REPORT ON MACHINERY.

7516

WED 29 OCT 1890

Port of Hull

No. 7516

Received at London Office 18

No. in Reg. Book. Survey held at Hull Date, first Survey July 11th Last Survey Oct 10 1890

(Number of Visits 17)

S/w Scp on the Iron Steam Trawler "Achilles" Tons Gross 147.93 Net 53.46

Master Cotteral Built at Hull By whom built Earles Co Lim When built 1890

Engines made at Hull By whom made Earles Co Lim when made 1890

Boilers made at Hull By whom made Earles Co Lim when made 1890

Registered Horse Power 50 Owners R Blades & H Rippon Port belonging to Hull

ENGINES, &c.—

Description of Engines Triple Compound Inverted Direct acting No. of Cylinders Three

Diam. of Cylinders 12¾" 20" & 32" Length of Stroke 30 Rev. per minute 140 Point of Cut off, High Pressure .62 I.P. 65 Low Pressure .68

Diameter of Screw shaft 5⅞ Diam. of Tunnel shaft 5⅞ Diam. of Crank shaft journals 5⅞ Diam. of Crank pin 6" size of Crank webs 7" × 4½"

Diameter of screw 7:9" Pitch of screw 8:6" No. of blades 4 state whether moveable Yes total surface 22 sq ft

No. of Feed pumps One diameter of ditto 2" Stroke 10" Can one be overhauled while the other is at work —

No. of Bilge pumps One diameter of ditto 3" Stroke 10 Can one be overhauled while the other is at work —

Where do they pump from Bilge, Hold, Clushwell & Sea.

No. of Donkey Engines One Size of Pumps 3" × 6" Where do they pump from Bilge, Hold, Clushwell, Ballast tank, Sea & Hotwell. Ejector with suction in Engine Bilge & discharge on 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 from intermediate Piston rod, rocking levers.

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 Wood cased

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 Now New Launched 20th Sept 1890

Is the screw shaft tunnel watertight — and fitted with a sluice door — worked from —

BOILERS, &c.—

No. of Boilers One Description Cylindrical Mult Material Steel Letter (for record) S

Working Pressure 150 lbs Tested by hydraulic pressure to 300 lbs Date of test 25 Sept 1890

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 28 sq ft Description of safety valves Spring loaded No. to each boiler two

Diam. of each valve 3.14D" 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" Diameter of boilers 10:0"

Length of boilers 9:6" description of riveting of shell long. seams double strap double circum. seams double in lap Thickness of shell plates

Diameter of rivet holes 1 3/16 whether punched or drilled drilled pitch of rivets 6½" Lap of plating 12¾"

Percentage of strength of longitudinal joint 81.43% working pressure of shell by rules 150 lbs size of manholes in shell 16" × 12"

No. of compensating rings 2.4" × 2:2" × 27/32" No. of Furnaces in each boiler two Description of Furnaces Holmes Patent

Outside diameter 39½" length 6:4" thickness of plates 10/16" description of joint welded if rings are fitted Yes

Greatest length between rings 18" working pressure of furnace by the rules 150 lbs combustion chamber plating, thickness, sides 9/16" back 9/16" top 9/16"

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 152 lbs Diameter of stays at smallest part 1⅜" working pressure of ditto by rules 185 lbs end plates in steam space, thickness 16/16"

Pitch of stays to ditto 15" how stays are secured double nuts working pressure by rules 159 lbs diameter of stays at smallest part 2¼" working pressure by rules 140 lbs Front plates at bottom, thickness 10/16" Back plates, thickness 10/16"

Greatest pitch of stays 8" working pressure by rules 150 lbs Diameter of tubes 3¼" pitch of tubes 4½" thickness of tube plates, front 12/16" back 12/16" how stayed Stay 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

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

HUL403-109

DONKEY BOILER.— Description None fitted

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 Rod & One set Bilge pump Va-

The Vessel present with Mast and Sails as a Trawler.

The foregoing is a correct description,

SHIPBUILDING & ENGINEERING CO. LIMITED

Manufacturer.

J H Mann

ASST. GENERAL MANAGER

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

The Machinery and Boiler of This Steam Trawler has been constructed under special Survey and placed on board in accordance with The Societys Rules, They are now in my opinion in safe working condition and The case is respectfully submitted for The Notification + L M C 10. 90. in the Register Book.

It is submitted that this Vessel is eligible to have + L.M.C. 10 90 recorded

N.A.

29-10-90

Machinery Certificate
Written

The amount of Entry Fee .. £ 1 : : received ~~by me,~~

Special .. .. .. £ 8 : : 9 0 1

Donkey Boiler Fee .. .. £ — : : 2

Certificate (if required) .. £ — : : 3/11/1890

To be sent as per margin.

(*Travelling Expenses, if any,* £ ____)

James Inglis

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

Committee's Minute FRI 31 OCT 1890

+ Lmc 10/90

R. E. TAYLOR & SON, STEAM PRINTERS, 19 OLD STREET, GOSWELL ROAD, LONDON, E.C.