

REPORT ON MACHINERY.

8049

Port of Shull Received at London Office 18 NOV 91
 Survey held at Shull Date, first Survey Apr 22nd Last Survey Nov. 7 1891
 (Number of Visits 23)
 on the Shon Steam Trawler Britannia Tons { Gross 138
 Net 58
 Built at Shull By whom built Earle & Co Lim When built 1891
 made at Shull By whom made Earle & Co Lim when made 1891
 made at Shull By whom made Earle & Co Lim when made 1891
 rated Horse Power 44 Owners James Meadows & Co Lim Port belonging to Glimsby

ENGINES, &c.—

Kind of Engines Simple Compound Inverted Direct Acting No. of Cylinders Three
 I.P. 66
 of Cylinders 12" 18" & 30" Length of Stroke 18" Rev. per minute 135 Point of Cut off, High Pressure .63 Low Pressure .675
 Diameter of Screw shaft 5 3/8" Diam. of Tunnel shaft 5 1/6" Diam. of Crank shaft journals 5 1/4" Diam. of Crank pin 5 1/4" size of Crank webs 6 x 3 1/2"
 Diameter of screw 4.6" Pitch of screw 9.3" No. of blades 4 state whether moveable No total surface 22.29 sq ft
 Feed pumps One diameter of ditto 2" Stroke 10" Can one be overhauled while the other is at work -
 Bilge pumps One diameter of ditto 3" Stroke 10" Can one be overhauled while the other is at work -
 do they pump from Engine Room Bilge. Hold & Sea.
 Donkey Engines One Size of Pumps 3' x 6' Where do they pump from Bilge, Hold, Sea & Hotwell
Changes to Boiler, Condenser, Deck & Overboard. Also 3" Ejector with suction in the
Engine Room Bilge and Discharge on Deck.
 Are the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible -
 Are bilge injections One and sizes 3 3/4" Are they connected to condenser, or to circulating pump Circulating Pump
 Are the pumps worked By rocking levers from intermediate 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
 Are pipes carried through the bunkers Suction to forward How are they protected board case
 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 Now new Launched 7th October 1891
 Is the screw shaft tunnel watertight Yes and fitted with a sluice door - worked from -

BOILERS, &c.—

Boilers One Description Cylindrical Invert Material Steel Letter (for record) S
 Working Pressure 150 lb Tested by hydraulic pressure to 300 lb Date of test 10th Sept 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 -
 Square feet of fire grate surface in each boiler 269 sq ft Description of safety valves Spring loaded No. to each boiler two
 Diameter of each valve 3.14" 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 8" Diameter of boilers 9.6"
 Height of boilers 9.3' description of riveting of shell long. seams all steep all circum. seams all in lap Thickness of shell plates 13/16"
 Diameter of rivet holes 1 3/16" whether punched or drilled drilled pitch of rivets 6 5/8" Lap of plating 12 3/4"
 Percentage of strength of longitudinal joint 82.06 % working pressure of shell by rules 155 lb size of manholes in shell 16" x 12"
 Diameter of compensating rings 28" x 26" x 13/16" No. of Furnaces in each boiler two Description of Furnaces Plain
 Diameter of rings 33" length 6.6' between plates thickness of plates 10/16" description of joint welded if rings are fitted -
 Shortest length between rings - working pressure of furnace by the rules 164 lb combustion chamber plating, thickness, sides 9/16" back 9/16" top 9/16"
 Diameter 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 151 lb
 Diameter of stays at smallest part 1 3/4" working pressure of ditto by rules 185 lb end plates in steam space, thickness 16/16"
 Diameter of stays to ditto 15" how stays are secured all nuts working pressure by rules 159 lb diameter of stays at smallest part 2 1/4"
 working pressure by rules 199 lb Front plates at bottom, thickness 12/16" Back plates, thickness 10/16"
 Shortest pitch of stays 8" working pressure by rules 150 lb Diameter of tubes 3 1/4" pitch of tubes 4 1/2" thickness of tube plates, front 13/16" back 13/16" how stayed lay tubes pitch of stays 9" 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
 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 or 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 valve. One set Bilge pump valve. Safety valve spring.*

The vessel efficient with masts and sails as a hauler

The foregoing is a correct description,
Manufacturer.

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

The Machinery and Boiler of this Steam Hauler have been constructed under Special Survey and placed on-board in accordance with the Societies Rules. They are now in my opinion in safe working condition and the case is respectfully submitted for the notification + L.M.C. 11.91. in the Register Book.

Machinery Certificate
written.

It is submitted that this vessel is eligible for the record + L.M.C. 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 £ ✓ : - : -

PAH/1/91
5/1/91

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

Committee's Minute

FRI 20 NOV 1891

+ L.M.C. 11.91



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Foundation