

REPORT ON MACHINERY.

Port of Greenock

Received at London Office **TUES. 20 AUG 1907**

No. in Survey held at Port Glasgow Date, first Survey 6th June 1907 Last Survey 12th June 1907
Reg. Book. on the Screw Steamer Strathgarry (Number of Visits 2)

Master Built at Port Glasgow By whom built A. Hamilton 1864 When built 1904
Engines made at Glasgow By whom made D. Rowan 1864 when made 1907
Boilers made at Glasgow By whom made D. Rowan 1864 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	as per rule	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		
liners are fitted, is the shaft lapped or protected between the liners				Length of stern bush		
Dia. of Tunnel shaft	as per rule	Dia. of Crank shaft journals	as per rule	Dia. of Crank pin	Size of Crank webs	Dia. of thrust shaft under collars
as fitted		as fitted				
Dia. of screw	Pitch of Screw	No. of Blades	State whether moceable	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		<u>Yes</u>	Are they Valves or Cocks		<u>Both</u>	
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 <u>Yes</u>		
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 <u>6th June</u> of Stern Tube <u>6th June</u> Screw shaft and Propeller <u>6th June</u>						
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
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
Thickness	Range of tensile strength	Are the shell plates welded or flanged	
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
Size of compensating ring	No. and Description of Furnaces in each boiler		Material
Length of plain part	top	Thickness of plates	bottom
Working pressure of furnace by the rules	Combustion chamber plates: Material		Thickness: Sides
Pitch of stays to ditto: Sides	Back	Top	If stays are fitted with nuts or riveted heads
Material of stays	Diameter at smallest part	Area supported by each stay	Working pressure by rules
Material	Thickness	Pitch of stays	How are stays secured
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
Diameter of tubes	Pitch of tubes	Material of tube plates	Thickness: Front
Pitch across wide water spaces	Working pressures by rules		Back
thickness of girder at centre	Length as per rule	Distance apart	Mean pitch of stays
Working pressure by rules	Superheater or Steam chest; how connected to boiler		Girders to Chamber tops: Material
separately	Diameter	Length	Thickness of shell plates
holes	Pitch of rivets	Working pressure of shell by rules	Material
If stiffened with rings	Distance between rings	Working pressure by rules	Description of longitudinal joint
Working pressure of end plates	Area of safety valves to superheater	End plates: Thickness	How stayed
		Are they fitted with easing gear	

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 June 6. 12
 { During erection on board vessel - - }
 Total No. of visits 2

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 Bush and fastenings of sea connections examined before launching and found in good condition.

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.....

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

Committee's Minute Glasgow 19 AUG 1907

Assigned See Glas. Report No.

