

REPORT ON MACHINERY.

No. 14173

Port of Greenock

Received at London Office 10ES, 21 MAR 1905

No. in Survey held at Port Glasgow Date, first Survey 16th Dec 1904 Last Survey 25th Jan 1905
 Reg. Book. on the Screw Steamer Hazel Dollar (Number of Visits 5)
 Master Built at Port Glasgow By whom built A. Rodger & Co. Tons { Gross / Net }
 Engines made at Glasgow By whom made A. Rodger & Co. when made 1905
 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 for cargo purposes _____ 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} _____ Material of screw shaft _____
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube _____ Is the after end of the liner made water tight in the propeller boss _____ If the liner is in more than one length are the joints burned _____ If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive _____ If two liners are fitted, is the shaft lapped or protected between the liners _____ Length 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 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 _____ 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 Yes _____
 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 _____

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DONKEY BOILER— No. _____ 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 _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____

Diap. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long seams _____ Dia. 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. _____

Diap. 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:—

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

1904. Dec. 16. 22. 30. 1905 Jan. 19. 25

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

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

The fastenings of the stern tube and all sea cocks and valves were examined before launching and found in good order

Certificate (if registered) to be sent to

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

Engine & boiler fittings should also be mentioned on Launching Reports such as this

The amount of Entry Fee. £	:	:	When applied for,
Special £	:	:19.....
Donkey Boiler Fee £	:	:	When received,
Travelling Expenses (if any) £	:	:19.....

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

Committee's Minute Glasgow 30 JAN 1905

Assigned Deputed for completion. *W*



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