

# REPORT ON MACHINERY.

No. 56413

Port of *London*

Received at London Office *15/4/95*

No. in Survey held at *London* Date, first Survey *Febry 1895* Last Survey *5<sup>th</sup> April 1895*

Reg. Book. *275* on the *Iron Screw Ketch "Elsy"* (Number of Visits *12*)

Master *E. Wales* Built at *Hull* By whom built *E. Wales* Tons <sup>Gross</sup> *116* <sub>Net</sub> *65*

Engines made at *Hull* By whom made *E. Wales* when made *1883*

Boilers made at *London* By whom made *S. Hodge & Sons* when made *1895*

Registered Horse Power *20* Owners *J. E. Crisp* Port belonging to *Lowestoft*

Nom. Horse Power as per Section 28 *21.3* *90A1* *11.94* *5.5 sps N<sup>o</sup> 2-92* *LMC-9.92* *NB-9.92*

**ENGINES, &c.—** Description of Engines *Original Engines* No. of Cylinders *Two*

Diameter of Cylinders *11" & 22"* Length of Stroke *15"* Revolutions per minute \_\_\_\_\_ Diameter of Screw shaft *as per rule*

Diameter of Tunnel shaft *as per rule* Diameter of Crank shaft journals \_\_\_\_\_ Diameter of Crank pin \_\_\_\_\_ Size of Crank webs *as fitted*

Diameter of screw \_\_\_\_\_ Pitch of screw \_\_\_\_\_ No. of blades \_\_\_\_\_ State whether moveable \_\_\_\_\_ Total surface \_\_\_\_\_

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 \_\_\_\_\_

In Engine Room \_\_\_\_\_ In Holds, &c. \_\_\_\_\_

No. of bilge injections \_\_\_\_\_ sizes \_\_\_\_\_ Connected to condenser, or to circulating pump \_\_\_\_\_ Is a separate donkey suction fitted in Engine room & size \_\_\_\_\_

Are 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 \_\_\_\_\_

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

Are 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 \_\_\_\_\_

Are 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 \_\_\_\_\_

What pipes are carried through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_

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

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock \_\_\_\_\_ Is the screw shaft tunnel watertight \_\_\_\_\_

Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

**BOILERS, &c.—** (Letter for record *S*) Total Heating Surface of Boilers *358 sq ft*

No. and Description of Boilers *One Cylindrical Multitubular* Working Pressure *90 lbs.* Tested by hydraulic pressure to *180 lbs.*

Date of test *8.3.95* Can each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler *20 sq ft* No. and Description of safety valves to each boiler *Two Spring* Area of each valve *6.5 sq in* Pressure to which they are adjusted *83 lbs.* Are they fitted with easing gear *yes* Smallest distance between boilers or uptakes and bunkers *8"* Mean diameter of boilers *8'-0"*

Length *7'-2"* Material of shell plates *Steel* Thickness *1/2"* Description of riveting: circum. seams *Lap. & Riv* long. seams *S. Butt. & Riv*

Diameter of rivet holes in long. seams *13/16"* Pitch of rivets *3 3/16"* Lap of plates or width of butt straps *8 1/2"*

Per centages of strength of longitudinal joint rivets *94.0* Working pressure of shell by rules *94.3 lbs* Size of manhole in shell *16" x 12"* plate *75.47*

Size of compensating ring *3 1/2" x 3/4"* No. and Description of Furnaces in each boiler *Two, Plain* Material *Steel* Outside diameter *30"*

Length of plain part <sup>top</sup> *4'-6"* <sup>bottom</sup> *4'-11"* Thickness of plates <sup>circum</sup> *13/32"* <sup>bottom</sup> *13/32"* Description of longitudinal joint *S. Butt. Sing Riv* No. of strengthening rings *none*

Working pressure of furnace by the rules *108* Combustion chamber plates: Material *Steel* Thickness: Sides *7/16"* Back *7/16"* Top *7/16"* Bottom *7/16"*

Pitch of stays to ditto: Sides *7 3/4" x 7"* Back *7 3/4" x 7 3/4"* Top *7" x 7"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *96 lbs*

Material of stays *Steel* Diameter of smallest part *1"* Area supported by each stay *60 sq in* Working pressure by rules *101 lbs* End plates in steam space: Material *Steel* Thickness *5/8"* Pitch of stays *16" x 12"* How are stays secured *S. nuts* Working pressure by rules *134 lbs* Material of stays *Steel*

Diameter at smallest part *1 3/4"* Area supported by each stay *208 sq in* Working pressure by rules *99 lbs* Material of Front plates at bottom *Steel*

Thickness *5/8"* Material of Lower back plate *Steel* Thickness *5/8"* Greatest pitch of stays *12"* Working pressure of plate by rules *93 lbs*

Diameter of tubes *3"* Pitch of tubes *4"* Material of tube plates *Steel* Thickness: Front *5/8"* Back *5/8"* Mean pitch of stays *12"*

Pitch across wide water spaces *12"* Working pressures by rules *97 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *4" x two 3/4"* length as per rule *12"* Distance apart *7"* Number and pitch of Stays in each *Two 7"*

Working pressure by rules *114 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

[L.R. Form No. 3, 1900, Form No. 3, 1900]

L700-506N07



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**DONKEY BOILER**— Description

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 \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ If fitted with casing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_

Diameter of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_

Description of riveting long. seams \_\_\_\_\_ Diameter of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_

Lap of plating \_\_\_\_\_ Per centage of strength of joint \_\_\_\_\_ Rivets \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_ Radius of do. \_\_\_\_\_ No. of Stays to do \_\_\_\_\_

Dia. of stays. \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_ Thickness of furnace 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 uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,  
Manufacturer.

**General Remarks** (State quality of workmanship, opinions as to class, &c. *This boiler has been built in special survey the material and workmanship are sound and good, on completion the boiler was tested by hydraulic pressure to 180 lbs and found light & sound at that pressure; the boiler has now been satisfactorily mounted, placed and secured on board and tested under steam, and renders the vessel eligible in my opinion to have the notation of NB-4.95 (in red) and boiler pressure entered at 80 lbs in the Register Book*

*See heret list*

*A Aux Main Boiler has now been fitted*

*It is submitted that this vessel is eligible for THE RECORD + NB 4.95 - B 34.95*

*APR 22.4.95* The vessel's name to be removed from the Limit List for Main Boilers.

*APR 23.4.95*

Certificate (if required) to be sent to \_\_\_\_\_

|                                |   |   |    |                   |
|--------------------------------|---|---|----|-------------------|
| The amount of Entry Fee..      | £ | : | :  | When applied for, |
| Special .. .. .                | £ | 2 | 15 | 22.4.95           |
| Donkey Boiler Fee .. .. .      | £ | 2 | 15 | 18                |
| Travelling Expenses (if any) £ | ✓ | : | :  | When received,    |
|                                |   |   |    | 22.4.95           |

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

Committee's Minute

TUES 23 APR 1895

Assigned

*+ NB 4.95*  
*BS. 4.95*



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The Surveyors are requested not to write on or below the space for Committee's Minute.