

REPORT ON MACHINERY. 5715

No. 5757 Port of Dundee & Ainsturth Received at London 9 AUGUST 1888
 No. in Survey held at Dundee & Ainsturth Date, first Survey 10th March Last Survey 4th Aug 1888
 Reg. Book. on the Wood Screw Steamer 'Barbaras' (Number of Visits 2) Tons 37.14
57.14
 Master W. Gibson Built at Ainsturth By whom built W. Jarvis When built 1885
 Engines made at Glasgow By whom made King & Co. when made 1886
 Boilers made at " By whom made " when made 1886
 Registered Horse Power 20 Owners W. Jarvis Port belonging to Kirkcaldy

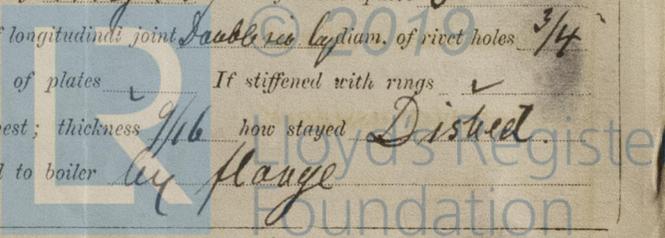
ENGINES, &c.—

Description of Engines Tandem compound 4 cylinders
 Diameter of Cylinders 7 1/2 x 11 Length of Stroke 12 No. of Rev. per minute _____ Point of Cut off, High Pressure 3/4 Low Pressure 3/4
 Diameter of Screw shaft 3 7/8 Diam. of Tunnel shaft ✓ Diam. of Crank shaft journals 4 1/2 Diam. of Crank pin 3 1/2 size of Crank webs 2 7/8 x 4 1/2
 Diameter of screw 5' 8" Pitch of screw 9' 6" No. of blades 3 state whether moveable ✓ total surface _____
 No. of Feed pumps One diameter of ditto 1 5/16 Stroke 12 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 Engine Room
 No. of Donkey Engines One Size of Pumps 6 x 6 x 2 3/8 Where do they pump from 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 ✓
 No. of bilge injections None and sizes ✓ Are they connected to condenser, or to circulating pump ✓
 How are the pumps worked from lower of forward engines
 Are all connections with the sea direct on the skin of the ship Yes 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 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 _____
 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 while building
 Is the screw shaft tunnel watertight _____ and fitted with a sluice door _____ worked from _____

BOILERS, &c.—

Number of Boilers One Description Circular tubular Whether Steel or Iron Iron
 Working Pressure 90 Tested by hydraulic pressure to 180 Date of test 4/7/88
 Description of superheating apparatus or steam chest Vertical dome
 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 741 Description of safety valves Spring No. to each boiler two
 Area of each valve 1.77 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 8 in's Diameter of boilers 6' 5 1/2"
 Length of boilers 6' 0" description of riveting of shell long. seams Treble riv. lap circum. seams Single riv. lap Thickness of shell plates 1/16
 Diameter of rivet holes 7/8" whether punched or drilled Punched pitch of rivets 4" Lap of plating 7 1/2"
 Per centage of strength of longitudinal joint 78 & 65 working pressure of shell by rules 95 size of manholes in shell 10" x 14"
 Size of compensating rings 4" x 3/4" No. of Furnaces in each boiler One
 Outside diameter 2' 9" length, top 3' 6" bottom 5' 6" thickness of plates 1/2" description of joint Double butt strap if rings are fitted No
 Greatest length between rings ✓ working pressure of furnace by the rules 123 combustion chamber plating, thickness, sides 1/2" back 1/2" top 1/2"
 Pitch of stays to ditto, sides 7/2 x 8 back 7/2 x 7/2 top 7/2 x 1 1/2 If stays are fitted with nuts or riveted heads Both working pressure of plating by rules 700 Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 90 end plates in steam space, thickness 5/8 doubled
 Pitch of stays to ditto 15 1/4 x 11 how stays are secured Double nuts working pressure by rules 155 diameter of stays at smallest part 2" working pressure by rules 101 Front plates at bottom, thickness 5/8 Back plates, thickness 5/8
 Greatest pitch of stays 5/8 working pressure by rules 148 Diameter of tubes 3 1/2" pitch of tubes 4 3/4" x 4 3/4" thickness of tube plates, front 5/8 back 5/8 how stayed stay tubes pitch of stays Irregular width of water spaces 5"
 Diameter of Superheater or Steam chest 1' 8 1/2" length 2 1/4 thickness of plates 1/2" description of longitudinal joint Double riv. lap diam. of rivet holes 3/4"
 Pitch of rivets 3/4" working pressure of shell by rules 149 diameter of flue _____ thickness of plates _____ It stiffened with rings ✓
 Distance between rings ✓ working pressure by rules _____ end plates of superheater or steam chest; thickness 1/16 how stayed Dished
 Superheater or steam chest; how connected to boiler by flange



LTH 558-0065

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 casing 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 engines and boiler of this vessel have been repaired & fitted on board at Dundee.

The boiler safety valves have been set under steam & a working pressure of 90 lb per sq & the engines tried under steam & found all in order.

The machinery of this vessel is now in good condition & suitable, in our opinion, to be classed marked **L.M.C. 8-88**

The amount of Entry Fee £ 1 : : *the charge paid 10/8/88* received by me,
 Special £ 6 : 6 :
 Donkey Boiler Fee £ : :
 Certificate (if required) £ : 2 : 6 *8th Aug. 1888.*
 To be sent as per margin.
 (Travelling Expenses, if any, £ 1-13-8)

Committee's Minute **FRIDAY 10 AUGUST 1888**
2yfe 10/8/88 **L.M.C. 8/88**

W. Darling & R. Kaye
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

It is submitted that this vessel is eligible to have L.M.C. 8-88 recorded.
MJ 9.8.88

