules 100 lbs end plates in steam space, thickness 3/4"

Pitch of stays to ditto 15 x 14" how stays are secured Nuts working pressure by rules 90 lbs diameter of stays at smallest part 2 1/4" working pressure by rules 100 lbs Front plates at bottom, thickness 5/8" Back plates, thickness —

Greatest pitch of stays — working pressure by rules — Diameter of tubes 3 1/2" pitch of tubes 4 3/4" thickness of tube plates, front 1/16" back 5/8" how stayed Stay tubes pitch of stays 14 1/2 x 9 1/2" width of water spaces 5"

Diameter of Superheater or Steam chest 3-6" length 16-6" thickness of plates 1/2" description of longitudinal joint Lap. double diam. of rivet holes 13/16"

Pitch of rivets 2 5/8" working pressure of shell by rules 120 lbs diameter of flue — thickness of plates — If stiffened with rings —

Distance between rings — working pressure by rules — end plates of superheater, or steam chest; thickness 9/16" how stayed Ends dished Superheater or steam chest; how connected to boiler Iron neck 16 dia - 3/4 dia

Form No. 8-20

GLS148-0180

6212 g/s

DONKEY BOILER— Description *Cylindrical - Multitubular - Iron shell*
 Made at *Glasgow* by whom made *London & Glasgow Co^{rs} L^d* when made *1883* where fixed *On deck*
 Working pressure *60 lbs* tested by hydraulic pressure to *120 lbs* No. of Certificate *1106* fire grate area *16 1/2 sq ft* description of safety
 valves *Dried spring* No. of safety valves *One* area of each *9 sq in* fitted with easing gear *yes* if steam from main boilers can
 enter the donkey boiler *No* diameter of donkey boiler *7-6* length *7-2* description of riveting *Double - Lap*
 Thickness of shell plates *1/2 iron* diameter of rivet holes *15/16* whether punched or drilled *Punched* pitch of rivets *38* lap of plating *1 1/2*
 per centage of strength of joint *70* thickness of ~~iron~~ ^{comb cham} plates *7/16* stayed by *1 1/4 stays 8 3/8 pitch*
 Diameter of furnace, top *3-7* bottom *—* length of furnace *4-9* thickness of plates *7/16* description of joint *Butt*
 Thickness of ~~furnace~~ ^{end} plates *5/8* stayed by *Stays 2" dia. 16" pitch* working pressure of shell by rules *60 lbs*
 Working pressure of furnace by rules *80 lbs* diameter of ^{tubes} ~~plates~~ *3 1/2* thickness of plates *5/8* thickness of water tubes *—*

SPARE GEAR. State the articles supplied:— *Two Connecting Rod top & bottom end bolts
 & nuts. Two main bearing bolts & nuts. One set of coupling bolts.
 One set of Feed Pump valves. One set of Bilge Pump valves. Assorted
 Bolts & nuts. Irons as required by the Rules.*

The foregoing is a correct description,
 from the *London & Glasgow Engineering Works*
Shipbuilders Company Limited Manufacturer.
W. Kelly Secy

General Remarks (State quality of workmanship, opinions as to class, &c.)
*These engines & Boilers have been constructed
 under Special Survey. They are of good material &
 workmanship. They have been well fitted on board
 satisfactorily tested under steam, and we are of opinion
 they are eligible to be classed "LLOYD'S M.C." 8-83 in the
 Register Book.*

*It is submitted that this
 vessel is eligible to have the
 notation + S.M. & S.S.
 recorded.*

16/8/83

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The amount of Entry Fee £ 3 : 0 : 0 received by me,
 Special .. £ 35 : 0 : 0
 Donkey Boiler Fee .. £ 0 : 0 : 0
 Certificate (if required) .. £ 0 : 0 : 0 15/8/1883
 To be sent as per margin.
 (Travelling Expenses, if any, £ ..)

Walter E. Robson & James Molloy
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

+ D Mil