

## REPORT ON MACHINERY.

No. 15225.

Port of Greenock.Received at London Office TUES. 22 OCT 1901No. in Survey held at Port Glasgow. Date, first Survey Aug Last Survey 26 Aug 1901  
Reg. Book. on the Screen Steamer "Strathleven" (Number of Visits 1)Master W. Hamilton Built at Port Glasgow By whom built W. Hamilton & Co. Tons <sup>Gross</sup> 1904  
Engines made at Glasgow By whom made D. Rowan & Co. when made 1904  
Boilers made at " By whom made " when made 1904Registered 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

Description of Engines			No. of Cylinders	No. of Cranks
Dia. of Cylinders	Length of Stroke	Revs. per minute	Dia. of Screw shaft	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 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	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 26/8/04 of Stern Tube 26/8/04 Screw shaft and Propeller 26/8/04  
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                      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                      Thickness of plates                      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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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. Aug 26.  
 { During erection on board vessel - - } 1.  
 Total No. of visits \_\_\_\_\_

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. \_\_\_\_\_ )

The Propeller, stern tube and fastenings of sea connections were examined before launching and found in good order.

Certificate (if required) to be sent to \_\_\_\_\_  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

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

Committee's Minute Glasgow 21 OCT 1907

Assigned See accompanying report

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

