

# REPORT ON MACHINERY.

7478

No. 7478 Port of Hull Received at London Office WED 8 OCT 1890  
 No. in Survey held at Hull Date, first Survey April 25<sup>th</sup> Last Survey Oct. 1<sup>st</sup> 1890  
 eg. Book. \_\_\_\_\_ (Number of Visits 28)  
 on the Iron Steam Trawler "San Pedro" Tons { Gross 130  
 Net 44  
 Master Brain Built at Hull By whom built Coote, Wotton & Gemmell When built 1890  
 Engines made at Hull By whom made Chas D Holmes & Co when made 1890  
 Millers made at Hull By whom made Chas D Holmes & Co when made 1890  
 Registered Horse Power 45 Owners Richard Lovett Collier Port belonging to Hull

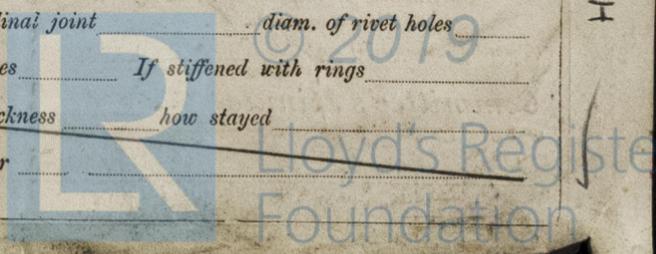
## ENGINES, &c.—

Description of Engines Simple Compound Inverted Direct Acting No. of Cylinders Three  
 No. of Cylinders 1 1/2 18" 30" Length of Stroke 22" Rev. per minute 116 Point of Cut off, High Pressure .56 I.P. .6  
 Low Pressure .65  
 Diameter of Screw shaft 6 1/8" Diam. of Tunnel shaft 5 1/2" Diam. of Crank shaft journals 5 1/8" Diam. of Crank pin 5 1/8" size of Crank webs 7 x 4 1/4"  
 Diameter of screw 7.6" Pitch of screw 11 1/2 to 11 1/4" No. of blades 4 state whether moveable No total surface 21.45 sq ft  
 No. of Feed pumps Two diameter of ditto 1 3/4" Stroke 22" Can one be overhauled while the other is at work Yes  
 No. of Bilge pumps One diameter of ditto 2 1/8" Stroke 22" Can one be overhauled while the other is at work -  
 Where do they pump from Engine room Bilge & hold.  
 No. of Donkey Engines One Size of Pumps 3 1/2 x 5" duplex Where do they pump from Bilge, hold, sea & boiler.  
 Discharges to Boiler Condenser, Deck & Overboard, Also 3" Ejector with suction in  
Engine room Bilge and discharge on deck.  
 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 -  
 No. of bilge injections One and sizes 2 1/4" Are they connected to condenser, or to circulating pump Circulating Pump  
 How are the pumps worked Direct from piston rod crossheads.  
 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  
 How are the pipes carried through the bunkers Suction to forward How are they protected wood cased.  
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes in Engine room.  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes  
 Were stern tube, propeller, screw shaft, and all connections examined in dry dock Yes How How Launched 4<sup>th</sup> Sept 1890  
 Is the screw shaft tunnel watertight - and fitted with a sluice door - worked from -

## BOILERS, &c.—

No. of Boilers One Description Cylindrical Multitubular Material Steel Letter (for record) S  
 Working Pressure 160 lb Tested by hydraulic pressure to 320 lb Date of test 19<sup>th</sup> August 1890  
 Description of superheating apparatus or steam chest None fitted  
 Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately -  
 Square feet of fire grate surface in each boiler 25.29 sq ft Description of safety valves Spring loaded No. to each boiler Two  
 Area of each valve 3.98 sq in Are they fitted with easing gear Yes No. of safety valves to superheater - area of each valve -  
 Are they fitted with easing gear - Smallest distance between boilers and bunkers or woodwork 9" Diameter of boilers 9.9"  
 Description of riveting of shell long. seams all strap 3rd circum. seams all on lap Thickness of shell plates 14/16"  
 Diameter of rivet holes 15/16" whether punched or drilled drilled pitch of rivets 5 1/16" Lap of plating 1 1/4"  
 Percentage of strength of longitudinal joint 89.5% working pressure of shell by rules 162 lb size of manholes in shell 16" x 12"  
 Diameter of compensating rings 6" x 14/16" No. of Furnaces in each boiler Two Description of Furnaces Holmes Patent  
 Diameter 35" length 6' 0" thickness of plates 10/16" description of joint bedded if rings are fitted Yes  
 Working length between rings 18" working pressure of furnace by the rules 160 lb combustion chamber plating, thickness, sides 9/16" back 9/16" top 9/16"  
 Diameter of stays to ditto, sides 7 1/4" back 7 1/8" top 7 1/4" If stays are fitted with nuts or riveted heads Yes working pressure of plating by  
184 lb Diameter of stays at smallest part 1 1/4" working pressure of ditto by rules 187 lb end plates in steam space, thickness 15/16"  
 Diameter of stays to ditto 1 1/2" how stays are secured Secured with flat double ends working pressure by rules 171 lb diameter of stays at  
 smallest part 2.34" working pressure by rules 184 lb Front plates at bottom, thickness 12/16" Back plates, thickness 12/16"  
 Diameter of stays, front 12/16" back 13/16" how stayed Stayed pitch of stays 9 1/2" width of water spaces 10"  
 Diameter of Superheater or Steam chest \_\_\_\_\_ length \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of longitudinal joint \_\_\_\_\_ diam. of rivet holes \_\_\_\_\_  
 Diameter of rivets \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_ diameter of flue \_\_\_\_\_ thickness of plates \_\_\_\_\_ If stiffened with rings \_\_\_\_\_  
 Diameter between rings \_\_\_\_\_ working pressure by rules \_\_\_\_\_ end plates of superheater, or steam chest; thickness \_\_\_\_\_ how stayed \_\_\_\_\_  
 Superheater or steam chest; how connected to boiler \_\_\_\_\_

HUL403-0056



DONKEY BOILER— Description *None fitted*

Made at \_\_\_\_\_ by whom made \_\_\_\_\_ when made \_\_\_\_\_ where fixed \_\_\_\_\_  
Working pressure \_\_\_\_\_ tested by hydraulic pressure to \_\_\_\_\_ No. of Certificate \_\_\_\_\_ fire grate area \_\_\_\_\_ description of safety  
valves \_\_\_\_\_ No. of safety valves \_\_\_\_\_ area of each \_\_\_\_\_ if fitted with easing gear \_\_\_\_\_ if steam from main boilers can  
enter the donkey boiler \_\_\_\_\_ diameter of donkey boiler \_\_\_\_\_ length \_\_\_\_\_ description of riveting \_\_\_\_\_  
Thickness of shell plates \_\_\_\_\_ diameter of rivet holes \_\_\_\_\_ whether punched or drilled \_\_\_\_\_ pitch of rivets \_\_\_\_\_ lap of pl  
per centage of strength of joint \_\_\_\_\_ thickness of crown plates \_\_\_\_\_ stayed by \_\_\_\_\_  
Diameter of furnace, top \_\_\_\_\_ bottom \_\_\_\_\_ length of furnace \_\_\_\_\_ thickness of plates \_\_\_\_\_ description of joint \_\_\_\_\_  
Thickness of furnace crown plates \_\_\_\_\_ stayed by \_\_\_\_\_ working pressure of shell by rules \_\_\_\_\_  
Working pressure of furnace by rules \_\_\_\_\_ diameter of uptake \_\_\_\_\_ thickness of plates \_\_\_\_\_ thickness of water to \_\_\_\_\_

SPARE GEAR. State the articles supplied:— *Two top end bolts Two bottom end bolts Two main  
bearing bolts. One set coupling bolts One set side bridge pump valve Check  
valve Safety valve spring Eccentric sheave Propeller shaft Propeller  
The vessel equipped with masts and sails as a trawler*

The foregoing is a correct description,

*Charles N. Holmes* Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *Workmanship Good*)

*The Machinery and Boiler of this Steam  
Trawler have been constructed under special survey and  
placed onboard in accordance with the Society's Rules. They  
are now in my opinion in safe working condition and the  
case is respectfully submitted for the notification + L.M.C.  
10.90. in the Register Book.*

*It is submitted that this vessel  
is eligible to have + L.M.C. 10.90  
recorded. NA  
8-10-90*

Machinery Certificate  
Written.

The amount of Entry Fee . . . £ 1 : - : ✓ received by me,

Special . . . £ 0 : - : ✓

Donkey Boiler Fee . . . £ ✓ : - : ✓

Certificate (if required) *Yes* ✓ : - : ✓ 7/10/1890

To be sent as per margin.

Travelling Expenses, if any, £ ( ) ✓

Committee's Minute

FRI 10 OCT 1890

+ L.M.C. 10/90

*Henry S. Tilston*

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



Lloyd's Register  
Foundation