

REPORT ON MACHINERY.

No. 1505-H.

Port of Greenock

Received at London Office TUES 21 MAY 1907

No. in Survey held at Port Glasgow Date, first Survey 28th Feb Last Survey 26th Mar 1907
Reg. Book. on the Screw Steamer Strathdee (Number of Visits 3)

Master _____ Built at Port Glasgow By whom built R. Duncan 1607 Tons } Gross
When built 1904 } Net

Engines made at Glasgow By whom made D. Rowan 1607 when made 1904
Boilers made at _____ By whom made _____ when made 1904

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

Dia. of Cylinders _____ **Length of Stroke** _____ **Revs. per minute** _____ **Dia. of Screw shaft** _____ **No. of Cylinders** _____ **No. of Cranks** _____
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 _____ **Dia. of Crank shaft journals** _____ **Dia. of Crank pin** _____ **Size of Crank webs** _____ **Dia. of thrust shaft under collars** _____
as per rule _____ as fitted _____ as per rule _____ as fitted _____
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 _____
Dates of examination of completion of fitting of Sea Connections _____ **of Stern Tube** _____ **Screw shaft and Propeller** _____
Is the Screw Shaft Tunnel watertight _____ **Is it fitted with a watertight door** _____ **worked from** _____

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel

Total Heating Surface of Boilers _____ **Is Forced Draft fitted** _____ **No. and Description of Boilers** _____
Working Pressure _____ **Tested by hydraulic pressure to** _____ **Date of test** _____ **No. of Certificate** _____
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 the shell plates 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** _____ **Working pressure of shell by rules** _____ **Size of manhole in shell** _____
plate _____ **Size of compensating ring** _____ **No. and Description of Furnaces in each boiler** _____ **Material** _____ **Outside diameter** _____
Length of plain part _____ **Thickness of plates** _____ **Description of longitudinal joint** _____ **No. of strengthening rings** _____
top _____ **bottom** _____ **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** _____

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

1100-0079



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____
 Made at _____ By whom made _____ When made _____ Where fixed _____
 Working pressure tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety Valves _____
 No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____
 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 _____
 Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____
 Working pressure of shell by rules _____ 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 of joint _____
 Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Stayed by _____
 Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1907. Feb 28. Mar 11. 26
 { During erection on board vessel - - }
 Total No. of visits 3

Is the approved plan of main boiler forwarded herewith

Is the approved plan of main boiler forwarded herewith " " " donkey " " "
 Dates of Examination of principal parts—Cylinders _____ Slides _____ Covers _____ Pistons _____ Rods _____
 Connecting rods _____ Crank shaft _____ Thrust shaft _____ Tunnel shafts _____ Screw shaft _____ Propeller _____
 Stern tube _____ Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____
 Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____
 Main boiler safety valves adjusted _____ Thickness of adjusting washers _____
 Material of Crank shaft _____ Identification Mark on Do. _____ Material of Thrust shaft _____ Identification Mark on Do. _____
 Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts _____ Identification Marks on Do. _____
 Material of Steam Pipes _____ Test pressure _____

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

Propeller, Stern Bush and fastenings of sea cocks examined before launching and found in good order.

Certificate (if required) to be sent to Committee's Minute.

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

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

Committee's Minute

Glasgow 20 MAY 1907

Assigned

See accompanying report.



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