

# REPORT ON MACHINERY.

THUR, 21 APL 1898

Port of WEST HARTLEPOOL

Received at London Office

Survey held at WEST HARTLEPOOL

Date first Survey 17<sup>th</sup> June 1897 Last Survey 12<sup>th</sup> April 1898

Book. on the Screw Steamer "Cannibal"

Tons { Gross 1649  
Net 1044

Built at B. D. Pool By whom built Li. D. Gray & Co. Ld.

When built 1898

Machinery made at B. D. Pool By whom made Central Marine Engineering Co. Ld.

when made 1898

Machinery made at Do By whom made Do when made 1898

Indicated Horse Power 150 Owners K. A. K. Nikolajew & Melinberg Port belonging to Melinberg

Horse Power as per Section 28 150 Is Electric Light fitted No

**ENGINES, &c.**—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

Diameter of Cylinders 19.30 1/2 x 51 Length of Stroke 36 Revolutions per minute 65 Diameter of Screw shaft 9.625  
as per rule 8.72 Diameter of Crank shaft journals 9 1/2 Diameter of Crank pin 9 1/2 Size of Crank webs 5 1/2 x 13 1/2  
as fitted 9

Diameter of screw 14.0 Pitch of screw Differential No. of blades 10 State whether moveable No Total surface 62 1/2

No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 3 1/2 x 5 1/2 & 4 x 8 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Three 2 1/2" & one 2 1/4" In Holds, &c. Being Suctions 2 1/4" on both  
sides of both holds & one 2 1/2" in the after well.

No. of bilge injections 1 sizes 5" Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size Yes 2 1/2"

Are 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 None

Are 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

How are the pipes carried through the bunkers None How are they protected —

Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes

Were stern tube, propeller, screw shaft, and all connections examined in dry dock None Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from Upper Platform

**BOILERS, &c.**— (Letter for record 28) Total Heating Surface of Boilers 2140 Is forced draft fitted No

No. and Description of Boilers One Single ended Working Pressure 160 Tested by hydraulic pressure to 350

Year of test 12.97 Can each boiler be worked separately — Area of fire grate in each boiler 51 1/2 No. and Description of safety valves to boiler Two Spring Area of each valve 8.39 Pressure to which they are adjusted 160 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2.0 Mean diameter of boilers 16.6

Material of shell plates Steel Thickness 1 3/8 Description of riveting: circum. seams None long. seams Butt strap

Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 8 1/2 width of butt straps 18 3/4

Percentage of strength of longitudinal joint 86.5 Working pressure of shell by rules 160.8 Size of manhole in ends 16 x 12

No. of compensating ring 2 1/2 x 20 No. and Description of Furnaces in each boiler 3 Purves Material Steel Outside diameter 46 1/2

Thickness of plain part 6.0 Thickness of plates 1 1/2 Description of longitudinal joint Butt No. of strengthening rings —

Working pressure of furnace by the rules 162 Combustion chamber plates: Material Steel Thickness: Sides 1 3/8 Back 1 3/8 Top 1 3/8 Bottom 2 3/8

No. of stays to ditto: Sides 8 1/2 Back 8 1/2 Top 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 163

Material of stays Steel Diameter at smallest part 1.38 Area supported by each stay 740 Working pressure by rules 161 End plates in steam space: Material Steel Thickness 1 3/8 Pitch of stays 23 1/2 How are stays secured By nuts Working pressure by rules 163 Material of stays Steel

Diameter at smallest part 3.16 Area supported by each stay 4360 Working pressure by rules 171 Material of Front plates at bottom Steel

Thickness 1 1/8 Material of Lower back plate Steel Thickness 1 Greatest pitch of stays 14 1/2 Working pressure of plate by rules 170

Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 Material of tube plates Steel Thickness: Front 1 5/8 Back 2 1/8 Mean pitch of stays 9"

Distance across wide water spaces 14 1/2 Working pressures by rules 166, 190 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 1/2 x 1 1/4 Length as per rule 27 Distance apart 7 1/2 Number and pitch of Stays in each Two 8" pitch

Working pressure by rules 180 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked —

Material of shell plates Steel Description of longitudinal joint — Diam. of rivet —

Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —

Are they fitted 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 —

W444-0109

**DONKEY BOILER**— Description *Blakes patent*  
 Made at *Middlesbrough* By whom made *James Bealparth & Co* When made *1897* Where fixed *Lothian*  
 Working pressure *80* tested by hydraulic pressure to *160* No. of Certificate *1566* Fire grate area *21 1/2* Description of safety valves *Two*  
 No. of safety valves *2* Area of each *7.07* Pressure to which they are adjusted *84 lb* If fitted with easing gear *yes* If steam from m  
 enter the donkey boiler *no* Diameter of donkey boiler *6.6* Length *18.6* Material of shell plates *Steel* Thickn  
 Description of riveting long. seams *Lap double* Diameter of rivet holes *1 1/2* Whether punched or drilled *Punched* Pitch of  
 Lap of plating *1 1/2* Per centage of strength of joint Rivets *28.3* Thickness of shell crown plates *7/16* Radius of do *stem* No. of Stays  
 Dia. of stays *-* Diameter of furnace Top *2.6* Bottom *4.4* Length of furnace *5.4* Thickness of furnace plates *3/16*  
 joint *Lap Single* Thickness of furnace crown plates *1 1/2* Stayed by *bished to 3.9 rad* Working pressure of shell by  
 Working pressure of furnace by rules *86 lb* Diameter of uptake *2 1/2* Thickness of uptake plates *1 1/2* Thickness of uptake tubes

**SPARE GEAR.** State the articles supplied:— *2 main bearing bolts & nuts, 2 top end  
 and nuts, 2 bottom end bolts & nuts, 1 set of shaft  
 bolts & nuts, 1 set of feed valves, 1 set of tilge valves,  
 of Springs for M.P. piston, 1 propeller, nuts, bolts & rivets*  
 The foregoing is a correct description,  
 Manufacturers of Engines & Boilers only *Williams & Co*

Dates of Survey while building	During progress of work in shops—	1897. June 17, 18, 24 July 1, 2, 26, 28, 29 Aug 4, 6, 14, 15, 16, 17, 20, 21, 22, 23, 25, 28, 29, 30
	During erection on board vessel—	28, 29, Nov 1, 4, 5, 8, 10, 11, 12, 15, 16, 17, 19, 20, 22, 23, 24, 26 Dec 1, 1898, Jan 8, 31, Feb 3, 8
	Total No. of visits	May 2, 4, 7, 9, 11, 18, 23, 24, 25, 31, Apr 12.

**General Remarks** (State quality of workmanship, opinions as to class, &c.) *The machinery has been  
 Specially Inspected during construction the material  
 and workmanship good & renders the vessel eligible  
 in our opinion to have the Record in T.M.C. 4.98 in  
 Register Book of the Society.*

It is submitted that  
 this vessel is eligible for  
 THE RECORD. + L.M.C. 4.98

*LL*  
 22/4/98

WEST HARTLEPOOL

Certificate (if required) to be sent to

The amount of Entry Fee..	£ 2 : : : When applied for,
Special .. .. .	£ 22 : 10 : : : 19.4.98
Donkey Boiler Fee .. .	£ MACHINERY CERTIFICATE
Travelling Expenses (if any) £	WRITTEN : : : 19.4.98

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

Committee's Minute **FRI. 22 APR 1898**  
 Assigned + L.M.C. 4.98

