

# REPORT ON MACHINERY.

Port of *West Hartlepool*

THUR. AUG 22 1901

Received at London Office

No. in Survey held at *Hartlepool* Date, first Survey *3<sup>rd</sup> Aug. 1900* Last Survey *16<sup>th</sup> Aug. 1901*

Reg. Book. *1002* on the *Steel S.S. Soestdyk* (Number of Visits *130*)

Tons Gross *6465.68*  
Net *4207.06*

Master *Bruinmans* Built at *H. Hartlepool* By whom built *Furness Withy & Co. Ltd.* When built *1901*

Engines made at *Hartlepool* By whom made *Richardsons, Westgarth & Co. Ltd.* when made *1901*

Boilers made at *Hartlepool* By whom made *do do* when made *1901*

Registered Horse Power *490* Owners *Holland American Steam Navigation Co. (Holland American Ship)* Port belonging to *Rotterdam*

Nom. Horse Power as per Section 28 *489* Is Refrigerating Machinery fitted *No* Is Electric Light fitted *Yes*

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

Dia. of Cylinders *28" - 46" - 74"* Length of Stroke *48"* Revs. per minute *40* Dia. of Screw shaft *15"* Lgth. of stern bush *5' - 4 1/2"*

Dia. of Tunnel shaft *13.8"* Dia. of Crank shaft journals *14.8"* Dia. of Crank pin *14 3/4"* Size of Crank webs *9 1/2" x 23 1/4"* Dia. of thrust shaft under collars *15"* Dia. of screw *18' 0"* Pitch of screw *17' 0" to 20' 0"* No. of blades *4* State whether moveable *Yes* Total surface *89.4 sq. ft.*

No. of Feed pumps *2* Diameter of ditto *3 3/4"* Stroke *24"* Can one be overhauled while the other is at work *Yes*

No. of Bilge pumps *2* Diameter of ditto *4 1/2"* Stroke *24"* Can one be overhauled while the other is at work *Yes*

No. of Donkey Engines *no* Sizes of Pumps *Feed 6" x 8" duplex* No. and size of Suctions connected to both Bilge and Donkey pumps *Ballast 10" x 9"*

In Engine Room *four 3 1/2" dia.* In Holds, &c. *thirteen - One 2 1/2" dia. to fore peak.*

No. of bilge injections *one* sizes *4"* Connected to condenser, or to circulating pump *per pump* Is a separate donkey suction fitted in Engine room & size *Yes 3 1/2"*

Are all 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 *Yes*

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 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 *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.*

When were stern tube, propeller, screw shaft, and all connections examined in dry dock *New vessel* Is the screw shaft tunnel watertight *Yes*

Is it fitted with a watertight door *Yes* worked from *Upper platform.*

BOILERS, &c. — (Letter for record *S.*) Total Heating Surface of Boilers *8140 sq. ft.* Is forced draft fitted *No.*

No. and Description of Boilers *Four single ended. bef. Mult.* Working Pressure *180 lbs.* Tested by hydraulic pressure to *360 lbs.*

Date of test *8-2-01* Can each boiler be worked separately *Yes.* Area of fire grate in each boiler *52 sq. ft.* No. and Description of safety valves to each boiler *Two spring direct* Area of each valve *7.7"* Pressure to which they are adjusted *185 lbs.* Are they fitted with easing gear *Yes.*

Smallest distance between boilers or uptakes and bunkers or woodwork *24"* Mean dia. of boilers *14' - 6"* Length *10' - 6"* Material of shell plates *steel*

Thickness *1 1/32"* Range of tensile strength *28/32* Are they welded or flanged *No* Descrip. of riveting: cir. seams *treble* long. seams *treble*

Diameter of rivet holes in long. seams *1 1/32"* Pitch of rivets *9 3/8"* Lap of plates or width of butt straps *19 3/4"*

Per centages of strength of longitudinal joint: rivets *86.1* Working pressure of shell by rules *204 lbs.* Size of manhole in shell *13" x 16 1/2"*

Size of compensating ring *30" x 30" x 1 1/32"* No. and Description of Furnaces in each boiler *3 Morrison* Material *steel* Outside diameter *3' - 9 1/2"*

Length of plain part: top *6' - 6"* crown *9"* Description of longitudinal joint *weld* No. of strengthening rings *✓*

Working pressure of furnace by the rules *193 lbs.* Combustion chamber plates: Material *steel* Thickness: Sides *5/8"* Back *5/8"* Top *5/8"* Bottom *15/16"*

Pitch of stays to ditto: Sides *7 7/8"* Back *7 7/8"* Top *7 7/8"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *236 lbs.*

Material of stays *steel* Diameter at smallest part *1 3/8"* Area supported by each stay *55 sq. in.* Working pressure by rules *200 lbs.* End plates in steam space:

Material *steel* Thickness *15/16"* Pitch of stays *15 1/4" - 13 1/2"* How are stays secured *D. N. M.* Working pressure by rules *194 lbs.* Material of stays *steel*

Diameter at smallest part *2 1/2"* Area supported by each stay *202 sq. in.* Working pressure by rules *211 lbs.* Material of Front plates at bottom *steel*

Thickness *13/16"* Material of Lower back plate *steel* Thickness *25/32"* Greatest pitch of stays *12 5/8"* Working pressure of plate by rules *190 lbs.*

Diameter of tubes *3 1/2"* Pitch of tubes *4 5/8"* Material of tube plates *steel* Thickness: Front *1 1/2"* Back *25/32"* Mean pitch of stays *9 1/4"*

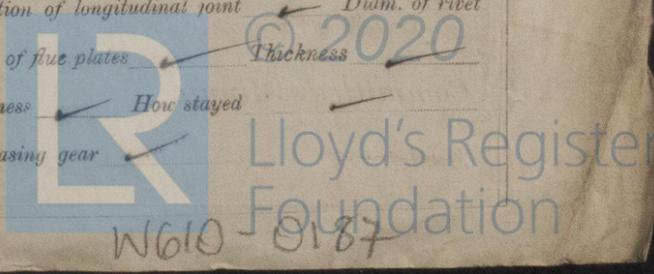
Pitch across wide water spaces *14 1/2"* Working pressures by rules *194 lbs.* Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre *7" x 15"* Length as per rule *29"* Distance apart *7 1/2"* Number and pitch of Stays in each *Two 7 7/8"*

Working pressure by rules *180 lbs.* Superheater or Steam chest; how connected to boiler *None* Can the superheater be shut off and the boiler worked separately *✓*

Diameter *✓* Length *✓* Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet holes *✓* Pitch of rivets *✓* Working pressure of shell by rules *✓* Diameter of flue *✓* Material of flue plates *✓* Thickness *✓*

If stiffened 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 *✓*



Is a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent?

