

REPORT ON MACHINERY.

No. 20780

Port of GlasgowNo. in Survey held at Glasgow
Reg. Book.Date, first Survey 25th Sept^r

Received at London Office

Last Survey 21st April 1903(Number of Visits 21)

on the

Steamer "Abbot"

Master

Built at PaisleyBy whom built J. Fullerton & Co.Gross
Tons

Net

When built 1903Engines made at GlasgowBy whom made A. Rodger & Co.when made 1903Boilers made at GlasgowBy whom made Lindsay Brown & Co.when made 1903

Registered Horse Power

Owners Carltonford Lough & Co.Port belonging to TravoyNom. Horse Power as per Section 28 61Is Refrigerating Machinery fitted noIs Electric Light fitted no

ENGINES, &c.—Description of Engines

CompoundNo. of Cylinders 2No. of Cranks 2Dia. of Cylinders 16 3/4"Length of Stroke 24"Revs. per minute 130

Dia. of Screw shaft

as per rule 7 1/2"Material of IronIs the screw shaft fitted with a continuous liner the whole length of the stern tube Yes

Is the after end of the liner made water tight

in the propeller boss Yes If the liner is in more than one length are the joints burned one length If the liner does not fit tightly at the partbetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive — If twoliners are fitted, is the shaft lapped or protected between the liners —Length of stern bush 2 1/2"

Dia. of Tunnel shaft

as per rule 6 7/8"

Dia. of Crank shaft journals

as per rule 7 0/8"Dia. of Crank pin 7 1/8"Size of Crank webs 13 1/4"

Dia. of thrust shaft under

collars 7 1/8"Dia. of screw 8 1/2"Pitch of screw 10 1/4"No. of blades 4State whether moveable YesTotal surface 19.2No. of Feed pumps 1Diameter of ditto 2 7/8"Stroke 12"Can one be overhauled while the other is at work YesNo. of Bilge pumps 1Diameter of ditto 2 7/8"Stroke 12"Can one be overhauled while the other is at work —No. of Donkey Engines 1Sizes of Pumps 6 x 6 x 3 1/4"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room One 2 1/2" dia.In Holds, &c. 3 - 2 1/2" dia., 1 - 2 1/2" 15" after peakNo. of bilge injections 1sizes 3 1/2"Connected to condenser, or to circulating pump pumpIs a separate donkey suction fitted in Engine room & size Yes - 2 1/2"Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes 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 BoltAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the discharge pipes above or below the deep water line AboveAre 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 YesWhat pipes are carried through the bunkers For suction How are they protected Wood coveringAre all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges YesWhen were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launch Is the screw shaft tunnel watertight NoneIs it fitted with a watertight door — worked from —

BOILERS, &c.—

(Letter for record (5))Total Heating Surface of Boilers 1109.5Is forced draft fitted NoNo. and Description of Boilers One Single Ended Mult.Working Pressure 130 lbsTested by hydraulic pressure to 260 lbsDate of test 23.2.03 Can each boiler be worked separately —Area of fire grate in each boiler 39.1

No. and Description of safety valves to

each boiler 2 LockburnArea of each valve 5.9Pressure to which they are adjusted 135 lbsAre they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork Width of stokeholdMean dia. of boilers 12 1/2"Length 10 1/2"Material of shell plates SteelThickness 13/16" Range of tensile strength 28Are they welded or flanged noDescrip. of riveting: cir. seams D.R. Laplong. seams D.B.S.Diameter of rivet holes in long. seams 1"Pitch of rivets 5 1/4"Lap of plates or width of butt straps 10 1/2"

Per centages of strength of longitudinal joint

rivets 82.25Working pressure of shell by rules 135 lbsSize of manhole in shell 16" x 12"Size of compensating ring Inc. rivetsNo. and Description of Furnaces in each boiler 2 PlainMaterial SteelOutside diameter 46"

Length of plain part

top 6 1/2"bottom 8 1/8"

Thickness of plates

crown 2 1/32"bottom 2 1/32"Description of longitudinal joint weldNo. of strengthening rings 1 partialWorking pressure of furnace by the rules 132Combustion chamber plates: Material SteelThickness: Sides 9/16"Back 1 1/32"Top 9/16"Bottom 9/16"Pitch of stays to ditto: Sides 8 1/2" x 9 1/4"Back 8" x 8 1/4"Top 8 1/2" x 8 1/2"If stays are fitted with nuts or riveted heads nutsWorking pressure by rules 130 lbsMaterial of stays SteelDiameter at smallest part 1 1/4"Area supported by each stay 78.466Working pressure by rules 145

End plates in steam space:

Material SteelThickness 1 1/16"Pitch of stays 17" x 17"How are stays secured D. nutsWorking pressure by rules 136Material of stays SteelDiameter at smallest part 3 1/8"Area supported by each stay 289Working pressure by rules 133Material of Front plates at bottom SteelThickness 1 1/16"Material of Lower back plate SteelThickness 7/8"Greatest pitch of stays 15"Working pressure of plate by rules —Diameter of tubes 3 1/2"Pitch of tubes 4 3/4"Material of tube plates SteelThickness: Front 1 1/16"Back 1 1/16"Mean pitch of stays 11"Pitch across wide water spaces 13 1/2"Working pressures by rules 140 lbsGirders to Chamber tops: Material Steel

Depth and

thickness of girder at centre (7 x 7 1/8) 2Length as per rule 27.8Distance apart 8 1/2"Number and pitch of Stays in each 2 - 8 1/2"Working pressure by rules 133 lbsSuperheater 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

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W1212-0243

DONKEY BOILER— No. Description *None*

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 _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
Lap of plating _____ Per centage of strength of joint _____ Rivets _____ 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 _____ 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:— *2 propeller blades, 2 top end bolts & nuts, 2 bottom
end bolts & nuts, set of coupling bolts, 2 main bearing bolts, spare feed
& bilge pump valves & check valves, quantity of assorted bolts, nuts etc &
2 boiler tubes, stoppers etc. 1 set of circulating pump valves & 1 set of air pump valves*

The foregoing is a correct description,

A. Rodger & Co. Manufacturer.
for C. Hall-Brown

Dates { During progress of work in shops— 1902: Sep 25. 26. Oct. 2. 9. 21. 29. Nov. 6. 7. 18. 24. 28. Dec. 7. 29. 1903: Feb 6. 13. 16
of Survey while building { During erection on board vessel — 23. Mar. 2 Apr 14. 16. 21
Total No. of visits 21.

Is the approved plan of main boiler forwarded herewith *No*

donkey „ „ „ „ „
Also Forging Report

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

*The engine & boiler of this vessel have been constructed under Special
Survey & are of good materials & workmanship. They have been securely
fitted on board & satisfactorily tried under steam.*

*This vessel is in my opinion eligible for notation **L.M.C. 4.03**
in the Register-Book.*

It is submitted that
this vessel is eligible for
THE RECORD **L.M.C. 4.03**

H.S.
7.5.03

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The amount of Entry Fee. £ 1 : 1 : 1
Special £ 9 : 3 : 1
Donkey Boiler Fee £ : : :
Travelling Expenses (if any) £ : : :
When applied for, 14.5.1903
When received, 7.5.03

H. Gardner-Smith
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Glasgow - 5 MAY 1903

Assigned

L.M.C. 4.03

MACHINERY CERTIFICATE
WRITTEN, 11-5-03



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