

REPORT ON MACHINERY.

7271

No. 4271

Received at London Office

MONDAY 11 JAN 1886

No. in Survey held at
Reg. Book.

Glasgow

Date, first Survey 1st Sept 1885 Last Survey Dec 31st 1885

(Number of Visits)

1241

1318 on the M. S. S. Courland

Tons 803

Master Newman Built at Glasgow By whom built R. Napier & Sons When built 1872-7

Engines made at Glasgow By whom made R. Napier & Sons when made 1872

Boilers made at " By whom made Barclay Curle & Co when made 1883

Registered Horse Power 130 Owners J. Currie Port belonging to Leith

ENGINES, &c.—

Description of Engines Compound Inverted Direct Acting
Diameter of Cylinders 30" & 34" Length of Stroke 36" No. of Rev. per minute Point of Cut off, High Pressure Low Pressure
Diameter of Screw shaft 10" Diam. of Tunnel shaft 9" Diam. of Crank shaft journals 9 3/4" Diam. of Crank pin 9 3/4" size of Crank webs 11 1/2" / 6 3/4"
Diameter of screw 14 1/2" Pitch of screw 15 1/2" No. of blades Four state whether moveable Yes total surface 52 1/2"
No. of Feed pumps Two diameter of ditto 8" Stroke 14 1/2" Can one be overhauled while the other is at work Yes
No. of Bilge pumps Two diameter of ditto 8" Stroke 14 1/2" Can one be overhauled while the other is at work Yes
Where do they pump from All Compartments
No. of Donkey Engines Two Size of Pumps 6" x 12" Stroke 3 1/2" x 4" Where do they pump from Sea Bilge Hotwell & Tanks

Are all the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible
No. of bilge injections One and sizes 5 1/2" Are they connected to condenser, or to circulating pump Circulating
How are the pumps worked By Eccentric
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 Yes Are the discharge pipes above or below the deep water line Below
Are 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 Yes
What pipes are carried through the bunkers Bilge pipes to the Hold & Tank How are they protected By wood casing
Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes
When were stern tube, propeller, screw shaft, and all connections examined in dry dock 15th Dec 1885
Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform

BOILERS, &c.—

Number of Boilers Two Description Round Horizontal Whether Steel or Iron Steel
Working Pressure 40 lbs Tested by hydraulic pressure to 2140 lbs Date of test 5th Dec 1885
Description of superheating apparatus or steam chest Annular with single flue
Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately No
No. of square feet of fire grate surface in each boiler 40 ft Description of safety valves Direct spring No. to each boiler Two
Area of each valve 9.62" Are they fitted with easing gear Yes No. of safety valves to superheater One area of each valve 4"
Are they fitted with easing gear Yes Smallest distance between boilers and bunkers or woodwork about 18" under deck Diameter of boilers 11" 8"
Length of boilers 8' 10" description of riveting of shell long. seams Double riveted circum. seams Double riveted Thickness of shell plates 9/16"
Diameter of rivet holes 3/8" whether punched or drilled Drilled pitch of rivets 3 1/8" Lap of plating Straps 7/16" x 9/16"
Per centage of strength of longitudinal joint 44 7/10 working pressure of shell by rules 44 lbs size of manholes in shell 12" x 16"
Size of compensating rings Double piece fitted No. of Furnaces in each boiler Three
Outside diameter 3 1/2" length, top 6 1/2" bottom 6 1/2" thickness of plates 3/8" description of joint Corrugated if rings are fitted
Greatest length between rings 11' 6" working pressure of furnace by the rules 116 lbs combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"
Pitch of stays to ditto, sides 8 3/4" x 1/2" back 8 3/4" x 1/2" top 7 1/2" x 1/2" If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 41 1/2 lbs
Diameter of stays at smallest part 1 1/8" x 1 1/4" working pressure of ditto by rules 42 lbs end plates in steam space, thickness 7/16"
Pitch of stays to ditto 15" x 15" how stays are secured By double nuts working pressure by rules 43 lbs diameter of stays at smallest part 2 3/8" working pressure by rules 194 lbs Front plates at bottom, thickness 7/16" Back plates, thickness 7/16"
Greatest pitch of stays 16" working pressure by rules Diameter of tubes 3" pitch of tubes 4 1/8" thickness of tube plates, front 7/16" back 7/16" how stayed By tubes pitch of stays 12 3/8" x 8 1/4" width of water spaces 7 1/2"
Diameter of Superheater 4' 2" length 6' 3" thickness of plates 7/16" description of longitudinal joint Double riveted Diam. of rivet holes 3/4"
Pitch of rivets 2 3/8" working pressure of shell by rules 40 lbs diameter of flue 4" thickness of plates 7/16" Is it stiffened with rings Two rings 4' x 5 1/2" x 3/8"
Distance between rings working pressure by rules end plates of superheater, or steam chest; thickness 7/16" how stayed By stays
Superheater or steam chest; how connected to boiler By Copper pipes

State if Report is also sent to the Hull of the Ship

Form No. 100-1

DONKEY BOILER—

Description

7871 Gls
Flat Lided

Made at Glasgow by whom made Barclay Curle & Co. when made 1885 where fixed On upper deck
Working pressure 45 lbs tested by hydraulic pressure to 90 lbs No. of Certificate 1574 fire grate area 18 ft description of sa
valves Direct Spring No. of safety valves One area of each 4" if fitted with easing gear Yes if steam from main boilers
enter the donkey boiler No diameter of donkey boiler 4' 9" length 4' 6" ^{height} 9' 2" description of riveting Single lap
Thickness of shell plates 3/16" + 1/16" diameter of rivet holes 3/16" whether punched or drilled Drilled pitch of rivets 1 3/4" lap of plating 3"
per centage of strength of joint 54 thickness of comb plates 1/16" stayed by Screw Stays 9" x 8 3/4" + 9 1/2" x 8 3/4" 1 1/8" dia
Diameter of furnace, top 3' 6" bottom 3' 6" length of furnace 6' 2" thickness of plates 3/16" description of joint Laps
Thickness of furnace comb plates 1/16" stayed by Tubes working pressure of shell by rules 45
Working pressure of furnace by rules 60 lbs diameter of uptake 4" thickness of end plates 3/16" thickness of water tubes 1/2"

SPARE GEAR.

State the articles supplied:

Two propeller blades (1 pair brasses for Crank pin + top
connecting Rods with 4 bolts complete) 4 Main bearing bolts, 4 Coupling bolts, 1 slide valve
for each engine, 1 Air pump rod, 1 pair main bearing brasses, 5 Air pump valve seats with
4 valves for 2 pumps 22 Boiler tubes, 50 Condenser, and a considerable quantity
bolts nuts, iron assorted India rubber tubes

The foregoing is a correct description,

FOR BARCLAY, CURLE & CO., LTD

Manufacturers

of Boilers

James Gitchrist
General Remarks

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

The Engines have been thro

repaired and overhauled, the Crank & Tunnel Shafting adjusted
Propeller Shaft drawn & bush fitted with new wood on bottom
Sea cocks & valves, overhauled pumps pipes & connections.

Main & Donkey Boilers, new, also safety valves & other
mountings new.

The Machinery & Boilers have been tried under steam
and are now in my opinion in good order & safe to work
eligible to be noted in the Register Book **W.B. L.M.C.**

*His submitted that this
vessel is eligible to have
LMB 85 and LMB 12.85 recorded
M 1/1886*

The amount of Entry Fee .. £ .. received by me,)

Special .. £ 4: 4: "
Main .. £ 8: 8: "
Donkey Boiler Fee .. £ 8: 8: "

Certificate (if required) .. £ 5: 5: " 8/11 1886

To be sent as per margin.

(Travelling Expenses, if any, £ - 5/-)

Committee's Minute

TUESDAY 12 JAN 1886

+ JVB 83

Robert Edmund Taylor & Son Printers, 29, Old Street, Goswell Road, London, E.C.

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

Clyde District

Lloyd's Register
Foundation