

REPORT ON MACHINERY.

17407

Survey held at

Newcastle

Date, first Survey *29th May*

Received at London Office *Recd 10 MAR, 1884*

Book.

Last Survey *29 Decr 1883*

on the

Screw Steamer "H.C. Gareb"

(Number of Visits *17*)

Tons *1366.73*
882.24

ter *C. Boniface* Built at *Newcastle*

By whom built *Rep. W. M. Smith*

When built *1883*

ines made at *Newcastle*

By whom made *Dalsland Shipway Co. Ltd.*

when made *1883*

ers made at *do*

By whom made *do*

when made *1883*

istered Horse Power *150*

Owners *J. Scutten Sons & Co*

Port belonging to *London*

INES, &c.—

ription of Engines *Vertical acting compound surface Condensing*

eter of Cylinders *30" x 5-8"* Length of Stroke *36"* No. of Rev. per minute *65* Point of Cut off, High Pressure *9/16* Low Pressure *.5*

eter of Screw shaft *10 1/4"* Diam. of Tunnel shaft *10"* Diam. of Crank shaft journals *10 1/2"* Diam. of Crank pin *10 1/2"* size of Crank webs *6 1/8" x 12 1/4"*

eter of screw *13.2"* Pitch of screw *16.0"* No. of blades *4* state whether moveable *no* total surface *49.8*

of Feed pumps *2* diameter of ditto *3 3/4"* Stroke *20"* Can one be overhauled while the other is at work *yes*

of Bilge pumps *2* diameter of ditto *3 3/4"* Stroke *20"* Can one be overhauled while the other is at work *yes*

ere do they pump from *Tanks, holds, bipes, & hot well*

of Donkey Engines *2* Size of Pumps *8" x 4" & 10" x 8"* Where do they pump from *Tanks, holds, bipes*

both aft well, hot well & sea

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*

of bilge injections *one* and sizes *4"* Are they connected to condenser or to circulating pump *Circulating pump*

are the pumps worked *Locos over condenser*

all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *both*

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*

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*

at pipes are carried through the bunkers *none* How are they protected *—*

all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *yes*

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 *now*

the screw shaft tunnel watertight *yes* and fitted with a sluice door *yes* worked from *upper platform*

ILERS, &c.—

umber of Boilers *Two* Description *Cylindrical Single end* Whether Steel or Iron *Steel*

orking Pressure *80 lbs* Tested by hydraulic pressure to *100 lbs* Date of test *15. 8. 83* No. of Co. *1377*

escription of superheating apparatus or steam chest *vertical dome*

n each boiler be worked separately *yes* Can the superheater be shut off and the boiler worked separately *—*

. of square feet of fire grate surface in each boiler *36.5* Description of safety valves *Spring* No. to each boiler *2*

ea of each valve *9.62* Are they fitted with easing gear *yes* No. of safety valves to superheater *—* area of each valve *—*

e they fitted with easing gear *—* Smallest distance between boilers and bunkers or woodwork *12"* Diameter of boilers *12.6*

ngth of boilers *10.6"* description of riveting of shell long. seams *lap tubes* circum. seams *lap dome* Thickness of shell plates *3/4"*

iameter of rivet holes *1"* whether punched or drilled *drilled* pitch of rivets *3 3/8"* Lap of plating *7 1/4"*

rcentage of strength of longitudinal joint *68%* working pressure of shell by rules *79.2 lbs* size of manholes in shell *15" x 11 1/2"*

se of compensating rings *7 1/2" x 3/4"* No. of Furnaces in each boiler *2*

tside diameter *3.6"* length, top *7.0"* bottom *6.6"* thickness of plates *1/32"* description of joint *d. butt strap* if rings are fitted *—*

reatest length between rings *6.6"* working pressure of furnace by the rules *92 lbs* combustion chamber plating, thickness, sides *1/2"* back *1/2"* top *1/2"*

itch of stays to ditto, sides *8 1/2" x 9"* back *8 1/2" x 9"* top *21"* If stays are fitted with nuts or riveted heads *both* working pressure of plating by

rules *80 lbs* Diameter of stays at smallest part *1 1/8"* working pressure of ditto by rules *97 lbs* end plates in steam space, thickness *3/4"*

orm.itch of stays to ditto *17 1/2" x 17"* how stays are secured *d. butt straps* working pressure by rules *80 lbs* diameter of stays at

smallest part *2 3/8"* working pressure by rules *97 lbs* Front plates at bottom, thickness *1/16"* Back plates, thickness *1/16"*

reatest pitch of stays *13"* working pressure by rules *—* Diameter of tubes *3 1/4"* pitch of tubes *4 5/8"* thickness of tube

plates, front *3/4"* back *3/4"* how stayed *tubes* pitch of stays *13 3/8"* width of water spaces *6"*

diameter of Superheater or Steam chest *3.8"* length *5.6"* thickness of plates *1/2"* description of longitudinal joint *lap dome* diam. of rivet holes *1/4"*

itch of rivets *2 1/2"* working pressure of shell by rules *171 lbs* diameter of flue *—* thickness of plates *—* If stiffened with rings *—*

istance between rings *—* working pressure by rules *—* end plates of superheater, or steam chest; thickness *1/16"* how stayed *Spherical*

Superheater or steam chest; how connected to boiler *Contracted*

NWC 789-0166

Boiler Drawing made of Steel web sent forward

Report recd 8/18/84 sent to Com. 3/13/84

DONKEY BOILER— Description *Critical crop tubes*
Made at *Gateshead* by whom made *Blake Chapman & Co* when made *13.10.83* where fixed *Stockholm*
Working pressure *10 lb* tested by hydraulic pressure to *160 lb* No. of Certificate *1456* fire grate area *20 sq* description of safety
valves *Spring* No. of safety valves *1* area of each *9.62* if fitted with easing gear *yes* if steam from main boilers can
enter the donkey boiler *no* diameter of donkey boiler *6' 0"* length *12' 6"* description of riveting *lap donkey*
Thickness of shell plates *9/16"* diameter of rivet holes *15/16"* whether punched or drilled *punched* pitch of rivets *3 3/8"* lap of plating *4 1/2"*
per centage of strength of joint *42%* thickness of crown plates *9/16"* stayed by *dished & 6 Stay 1 1/2"* effective dia
Diameter of furnace, top *4' 8"* bottom *5' 1 1/4"* length of furnace *5' 9"* thickness of plates *9/16"* description of joint *lap single*
Thickness of furnace crown plates *9/16"* stayed by *as above* working pressure of shell by rules *92 lb*
Working pressure of furnace by rules *74 lb* diameter of uptake *15"* thickness of plates *7/16"* thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied: *Half crank shaft, 2 main bearing bolts & nuts, 2 top end bolts & nuts, 2 bottom end bolts & nuts, set of coupling bolts & nuts, set of feed, bilge, & feed donkey valves, slide valve spring, complete, piston, patent, tail end shaft & propeller, set of brass valve for air pump, 14 holding down bolts & nuts, 9 cylinder cover studs & a quantity of iron.*
The foregoing is a correct description, for air pump.
FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LTD. Manufacturer.
Jan 9/84 *W. Lloyd* Director

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been specially surveyed during construction the material and workmanship good and render the vessel eligible in my opinion to have the notification L. R. C. 12. 83 in the Register Book of the Society.

This vessel is submitted to have the certificate + Jan 12. 83 recorded

*84
13
4*

The amount of Entry Fee *£ 2 : - : -* received by me,
Special .. *£ 22 : 10 : -*
Donkey Boiler Fee .. *£ - : - : -*
Certificate (if required) *£ - : - : -* 12th Jan 1884
To be sent as per margin.
(Travelling Expenses, if any, £ - : - : -)

Committee's Minute

FRIDAY 7 MARCH 1884

Richard Hirst
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

