

DONKEY BOILER— Description *Cylindrical single ended Multitubular (see form attached)*
 Made at *Belfast* by whom made *Victor Coates & Co* when made *1887* where fixed *on upper deck*
 Working pressure *60 lbs.* tested by hydraulic pressure to *120 lbs.* No. of Certificate *22* fire grate area _____ description of safety valves _____
 No. of safety valves _____ area of each _____ if fitted with easing gear _____ if steam from main boilers can enter the donkey boiler *no.* diameter of donkey boiler _____ length _____ description of riveting _____
 Thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____ pitch of rivets _____ lap of plating _____
 per centage of strength of joint _____ thickness of crown plates _____ stayed by _____
 Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of 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 plates _____ thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *2 propeller blades; 1 air pump rod, bucket & head valve seat with valves; 1 circulating pump rod bucket & valves; 2 slide valve spindles; 1 pair of crank pin brasses; 1 set of feed & bilge pump valves with seat 6 pump ring bolts; 1 set of coupling bolts; 2 main bearing bolts; 1 set of con. rod top & bot. end bolts; 8 studs & nuts for propeller blades; an assorted quantity of bolts nuts & iron bars &c &c.*
 The foregoing is a correct description, *Harland & Wolff* Manufacturer. *per J.H.H.*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The boilers and other parts of the machinery have been constructed & fitted in vessel in accordance with the plans approved of by the Committee, the Secretary's letters dated 28th June, 1886; & 16th June, 1887, in accordance with or equivalent to the Rules of the Society for the Special Survey on New Machinery and to the satisfaction of the undersigned.
The steel used in the construction of the Boilers has been tested as required by the Rules.

The Boilers when tested under hydraulic and machinery made steam pressures, gave entire satisfaction.
The safety valves were adjusted under steam to 155 lbs. on main, & 60 lbs. on Auxiliary boiler.

The material used in the construction of Machinery and the workmanship throughout the Machinery is in my L.M.C. 5-88 and I would be the same to the favourable and be entered in the Society's records.

This is submitted that this vessel is eligible to have the 175/88

The amount of Entry Fee _____
 Special _____
 Donkey Boiler Fee _____
 Certificates (if required) _____
 To be sent as per margin.

James Claxton
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

FRIDAY 18 MAY 1888

Committee's Minute
 + dmc 5/88

No. *3423* Port of *Belfast* Received at London Office *17 MAY 88*
 No. in Survey held at *Belfast* Date, first Survey _____ Last Survey _____ 18
 Reg. Book. _____ (Number of Visits _____)
 on the *Auxiliary Boiler of S.S. "Lycia"* Tons _____
 Master _____ Built at *Belfast* By whom built *Victor Coates & Co. Particulars made*
 Engines made at _____ By whom made *by Harland & Wolff fall plates ruffled when made*
 Boilers made at _____ By whom made _____ when made _____
 Registered Horse Power _____ Owners _____ Port belonging to _____

ENGINES, &c.
 Description of Engines _____
 Diameter of Cylinders _____ Length of Stroke _____ No. of Rev. per minute _____ Point of Cut off, High Pressure _____ Low Pressure _____
 Diameter of Screw shaft _____ Diam. of Tunnel shaft _____ Diam. of Crank shaft journals _____ Diam. 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 _____
 Where do they pump from _____
 No. of Donkey Engines _____ Size of Pumps _____ Where do they pump from _____
 Are all the bilge suction pipes fitted with roses _____ Are the roses always accessible _____ Are the sluices on Engine room bulkheads always accessible _____
 No. of bilge injections _____ and sizes _____ Are they connected to condenser, or to circulating pump _____
 How are the pumps worked _____
 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 accessible at all times _____
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection 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 _____ and fitted with a sluice door _____ worked from _____

BOILERS, &c.
 Number of Boilers *one* Description *Cyl. Multitubular* Whether Steel or Iron *Steel*
 Working Pressure *60 lbs.* Tested by hydraulic pressure to *120* Date of test *6th Oct. 1887. Cert 22*
 Description of superheating apparatus or steam chest *none fitted*
 Can each boiler be worked separately _____ Can the superheater be shut off and the boiler worked separately _____
 No. of square feet of fire grate surface in each boiler *23 3/4* Description of safety valves *Cockburns sp. p.* No. to each boiler *two*
 Area of each valve *7.075* 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 or woodwork _____ Diameter of boiler *8'-6"*
 Length of boiler *9'-0"* description of riveting of shell long. seams *lap & double riv.* Circum. seams *lap & double riv.* Thickness of shell plates *3/8"*
 Diameter of rivet holes *3/8"* whether punched or drilled *drilled* pitch of rivets *3"* Lap of plating *4 1/4"*
 Per centage of strength of longitudinal joint *68* working pressure of shell by rules *71.6* size of manholes in shell *12x15"*
 Size of compensating rings *Rectangular plate 24x27x 1/2* No. of Furnaces in each boiler *two*
 Outside diameter *30 3/8"* length, top *5'-9"* bottom *8'-0"* thickness of plates *3/8"* description of joint *double strapped & riv.* if rings are fitted *no.*
 Greatest length between rings _____ working pressure of furnace by the rules *69.4 lbs.* combustion chamber plating, thickness, sides *3/8"* back *3/8"* top *3/8"*
 Pitch of stays to ditto, sides *9 1/4 x 9 1/4* back *9 1/4 x 8 1/2* top *9 1/4 x 9 1/4* If stays are fitted with nuts or riveted heads *nutted* working pressure of plating by rules *63 lbs.* diameter of stays at smallest part *1.2"* working pressure of ditto by rules *84 lbs.* and plates in steam space, thickness *5/8"*
 Pitch of stays to ditto *16 1/2 x 16 1/2* how stays are secured *double nuts* working pressure by rules *70 lbs. with 190* diameter of stays at smallest part *2 1/4" iron* working pressure by rules *87.7 lbs.* Front plates at bottom, thickness *3/8"* Back plates, thickness *5/8"*
 Greatest pitch of stays *9 1/4"* working pressure by rules *141 lbs.* Diameter of tubes *3 1/4" 9 1/4"* pitch of tubes *4 1/2"* thickness of tube plates, front *5/8"* back *5/8"* how stayed *stay laced* pitch of stays *15 x 9"* width of water spaces *1 1/2" & 1 1/4"* diam. of rivet holes *1 1/2" & 1 1/4"*
 Diameter of Superheater or Steam chest _____ length _____ thickness of plates _____ description of longitudinal joint _____
 Pitch of rivets _____ working pressure of shell by rules _____ 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 _____ how stayed _____
 Superheater or steam chest; how connected to boiler _____

Harland & Wolff manufacturer. *BELSH-0298*
James Claxton Surveyor

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 _____ if fitted with easing gear _____ if steam from main boilers can enter the donkey boiler _____ diameter of donkey boiler _____ length _____ description of riveting _____

Thickness of shell plates _____ diameter of rivet holes _____ whether punched or drilled _____ pitch of rivets _____ lap of plating _____

per centage of strength of joint _____ thickness of crown plates _____ stayed by _____

Diameter of furnace, top _____ bottom _____ length of furnace _____ thickness of 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 plates _____ thickness of water tubes _____

SPARE GEAR. State the articles supplied :—

The foregoing is a correct description,

Manufacturer.

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

The amount of Entry Fee .. £ : : received by me,

Special £ : :

Donkey Boiler Fee £ : :

Certificate (if required) .. £ : : 18

To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

FRIDAY 18 MAY 1898.

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



Lloyd's Register Foundation