

# REPORT ON MACHINERY.

Port of Glasgow

Received at London Office

FRI. 14 APR 1899

No. in Survey held at  
Reg. Book.

Date, first Survey

Last Survey

18

(Number of Visits)

on the

S. S. "DORSET"

Tons }  
Gross }  
Net }

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

Boilers made at

By whom made

when made

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted

Is Electric Light fitted

## ENGINES, &c.—Description of Engines

No. of Cylinders

No. of Cranks

**Dia. of Cylinders** Length of Stroke Revs. per minute **Dia. of Screw shaft** as per rule as fitted Lgth. of stern bush

**Dia. of Tunnel shaft** as per rule as fitted **Dia. of Crank shaft journals** as per rule as fitted **Dia. of Crank pin** Size of Crank webs **Dia. of thrust shaft under collars**

**Dia. 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)

Total Heating Surface of Boilers

Is forced draft fitted

No. and Description of Boilers Working Pressure Tested by hydraulic pressure to

Date of test Can each boiler be worked separately Area of fire grate in each boiler 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 dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are they welded or flanged Descrip. of riveting: cir. seams long. seams

Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint rivets plate Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top bottom Thickness of plates crown bottom Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

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

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre Length as per rule Distance apart Number and pitch of Stays in each

Working pressure by rules Superheater or Steam chest; how connected to boiler 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

GLS 183-0276

16884 Gls

**DONKEY BOILER**— No. *One* Description *Single ended, multitubular, 2 Plain furnaces.*  
 Made at *Stockton* By whom made *Riley Bros* When made *11/1/99* Where fixed *on deck.*  
 Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *1868* Fire grate area *25"* Description of safety valves *Patent Spring*  
 No. of safety valves *2* Area of each *3.976"* Pressure to which they are adjusted  If fitted with easing gear  If steam from main boilers can enter the donkey boiler *no* Dia. of donkey boiler *8.6"* Length *8.0"* Material of shell plates *steel* Thickness *1/2"* Range of tensile strength *27-32* Descrip. of riveting long. seams *treble rivetted lap.* Dia. of rivet holes *13/16"* Whether punched or drilled *p + rim* Pitch of rivets *3/4"*  
 Lap of plating *6"* Per centage of strength of joint Rivets *81* Thickness of shell *and* plates *22/32* Radius of do. *Steel* No. of Stays to do. *16/4x1*  
 Dia. of stays. *2" eff. iron* Diameter of furnace *Top 30"* Bottom *C.C. 1/2"* Length of furnace *5.4 1/2"* Thickness of furnace plates *7/16"* Description of joint *welded* Thickness of furnace *iron* plates *15/32"* Stayed by *s. stays 1 1/8" eff. 8 to 9 pitch* Working pressure of shell by rules *86 lbs.*  
 Working pressure of furnace by rules *80 lbs* Diameter of *tube* uptake *3"* Thickness of *tube* uptake plates *23/32" x 9/16"* Thickness of *stay* water tubes *5/16"*

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,  
Manufacturer.

Dates of Survey while building } During progress of work in shops - -  
 } During erection on board vessel - -  
 Total No. of visits \_\_\_\_\_ Is the approved plan of main boiler forwarded herewith \_\_\_\_\_

General Remarks (State quality of workmanship, opinions as to class, &c.) *retained at Stockton for duplicate*  
*This boiler has been placed on board, the framing & staying of same requires to be examined, & the safety valve easing gear fixed. the safety valves also require to be tested & adjusted under steam.*

*It is submitted that this vessel is eligible to remain as CLASSED. subject to New Donkey Boiler being securely fixed in position and Safety valves adjusted under steam, and is eligible for N.D.B. 399. Subject to above.*  
*A.C.H.*  
*14.4.99.*  
*N.D.B. 99 working pressure 80 lbs to be bonded*

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..	£	:	:	When applied for,
Special .. .. .	£	:	:	.....18.....
Donkey Boiler Fee .. .	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	.....18.....

*J.W. Dunmoock*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **TUES. 18 APR. 1899** **FRI. 21 APR. 1899**

Assigned

