

REPORT ON MACHINERY.

316190

2427

ps, or plate
nd punched
Scantlings of
of Materials,
here Tested and
endent, also
Anchor Maker.

Port of Newcastle
No. in Survey held at Newcastle
Date, first Survey 13th Decr/89 Last Survey 24th May 1890
(Number of Visits 26)
on the S.S. British Queen
Master A. Smith Built at Newcastle By whom built Palmer & Sons
Engines made at Newcastle By whom made Palmer & Sons
Boilers made at do By whom made do
Registered Horse Power 500 Owners British Shipowners Co
When built 1890
when made 1890
when made 1890
Port belonging to Liverpool

Received at London Office
FRI 6 JUNE 1890
4388
Tons 2807

GINES, &c.—
Description of Engines Triple expansion on three cranks
Diameter of Cylinder 29.47.76 Length of Stroke 51 No. of Rev. per minute 75 Point of Cut off, High Pressure 3/4 Low Pressure 2 1/2
Diameter of Screw shaft 14 1/2 Diam. of Tunnel shaft 14 Diam. of Crank shaft journals 14 1/2 Diam. of Crank pin 4 1/2 size of Crank webs 10 x 19 1/2
Diameter of screw 18.0 Pitch of screw 19.3 No. of blades 4 state whether moveable no total surface 90.8
No. of Feed pumps 2 diameter of ditto 8 Stroke 21 Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 diameter of ditto 4 1/2 Stroke 30 Can one be overhauled while the other is at work yes
Where do they pump from all bilges, holds &c.
No. of Donkey Engines 4 Size of Pumps Ballast & water
Where do they pump from Ballast from all bilges, sea 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 yes
How are the pumps worked by levers over condenser from aft engine
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 above
Are the blow off cocks fitted with a spigot and brass covering plate yes
How are they protected yes
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 yes
Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from top platform

BOILERS, &c.—
Number of Boilers Two Description Cyl double ended Whether Steel or Iron Steel
Working Pressure 150 Tested by hydraulic pressure to 300 Date of test March 13th 1890
Description of superheating apparatus or steam chest none
Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately yes
Area of square feet of fire grate surface in each boiler 218 Description of safety valves spring No. to each boiler two
Area of each valve 15.9 Are they fitted with easing gear yes No. of safety valves to superheater yes area of each valve yes
Are they fitted with easing gear yes Smallest distance between boilers and bunkers or woodwork 12 Diameter of boilers 15.0
Length of boilers 17.0 description of riveting of shell long. seams d & b circum. seams lap & d Thickness of shell plates 1 1/4
Diameter of rivet holes 1 1/4 whether punched or drilled d pitch of rivets 4 1/2 Lap of plating 1 1/2
Percentage of strength of longitudinal joint 83.3 working pressure of shell by rules 150.4 size of manholes in shell 16 x 12
No. of compensating rings yes No. of Furnaces in each boiler two
Side diameter 3.8 length, top 70 bottom 70 thickness of plates 3/16 description of joint yes if rings are fitted yes
Greatest length between rings yes working pressure of furnace by the rules 159 combustion chamber plating, thickness, sides 3/16 back yes top 3/16
Pitch of stays to ditto, sides 7/16 back yes top 8 If stays are fitted with nuts or riveted heads yes working pressure of plating by yes
Rules 151 Diameter of stays at smallest part 1 1/4 working pressure of ditto by rules 164 end plates in steam space, thickness 1 1/2
Pitch of stays to ditto 16 how stays are secured drawn working pressure by rules 159 diameter of stays at yes
Smallest part 2 5/8 working pressure by rules 158 Front plates at bottom, thickness 3/4 Back plates, thickness yes
Pitch of stays yes working pressure by rules yes Diameter of tubes 3 1/2 pitch of tubes 4 3/4 thickness of tube yes
Superheater or Steam chest yes length yes thickness of plates yes description of longitudinal joint yes diam. of rivet holes yes
working pressure of shell by rules yes diameter of flue yes thickness of plates yes If stiffened with rings yes
Rings yes working pressure by rules yes end plates of superheater, or steam chest; thickness yes how stayed yes
Superheater or steam chest; how connected to boiler yes

Report No. 316190 sent to Gov. 5/6/90

Description of furnaces

WNC814-0347

REPORT ON MACHINERY

KEY BOILER— Description

Newcastle by whom made *Palmer & Co Ltd* when made *1888* where fixed *on deck*
 working pressure *80* tested by hydraulic pressure to *160* No. of Certificate *3171* fire grate area *32.56* description of safety
 valves *spring* No. of safety valves *two* area of each *7.07* if fitted with easing gear *yes* if steam from main boilers can
 enter the donkey boiler *no* diameter of donkey boiler *10.0* length *9.3* description of riveting *truss lap*
 Thickness of shell plates *1 1/2* diameter of rivet holes *7/8* whether punched or drilled *d* pitch of rivets *3 1/4* lap of plating *6*
 percentage of strength of joint *73* thickness of crown plates *4/6* stayed by *10 stays 2"*
 Diameter of furnace, top *3.0* bottom *1 1/2* length of furnace *6.0* thickness of plates *1 1/2* description of joint *ab straps*
 Thickness of furnace crown plates *1 1/2* stayed by *1 1/2 stays* working pressure of shell by rules *82*
 Working pressure of furnace by rules *91* diameter of uptake tube *4 1/6* thickness of plates *4/6* thickness of water tubes *ordinary*

SPARE GEAR. State the articles supplied:

Launch shaft in centrifugal pump, air pump, bucket rod, slide valve spindle, 12 coupling bolts, 1 thrust shoe, 9 propeller bolts & 2 blades, 2 bolts in main bearings, set of connecting rod bolts (2 top & 2 bottom) pan bottom end brasses, belt valves & seats, guide shoe, piston springs, safety valve springs, Donkey valves, bar iron, bolts & nuts & usual engine room outfit.

The foregoing is a correct description,

Manufacturer.

J. M. Reed

General Remarks

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

The machinery of this vessel has been constructed under Special Survey, the materials and workmanship are sound & good & eligible in my opinion to be classed + L.M.C 5.90 in the Society's Register Book.

This vessel has been fitted with the electric light by Messrs W. Hallen & Co of London. The installation is on the simple wire system but with double wire in the vicinity of the compass. The fittings appear to be of a substantial character and to have the necessary safety fuses & protected from wet & weathering. Side and mast head lamps are lighted by electricity.

*Heating surface 7100 sq ft
 H. H. R. 442.*

It is submitted that this vessel is eligible to have + L.M.C. 5.90 recorded.

9-6-90

The amount of Entry Fee .. £ 3 : - : - received by me,

Special .. £ 42 : 2 : -

Donkey Boiler Fee .. £ 2 : 2 : -

Certificate (if required) .. £ 16 : 6 : 1890

To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

TUES. 10. JUNE 1890

+ L.M.C 5/90

Engineer Surveyor to Lloyd's Register of British & Foreign

W. Hallen
 Lloyd's Register Foundation