

REPORT ON MACHINERY.

Port of Hull

Received at London Office **FRI. APL 26 1907**

No. in Survey held at Selby & Hull Date, first Survey Nov 23/06 Last Survey April 8th 1907
 Reg. Book. 25 Supp. on the Screw Trawler "Washington" (Number of Visits 21)
 Master Selby Built at Selby By whom built Lochranne Lons When built 1907
 Engines made at Hull By whom made Charles D. Holmes & Co. when made 1907
 Boilers made at do By whom made do when made 1907
 Registered Horse Power 68.7 Owners Premier Sea Fishing Co. Ltd Port belonging to Gimstby
 Nom. Horse Power as per Section 28 68.7 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/4, 22, 35 Length of Stroke 24 Revs. per minute 112 Dia. of Screw shaft 7 1/2 Material of Iron
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight
 in the propeller boss yes If the liner is in more than one length are the joints burned yes If the liner does not fit tightly at the part
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two
 liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 36
 Dia. of Tunnel shaft 6 3/8 Dia. of Crank shaft journals 6.69 Dia. of Crank pin 7 Size of Crank webs 4 3/4 x 13 3/8 Dia. of thrust shaft under
 collars 7 Dia. of screw 8 7/2 Pitch of Screw 11-0 No. of Blades 4 State whether moveable No Total surface 27.5 sq. ft.
 No. of Feed pumps 1 Diameter of ditto 2 1/8 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 1 Diameter of ditto 2 1/8 Stroke 24 Can one be overhauled while the other is at work yes
 No. of Donkey Engines one Sizes of Pumps 2 3/4 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Two 2" dia. In Holds, &c. Two 2" dia.
Ejector suction from all bilges & discharge on deck.
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" Ejector
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible None
 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 Hold suction How are they protected Wood casing
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes
 Dates of examination of completion of fitting of Sea Connections 14.12.06 of Stern Tube 14.12.06 Screw shaft and Propeller 14.12.06
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—(Letter for record (5)) Manufacturers of Steel Stewart & Lloyd Ltd
 Total Heating Surface of Boilers 1110 sq. ft. Forced Draft fitted No No. and Description of Boilers One S.E. by L. Hull
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 18.3.07 No. of Certificate 1552
 Can each boiler be worked separately yes Area of fire grate in each boiler 35 sq. ft. No. and Description of Safety Valves to
 each boiler Two spring Area of each valve 3.9 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 6" Mean dia. of boilers 12-6" Length 10-0" Material of shell plates Steel
 Thickness 1 1/2" Range of tensile strength 29-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams BR Lap
 long. seams BR L.S. Rivet Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7" Lap of plates or width of butt straps 15"
 Per centages of strength of longitudinal joint rivets 86 Working pressure of shell by rules 185 lbs Size of manhole in shell 16 x 12"
 Size of compensating ring 7 x 1 1/2" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 3-7"
 Length of plain part top 5-10" bottom 5-3 1/2" Thickness of plates crown 4 1/2" bottom 6 1/2" Description of longitudinal joint Welded No. of strengthening rings yes
 Working pressure of furnace by the rules 185 Combustion chamber plates: Material Steel Thickness: Sides 2 3/32" Back 1 1/16" Top 2 3/32" Bottom 2 3/32"
 Pitch of stays to ditto: Sides 9 x 8 1/2" Back 9 x 8 1/2" Top 8 1/2 x 8 3/4" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 213 lbs
 Material of stays Steel Diameter at smallest part 1 3/4" Area supported by each stay 105 Working pressure by rules 204 End plates in steam space:
 Material Steel Thickness 1 3/32" Pitch of stays 17 1/2 x 17 1/2" How are stays secured on + w. Working pressure by rules 185 lbs Material of stays Steel
 Area 6.21 Diameter at smallest part 6.21 Area supported by each stay 306 Working pressure by rules 202 Material of Front plates at bottom Steel
 Thickness 7/8" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 15" Working pressure of plate by rules 198 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 3/4 x 4 5/8" Material of tube plates Steel Thickness: Front 7/8" Back 7/8" Mean pitch of stays 9 3/8"
 Pitch across wide water spaces 15" Working pressures by rules 180 lbs Girders to Chamber tops: Material Iron Depth and
 thickness of girder at centre 9 x 1 3/4" Length as per rule 2-8" Distance apart 8 3/4" Number and pitch of stays in each 3 @ 8 1/2"
 Working pressure by rules 193 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked
 separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet
 holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes
 If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

Is a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent?

VERTICAL DONKEY BOILER— Manufacturers of Steel

No. Description

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of Safety

Valves No. of Safety Valves Area of each Pressure to which they are adjusted Date of adjustment

If fitted with easing gear If steam from main boilers can enter the donkey boiler Dia. of donkey boiler Length

Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams

Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Rivets Plates

Working pressure of shell by rules 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

Working pressure of furnace by rules Thickness of furnace crown plates Stayed by

Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— *Two top & two bottom-end connecting rod bolts & nuts. Two main bearing bolts & nuts. One set of coupling bolts & nuts. One set of feed & bilge pump valves. Main & donkey feed check valves. assorted bolts & nuts &c*

The foregoing is a correct description,
Charles D. Holme Manufacturer.

Dates of Survey while building

During progress of work in shops— 1906:— Nov 23, Dec 3, 5, 6, 14, 17. 1907:— Jan 15, 30, Feb 5, 28, Mar 6, 12, 14, 15, 18, 20, 26.

During erection on board vessel — Mar 27, 28 Apr 5, 8.

Total No. of visits 21

Is the approved plan of main boiler forwarded herewith *yes*

" " " donkey " " " *yes*

Dates of Examination of principal parts—Cylinders 5.2.07 Slides 20.3.07 Covers 20.3.07 Pistons 20.3.07 Rods 12.3.07

Connecting rods 12.3.07 Crank shaft 14.3.07 Thrust shaft 14.3.07 Tunnel shafts ✓ Screw shaft 3.12.06 Propeller 3.12.06

Stern tube 23.11.06 Steam pipes tested 28.3.07 Engine and boiler seatings 14.12.06 Engines holding down bolts 26.3.07

Completion of pumping arrangements 5.4.07 Boilers fixed 27.3.07 Engines tried under steam 5.4.07

Main boiler safety valves adjusted 5.4.07 Thickness of adjusting washers *F 1/4" A 5/16"*

Material of Crank shaft *Iron* Identification Mark on Do. *304 J.K.* Material of Thrust shaft *Iron* Identification Mark on Do. *14.3.07*

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *304 J.K.*

Material of Steam Pipes *Solid drawn copper* Test pressure *360 lbs.*

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

The Engines and Boiler of this vessel have been constructed under Special Survey, are of good material and workmanship, and have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of + L.M.C. 4, 07 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD, *+ L.M.C. 4, 07.*

JHC 26/4/07.

J.H.
16.4.07

The amount of Entry Fee.. £ 1 : 0 : 0

Special £ 10 : 7 : 0

Donkey Boiler Fee £ - : - : -

Travelling Expenses (if any) £ - : 8 : 2

When applied for, 25/4/1907

When received, 30/4/1907

TUES. APR 30 1907

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

Committee's Minute

Assigned *Home 4.07*

MACHINERY CERTIFICATE WRITTEN.



Certificate (if required) to be sent to Hull

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