

REPORT ON MACHINERY.

No. 17243

Port of Hull

Received at London Office **FRI. 13 OCT 1905**

No. in Survey held at Hull Date, first Survey June 15th Last Survey Oct 3rd 1905
 Reg. Book. 455 on the Screw Trawler "Asia" (Number of Visits 17) Tons { Gross 309 Net 115
 Master Built at Hull By whom built Charles J. B. & Co. L^{td} When built 1905
 Engines made at Hull By whom made Charles J. B. & Co. L^{td} when made 1905
 Boilers made at do By whom made do when made 1905
 Registered Horse Power Owners Hull Steam Fishing & Ice Co. L^{td} Port belonging to Hull
 Nom. Horse Power as per Section 28 85 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 13, 22, 36" Length of Stroke 27" Revs. per minute 109 Dia. of Screw shaft 7.9" Material of screw shaft 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 ✓ 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 ✓
 If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 3'-2"
 Dia. of Tunnel shaft 7.5" Dia. of Crank shaft journals 7.35" Dia. of Crank pin 7.3" Size of Crank webs 5.8" Dia. of thrust shaft under collars 7.3" Dia. of screw 9'-9" Pitch of screw 11'-6" No. of blades 4 State whether moveable No Total surface 30 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 2.5" Stroke 18" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2.5" Stroke 18" Can one be overhauled while the other is at work yes
 No. of Donkey Engines one Sizes of Pumps 6x4.5x6" 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 engine bilge + hold + discharge on deck.
 No. of bilge injections 1 sizes 3.5" Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size 3" 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 ✓
 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launch the screw shaft tunnel watertight None
 Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record (S)) Total Heating Surface of Boilers 1420 sq. ft. Is forced draft fitted No
 No. and Description of Boilers One Cyl. Mult. S. E. Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs
 Date of test 14.9.05 Can each boiler be worked separately ✓ Area of fire grate in each boiler 47 sq. ft. No. and Description of safety valves to each boiler two direct spring Area of each valve 4.9" Pressure to which they are adjusted 205 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 6.5" Mean dia. of boilers 13'-0" Length 10'-6" Material of shell plates Steel
 Thickness 1.76" Range of tensile strength 28-32 Are they welded or flanged No Descrip. of riveting: cir. seams DR Lap long. seams 5.5 S. 5 Rivets
 Diameter of rivet holes in long. seams 1.76" Pitch of rivets 7.3" Lap of plates or width of butt straps 17.5"
 Per centages of strength of longitudinal joint rivets 89.7 Working pressure of shell by rules 201 lbs Size of manhole in shell 16" x 12"
 plate 84.6 No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 3'-1.5"
 Length of plain part top 6'-3" bottom 5'-11" Thickness of plates crown 4.9" bottom 6.4" Description of longitudinal joint Welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 206 lbs Combustion chamber plates: Material Steel Thickness: Sides 1.16" Back 1.16" Top 1.16" Bottom 1.16"
 Pitch of stays to ditto: Sides 8" x 7.5" Back 8" x 7.5" Top 8" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 255 lbs
 Material of stays Steel Diameter at smallest part 1.5" Area supported by each stay 60" Working pressure by rules 235 lbs End plates in steam space: Material Steel Thickness 1.8" Pitch of stays 17" x 16" How are stays secured Nuts + screwed into plates Working pressure by rules 208 lbs Material of stays Steel
 Diameter at smallest part 3" Area supported by each stay 272" Working pressure by rules 297 lbs Material of Front plates at bottom Steel
 Thickness 1.5/16" Material of Lower back plate Steel Thickness 1.5/16" Greatest pitch of stays 17" x 12" Working pressure of plate by rules 275 lbs
 Diameter of tubes 3.5" Pitch of tubes 4.2" x 4.5" Material of tube plates Steel Thickness: Front 1.5/16" Back 1.5/16" Mean pitch of stays 9.3" x 9.5"
 Pitch across wide water spaces 13.5" Working pressures by rules 202 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10" x 1.5" Length as per rule 3'-0" Distance apart 8" Number and pitch of Stays in each 3 @ 8"
 Working pressure by rules 214 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked separately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓
 If stiffened with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓
 Working pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

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

DONKEY BOILER— No. _____ 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 _____ Pressure to which they are adjusted _____ 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 _____ 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 _____ Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
 Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

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 etc.*

The foregoing is a correct description,

SHIPBUILDING & ENGINEERING CO., LIMITED.

F. J. Palethorpe Manufacturer.

Dates of Survey while building
 During progress of work in shops - - - - -
 During erection on board vessel - - - - -
 Total No. of visits

SECRETARY 1905:— *Jun 15. 28 July 3. 6. 28 Aug 16. 17. 22. 23. 29 Sep 5. 12. 14*
Sep 20. 22. 27 Oct 3
 17

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

" " " donkey " " " ✓

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 +LMC 10.05 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

+LMC

10-05

JSM
13/10/05

W.S.
13.10.05

Certificate (if required) to be sent to Hull

The amount of Entry Fee.. £ 1 : : : When applied for,
 Special £ 12 : 15 : } 9/10/05
 Donkey Boiler Fee £ - : - : }
 Travelling Expenses (if any) £ - : - : } 20/10/05

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

Committee's Minute TUES. 17 OCT 1905

Assigned +Lmb 1005



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