

W. H. P. No. 10374.  
(Doc) 35512

# REPORT ON MACHINERY.

Port of NEWCASTLE-ON-TYNE

Received at London Office. SAT. 16 OCT 1897

No. in Survey held at South Shields W. H. Pool Date, first Survey July 16 1897 Last Survey Oct. 15 1897

Book. S. S. Winston (Number of Visits 12)

ter Built at Hest Harlepool By whom built H. Gray & Co. Ltd Tons } Gross 1190  
Net 743

ines made at Harlepool By whom made J. Richardson & Son when made 1846

ers made at South Shields By whom made J. S. Ellingham & Co when made 2-10-97

istered Horse Power Owners H. Johnson & Co Port belonging to H. Harlepool

Horse Power as per Section 28 136 Is Electric Light fitted No

## ENGINES, &c.—Description of Engines

No. of Cylinders	No. of Cranks	Revolutions per minute	Diameter of Screw shaft as per rule
Diameter of Cylinders	Length of Stroke	Diameter of Crank shaft journals	Diameter of Crank pin
Diameter of Tunnel shaft as fitted	Diameter of Crank shaft journals	Diameter of Crank pin	Size of Crank webs
Diameter of screw	Pitch of screw	No. of blades	State whether moveable
No. of Feed pumps	Diameter of ditto	Stroke	Can one be overhauled while the other is at work
No. of Bilge pumps	Diameter of ditto	Stroke	Can one be overhauled while the other is at work
No. of Donkey Engines	Sizes of Pumps	No. and size of Suctions connected to both Bilge and Donkey pumps	
Engine Room	In Holds, &c.		

of bilge injections sizes Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size

all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

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

they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the discharge pipes above or below the deep water line

they each fitted with a discharge valve always accessible on the plating of the vessel Are the blow off cocks fitted with a spigot and brass covering plate

t pipes are carried through the bunkers How are they protected

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

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

ere stern tube, propeller, screw shaft, and all connections examined in dry dock Is the screw shaft tunnel watertight

fitted with a watertight door worked from

## BOILERS, &c.—

(Letter for record (S) ) Total Heating Surface of Boilers 1964 Is forced draft fitted No

and Description of Boilers Multitubular Cyl. Double Working Pressure 100 lbs Tested by hydraulic pressure to 200 lbs

of test 2/10/97 Can each boiler be worked separately ✓ Area of fire grate in each boiler 620 No. and Description of safety valves to boiler Inv. Spring direct. Area of each valve 4.072 Pressure to which they are adjusted 9.5 lbs. Are they fitted

easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 2'-8" Mean diameter of boilers 13 1/4"

h 14-6" Material of shell plates Steel Thickness 3/8" Description of riveting: circum. seams lap & r. long. seams lap 3 rows.

eter of rivet holes in long. seams 1 1/4" Pitch of rivets 1 1/4" Lap of plates or width of butt straps 4 1/2"

entages of strength of longitudinal joint rivets 38 Working pressure of shell by rules 100 lbs Size of manhole in shell 16x12"

f compensating ring 7x1 1/16" No. and Description of Furnaces in each boiler 4 plain Material Steel Outside diameter 38"

th of plain part top 63 Thickness of plates crown 1/2 Description of longitudinal joint lap & r No. of strengthening rings 1

ing pressure of furnace by the rules 105 Combustion chamber plates: Material Steel Thickness: Sides 19/32" Back DEnd. Top 19/32" Bottom 9/16"

of stays to ditto: Sides 10 1/2" Back DEnd Top 10 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 110 lbs

rial of stays Steel Diameter at smallest part 1 1/32" Area supported by each stay 110 1/2" Working pressure by rules 102 lbs End plates in steam space:

rial Steel Thickness 15/16" Pitch of stays 18x21" How are stays secured on riv. Working pressure by rules 109 Material of stays Steel

eter at smallest part 2 1/32" Area supported by each stay 3785 Working pressure by rules 109 lbs Material of Front plates at bottom Steel

ness 4" Material of Lower back plate DEnd Thickness DEnd Greatest pitch of stays DEnd Working pressure of plate by rules 109

eter of tubes 2 1/4" Pitch of tubes 4x3 7/8" Material of tube plates Steel Thickness: Front 15/16" Back 7/8" Mean pitch of stays 7 1/10"

across wide water spaces 13 1/2" Working pressures by rules DEnd 120 lbs Girders to Chamber tops: Material Steel Depth and

ness of girder at centre 7x1 1/16x2 1/2" Length as per rule 36" Distance apart 10 1/2" Number and pitch of Stays in each 2: 10 1/2"

ing pressure by rules 107 Steam chest; how connected to boiler Riv. Can the superheater be shut off and the boiler worked

tely Diameter 36" Length 0 4/8" Thickness of shell plates 3/8" Material Steel Description of longitudinal joint A-S r. Diam. of rivet

7/8" Pitch of rivets 2 1/4" Working pressure of shell by rules 120 Diameter of flue Material of flue plates Thickness

ened with rings Distance between rings Working pressure by rules 110 End plates: Thickness 9/16" How stayed Special

ing pressure of end plates 110 Area of safety valves to superheater Are they fitted with casing gear



**DONKEY BOILER**— Description *Vertical with three cross tubes.*  
 Made at *Stockton* By whom made *Sutton & Co. (Ltd)* When made *1897* Where fixed *Slope hold*  
 Working pressure *90 lbs.* tested by hydraulic pressure to *160 lbs.* No. of Certificate *1567* Fire grate area *19.6 sq.* Description of safety valves *Spring direct*  
 No. of safety valves *2* Area of each *5.44 sq.* Pressure to which they are adjusted *90 lbs.* 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"* Material of shell plates *steel* Thickness *13/32"*  
 Description of riveting long. seams *double riv. lap.* Diameter of rivet holes *13/16"* Whether punched or drilled *punched* Pitch of rivets *2 1/2"*  
 Lap of plating *4 1/2"* Per centage of strength of joint Rivets *79* Thickness of shell crown plates *17/32"* Radius of do. *5'-0"* No. of Stays to do. *6*  
 Dia. of stays. *1 1/2" off.* Diameter of furnace Top *4'-10"* Bottom *5'-3"* Length of furnace *5'-3"* Thickness of furnace plates *19/32"* Description of joint *lap* Thickness of furnace crown plates *9/16"* Stayed by *same as shell* Working pressure of shell by rules *95*  
 Working pressure of furnace by rules *90 lbs.* Diameter of uptake *14"* Thickness of uptake plates *7/16"* Thickness of water tubes *3/8"*

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

*M. I. Thompson* Manufacturer. *Main boiler*

Dates of Survey while building  
 During progress of work in shops - - -  
 During erection on board vessel - - -  
 Total No. of visits  
 - 1897 - July 16 Aug 4 13 20 30 Sep 15 21 Oct 2 11 12 13 15.

General Remarks (State quality of workmanship, opinions as to class, &c. *The main boiler has been built under special survey. The materials and workmanship are good, and have been tested as required by the rules. The work in connection with fitting these boilers on board, has been satisfactorily completed.*

WEST HARTLEPOOL

Certificate (if required) to be sent to

The amount of Entry Fee... £ : : When applied for.  
 Special ... £ 4 : 18 : 11. 10. 1897  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 MACHINERY ... 18/10/97

*J. Smith*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUES. 19 OCT 1897  
 Assigned

