

REPORT ON MACHINERY.

8046

No. 8046 Port of Hull
 No. in Survey held at Berkeley & Hull Date, first Survey Mar. 11th Last Survey Nov. 9th 1891
 Reg. Books. 171 on the Iron Steam Trawler "Argate" (Number of Visits 29)
 Master _____ Built at Berkeley By whom built Cochrane Cooper & Schofield When built 1891
 Engines made at Hull By whom made Amos Smith when made 1891
 Boilers made at Hull By whom made Amos Smith when made 1891
 Registered Horse Power 43 Owners Kingston Steam Trawling Co. Port belonging to Hull

ENGINES, &c.—
 Description of Engines Compound Inverted Direct Acting No. of Cylinders Two
 Diam. of Cylinders 16.7 32 Length of Stroke 22 Rev. per minute 104 Point of Cut off, High Pressure .6 Low Pressure .6
 Diameter of Screw shaft 6 1/2 Diam. of Tunnel shaft 6 1/4 Diam. of Crank shaft journals 6 1/2 Diam. of Crank pin 6 1/2 size of Crank webs 9 1/2 x 4 1/2
 Diameter of screw 7.9 Pitch of screw 11.6 No. of blades 4 state whether moveable - total surface 1929 sq
 No. of Feed pumps One diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work ✓
 No. of Bilge pumps One diameter of ditto 2 1/2 Stroke 12 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 2 1/4 x 4 Duplex Where do they pump from Bilge Hold. Sea & Hotwell Discharges to Boiler, Condenser, Deck & Overboard. Also 3" Ejector with suction in the engine room bilge and discharge in 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 3 Are they connected to condenser, or to circulating pump Circulating Pump.
 How are the pumps worked By rocking lever from forward engine piston rod crosshead.
 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 Suction to forward How are they protected truss casing.
 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock How new Launched 6th Oct 1891.
 Is the screw shaft tunnel watertight ✓ and fitted with a sluice door - worked from -

OILERS, &c.—
 No. of Boilers One Description Cylindrical Small Material Steel Letter (for record) S
 Working Pressure 110 lb Tested by hydraulic pressure to 220 lb Date of test 15th October 1891.
 Description of superheating apparatus or steam chest None fitted
 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 30.53 sq Description of safety valves Spring loaded No. to each boiler Two
 Area of each valve 7.068 sq 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 6 Diameter of boilers 10.9
 Length of boilers 9.6 description of riveting of shell long. seams all chain all circum. seams all in lap Thickness of shell plates 23/32
 Diameter of rivet holes 29/32 whether punched or drilled drilled pitch of rivets 4 7/8 Lap of plating 9/4
 Percentage of strength of longitudinal joint 81.4 % working pressure of shell by rules 113 lb size of manholes in shell 16 x 12
 Size of compensating rings 6 x 23/32 No. of Furnaces in each boiler Two Description of Furnaces Plain
 Outside diameter 44 length 6.4 between plates thickness of plates 9/16 description of joint beaded if rings are fitted Yes
 Greatest length between rings ✓ working pressure of furnace by the rules 123 lb combustion chamber plating, thickness, sides 1/2 back 1/2 top 1/2
 Pitch of stays to ditto, sides 8 back 8 top 8 If stays are fitted with nuts or riveted heads Yes working pressure of plating by rules 120 lb Diameter of stays at smallest part .988 area working pressure of ditto by rules 123 lb end plates in steam space, thickness 14/16
 Pitch of stays to ditto 15 how stays are secured all ends working pressure by rules 123 lb diameter of stays at smallest part 3.03 area working pressure by rules 121 lb Front plates at bottom, thickness 10/16 Back plates, thickness 10/16
 Greatest pitch of stays 19 1/2 working pressure by rules 110 lb Diameter of tubes 3 1/2 pitch of tubes 4 7/8 thickness of tube plates, front 10/16 back 11/16 how stayed stay tubes pitch of stays 9 3/4 width of water spaces 10
 Diameter of Superheater or Steam chest _____ length _____ thickness of plates _____ description of longitudinal joint _____ diam. of rivet holes _____
 Pitch of rivets _____ working pressure of shell by rules _____ 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 _____ how stayed _____
 Superheater or steam chest; how connected to boiler _____



DONKEY BOILER— Description *No donkey boiler*

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 _____

SPARE GEAR. State the articles supplied:— *Two top end bolts. Two bottom end bolts. Two main bearing bolts. One set coupling bolts. One set feed pump valves. One set Bilge pump valves. Safety valve spring*

The vessel efficient with masts and sails as a trawler

The foregoing is a correct description,
 Manufacturer. *Amos Smith*

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 on board 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 ratification + L.M.C. 11.91. in the Register Book.

It is submitted that this vessel is eligible for the record + L.M.C. 11.91. @ R.L.F. 17.11.91.

Certificate (if required) to be sent to *The Surveyors, Hull*

The amount of Entry Fee .. £ *1* : - : - received by me,
 Special .. £ *8* : - : -
 Donkey Boiler Fee .. £ *1* : - : -

11/18 91 *2.12.91*

(Travelling Expenses, if any, £ _____) _____ Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **TUES. 17 NOV 1891**
+ L.M.C. 11.91

