

# REPORT ON MACHINERY.

40786

No. \_\_\_\_\_ (Received at London Office 12-9-1881)  
 No. in Survey held at London Date, first Survey 5 May Last Survey 10<sup>th</sup> Sept 1881  
 Reg. Book. \_\_\_\_\_  
 on the Wood Screw Tug "James Searle" Tons \_\_\_\_\_  
 Master \_\_\_\_\_ Built at Poplar When built 1881  
 Engines made at Kauahall By whom made A. Wilson & Co when made 1881  
 Boilers made at Millwall By whom made J. Hodge & Sons when made 1881  
 Registered Horse Power 40 nom. Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_

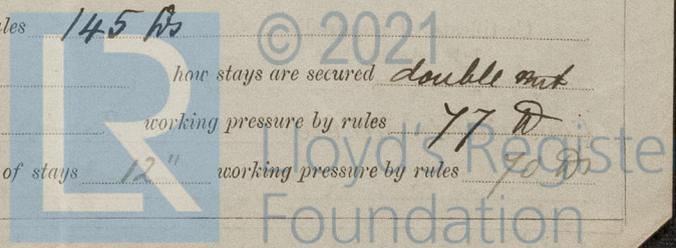
## ENGINES, &c.—

Description of Engines Inverted directacting compound surface condensing.  
 Diameter of Cylinders 15" & 27" Length of Stroke 18" No. of Rev. per minute 115 Point of Cut off, High Pressure .7 Low Pressure .7  
 Diameter of Screw shaft 4 3/4" Diameter of Tunnel shaft 4 3/4" Diameter of Crank shaft journals 5" Diameter of Crank pin 5" size of Crank webs 6x3 1/2"  
 Diameter of screw 6' 0" Pitch of screw 10' 6" No. of blades 3 state whether moveable no total surface 92 sq ft.  
 No. of Feed pumps one diameter of ditto 2" Stroke 9" Can it be overhauled while the other is at work yes  
 No. of Bilge pumps one diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work yes  
 Where do they pump from Engine room bilge.  
 No. of Donkey Engines one Size of Pumps 2 1/2" diam 6' Stroke Where do they pump from Sea & Bilge.  
 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 yes  
 No. of bilge injections one and sizes 2" <sup>fit</sup> Are they connected to condenser, or to circulating pump Circulating pump  
 How are the pumps worked Lever from LP Crosshead to Circulating Pump & from HP Crosshead to air feed & bilge pumps  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks valves for suction, cocks for blow off  
 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 accessible at all times yes  
 Are 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 On ship when new.  
 Is the screw shaft tunnel watertight \_\_\_\_\_ and fitted with a sluice door \_\_\_\_\_ worked from \_\_\_\_\_

## BOILERS, &c.—

Number of Boilers one Description Cylindrical return multitubular  
 Working Pressure 70 lbs Tested by hydraulic pressure to 140 lbs. Date of test 16.8.81  
 Description of superheating apparatus or steam chest Steam Dome  
 Can each boiler be worked separately \_\_\_\_\_ Can the superheater be shut off and the boiler worked separately \_\_\_\_\_  
 No. of square feet of fire grate surface in each boiler 27 ft Description of safety valves Roberts spring  
 No. to each boiler two area of each valve 7 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" to bunkers  
 Diameter of boilers 103 1/2" Length of boilers 9' 0" description of riveting of shell long. seams Double Riv butt circum. seams Single Riv lap.  
 Thickness of shell plates 5/8" diameter of rivet holes 13/16" whether punched or drilled punched pitch of rivets 2 1/8"  
 Lap of plating \_\_\_\_\_ per centage of strength of longitudinal joint 71 1/2% working pressure of shell by rules 78 lbs.  
 Size of manholes in shell 15" diam size of compensating rings neckpiece to Dome  
 No. of Furnaces in each boiler two outside diameter 30 7/8" length, top 6' 0" bottom 8' 0"  
 Thickness of plates 13/32 & 7/16" description of joint Butt if rings are fitted no greatest length between rings \_\_\_\_\_  
 Working pressure of furnace by the rules 80 lbs & 70 lbs.  
 Combustion chamber plating, thickness, sides 7/16" back 7/16" top 7/16"  
 Pitch of stays to ditto \_\_\_\_\_ sides 8" back 8" top 8"  
 If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 85 lbs.  
 Diameter of stays at smallest part 1 3/8" working pressure of ditto by rules 145 lbs  
 End plates in steam space, thickness 5/8" pitch of stays to ditto 14" how stays are secured double nut  
 Working pressure by rules 72 lbs. diameter of stays at smallest part 1 3/4" working pressure by rules 77 lbs  
 Front plates at bottom, thickness 5/8" Back plates, thickness 5/8" greatest pitch of stays 12" working pressure by rules 70 lbs

Form No. 8-3/10/80 2000.



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Diameter of tubes 3" pitch of tubes 3 1/2 & 4" thickness of tube plates, front 5/8" back 5/8"  
 How stayed Stay Tubes pitch of stays 12" width of water spaces 9"  
 Diameter of Superheater or Steam chest 36" length 3' 6"  
 Thickness of plates 3/8" description of longitudinal joint lap diameter of rivet holes \_\_\_\_\_ pitch of rivets \_\_\_\_\_  
 Working pressure of shell by rules ample Diameter of flue — thickness of plates —  
 If stiffened with rings — distance between rings — Working pressure by rules —  
 End plates of superheater, or steam chest; thickness 1/2" How stayed stayed  
 Superheater or steam chest; how connected to boiler flanged neck piece

DONKEY BOILER—

Description none

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 plating \_\_\_\_\_ 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 tubes \_\_\_\_\_

The foregoing is a correct description,  
Alex Wilsdale Manufacturer.

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

The material and workmanship are good. The machinery & boiler have been tried under steam & the safety valve set to the working pressure of 70 lbs per sq inch. The engines are fitted with Jays patent slide valve gear. In my opinion the machinery is eligible to have the notification Lloyds M. Cg. 81 recorded in the Register Book.

*His submitted that this vessel is eligible to have the notification Lloyds M.C. recorded*  
*M 12/9/81*

The amount of Entry Fee £ 1 : : : received by me,  
 Special .. .. £ 8 : 8 : }  
 Certificate (if required) .. £ Gratis 14/9/81 }  
 To be sent as per margin.  
 (Travelling Expenses, if any, £ \_\_\_\_\_)

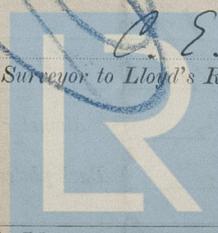
Committee's Minute

Tuesday, September, 13th 18 81.

W. Lloyd

*W. Lloyd*  
*12/9/81*

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



Lloyd's Register  
 Foundation