

REPORT ON MACHINERY.

5060
1912/186
Report recd 28/10/88 sent to him 14/12/86

No. 18490 Received at London Office FRIDAY 19 FEB 1885
 No. in Survey held at Newcastle & Liverpool Date, first Survey 18th April Last Survey 26th Octr 1885
 Reg. Book. on the screw tug "Pioneer" (wood) (Number of Flats 17) Tons 47
 Master L. Liddler Built at Leith By whom built Marr Brothers When built 1885
 Engines made at North Shields By whom made J. O. Spence when made 1885
 Boilers made at Manchester By whom made James Blake when made 1885
 Registered Horse Power 18 Owners Pioneer Fishing Society Ltd. Port belonging to A. Shields
12 Rudyard St. N. Shields

ENGINES, &c.—

Description of Engines Compound screw
 Diameter of Cylinders 10 1/2 & 20 Length of Stroke 14 No. of Rev. per minute 100 Point of Cut off, High Pressure 1/5 Low Pressure 1/6
 Diameter of Screw shaft 4 Diam. of Tunnel shaft 4 Diam. of Crank shaft journals 4 Diam. of Crank pin 4 size of Crank webs 5 x 2 1/2
 Diameter of screw 5.9 Pitch of screw 8.3 No. of blades 3 state whether moveable no total surface —
 No. of Feed pumps one diameter of ditto 2 Stroke 7 Can one be overhauled while the other is at work —
 No. of Bilge pumps one diameter of ditto 2 Stroke 7 Can one be overhauled while the other is at work —
 Where do they pump from bilge (1)
 No. of Donkey Engines one Size of Pumps 2 5/8 x 5 Where do they pump from from bilge (1) & sea into boiler, on deck & scowboard.
 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 — and sizes — Are they connected to condenser, or to circulating pump —
 How are the pumps worked by lever over condenser from after engine
 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 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 new
 Is the screw shaft tunnel watertight none and fitted with a sluice door — worked from —

BOILERS, &c.—

Number of Boilers one Description Vertical (Walsley Patent) Whether Steel or Iron Steel
 Working Pressure 80 lbs Tested by hydraulic pressure to 160 lbs Date of test July 16th 85
 Description of superheating apparatus or steam chest —
 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 9.62 Description of safety valves spring No. to each boiler one
 Area of each valve 12.56 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 7" Diameter of boilers 6' 0"
 Length of boilers 10' 0" description of riveting of shell long. seams J. Riv Lap. circum. seams J. Riv Lap. Thickness of shell plates 3/16"
 Diameter of rivet holes 13/16" whether punched or drilled drilled pitch of rivets 2 3/4" Lap of plating 4"
 Per centage of strength of longitudinal joint 70% working pressure of shell by rules 91 lbs size of manholes in shell 15" x 12"
 Size of compensating rings Steel Riv 6" x 1/2" No. of Furnaces in each boiler one
 Outside diameter 3' 9" length, top 3' 9" bottom — thickness of plates 3/16" description of joint J. Riv Lap. if rings are fitted —
 Greatest length between rings — working pressure of furnace by the rules 80 lbs combustion chamber plating, thickness, sides 3/16" back 3/16" top 1/2"
 Pitch of stays to ditto, sides 8 1/2" back 8 1/2" top — If stays are fitted with nuts or riveted heads Nuts working pressure of plating by rules 80 lbs Diameter of stays at smallest part 1 1/8" working pressure of ditto by rules 80 lbs end plates in steam space, thickness 3/16"
 Pitch of stays to ditto Spherical how stays are secured — working pressure by rules — diameter of stays at smallest part — working pressure by rules — Front plates at bottom, thickness — Back plates, thickness —
 Greatest pitch of stays — working pressure by rules — Diameter of tubes 3" pitch of tubes 14" thickness of tube plates, front 3/4" back 3/8" how stayed Tubes pitch of stays 12" x 12" width of water spaces 1"
 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 —

LTH557-0055

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 _____ 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:—

The foregoing is a correct description,
J. Spence Manufacturer of engines

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

The boiler of this vessel has been surveyed during construction the material and workmanship are of good description and in conformity with the rules.

The engines have been built under special survey, the materials and workmanship are sound & satisfactory eligible in our opinion to be classed ∇ & L M C-10-85 in the Register Book.

It is submitted that this vessel is eligible to have the notification + sub 10-85 recorded.

22/2/86

WLS

The amount of Entry Fee *inc.* £ 1 : - : - received by me,
 Liverpool fee £ 2 : 2 : 0
 Special £ 5 : 18 : 0
 Donkey Boiler Fee £ - : - : -
 * Certificate (if required) .. £ : 16th Febry 1886

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

Committee's Minute TUESDAY 23 FEB 1886

* Note sent to Newcastle Office

