

REPORT ON MACHINERY.

Port of Dundee

Received at London Office WED. 5 SEP 1900

No. in Survey held at Dundee Date, first Survey 23rd May Last Survey 30th Aug 1900
 Reg. Book. 329 on the New Main Berth of Iron Screw Steamer "Osprey" (Number of Visits 16)
 Master Built at Stockton By whom built M. Pearce & Co Tons Gross 1094 Net 593
 Engines made at Dundee By whom made Messrs Gourlay Bros & Co when made 1891
 Boilers made at Do By whom made Caledon S.S. & Eng Coy Lim when made 1900
 Registered Horse Power Owners General Atm Har Coy Port belonging to London
 Nom. Horse Power as per Section 28 269 Is Refrigerating Machinery fitted no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 22-36-58 Length of Stroke 45 Revs. per minute Dia. of Screw shaft as per rule Lgth. of stern bush
 Dia. of Tunnel shaft as fitted Dia. of Crank shaft journals 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 (A)) Total Heating Surface of Boilers 4691 Is forced draft fitted no
 No. and Description of Boilers Two cylindrical single ended Working Pressure 160 Tested by hydraulic pressure to 320
 Date of test 30.8.00 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 15'-6" Length 11'-0" Material of shell plates steel
 Thickness 1 3/32 Range of tensile strength 28-32 Are they welded or flanged no Descrip. of riveting: cir. seams Lap. 8 x T. long. seams 5 Rivets per pitch
 Diameter of rivet holes in long. seams 1 5/16 Pitch of rivets 9" Lap of plates in width of butt straps 19 1/4"
 Per centages of strength of longitudinal joint rivets 87.2 plate 85.4 Working pressure of shell by rules 185 Size of manhole in shell 17" x 13"
 Size of compensating ring G.C. Keule No. and Description of Furnaces in each boiler 4 Corrugated Material steel Outside diameter 43"
 Length of plain part top 15 bottom 32 Thickness of plates crown 15 bottom 32 Description of longitudinal joint Welded No. of strengthening rings 12
 Working pressure of furnace by the rules 161 Combustion chamber plates: Material steel Thickness: Sides 3/8" Back 1/8" Top 3/8" Bottom 1/2"
 Pitch of stays to ditto: Sides 8 x 7 1/2 Back 9 1/4 x 8 1/4 Top 8 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 175
 Material of stays IRON Diameter at smallest part 1.51 Area supported by each stay 76.3 Working pressure by rules 176 End plates in steam space:
 Material steel Thickness 1 3/32 Pitch of stays 16 x 15 How are stays secured 84 Nuts Working pressure by rules 210 Material of stays IRON
 Diameter at smallest part 2.79 Area supported by each stay 256 Working pressure by rules 179 Material of Front plates at bottom steel
 Thickness 4 3/8 Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 12 3/4" Working pressure of plate by rules 168
 Diameter of tubes 3 1/4 Pitch of tubes 4 3/8 Material of tube plates steel Thickness: Front 7/8 Back 1/2 Mean pitch of stays 8 3/4
 Pitch across wide water spaces 13 3/4 Working pressures by rules 283 Girders to Chamber tops: Material IRON Depth and thickness of girder at centre 10" x 1 1/2 Length as per rule 32 1/2 Distance apart 8 Number and pitch of Stays in each 3 = 7 1/2"
 Working pressure by rules 208 Superheater or Steam chest; how connected to boiler none 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

DONKEY BOILER—

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 _____ Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile
strength _____ Descrip. of riveting long. seams _____ Rivets _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
Lap of plating _____ Per centage of strength of joint _____ Plates _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description _____
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.

W. B. Thompson

Dates of Survey while building { During progress of work in shops - - } May 23^d June 2. 13. 14. 20. 21-27; July 4. 12. 19. Aug 7. 9. 14. 21. 24. 30,
{ During erection on board vessel - - } none
Total No. of visits 16

Is the approved plan of main boiler forwarded herewith yes" " " donkey " " " no

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

The two main Boilers have been built under special survey and in accordance with the approved plan and Secretary's letter "E"-6/9/00. and in general conformity with the Rules. The steel used in the construction of the boilers has been tested by the Society's Surveyors and the materials and workmanship are sound and good. On completion the boilers were tested by hydraulic pressure and found tight and sound.

It will be observed that the diameters of the cylinders have been reduced. It is respectfully submitted that, as the main boilers referred to, are to be placed on board an unclassified vessel, further action is unnecessary.

As these boilers do not appear to be intended for a classed vessel it is submitted no further action need be taken.

Dr to Wm. Smith
9/10/00

£5.9.00
£5.9.00

The amount of Entry Fee.. £ ✓ :
Special £ 15 15/11 3^d Sept 1900
Donkey Boiler Fee £ ✓ :
Travelling Expenses (if any) £ ✓ :
When applied for, 3^d Sept 1900
When received, 28/9/00

W. Morrison

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

Committee's Minute

Assigned

Not for Council

Unclassed Vessel



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Foundation