

## REPORT ON MACHINERY.

No. 17243

Port of HullReceived at London Office FRI. 13 OCT 1905

No. in Survey held at Hull Date, first Survey June 15<sup>th</sup> Last Survey Oct 3<sup>rd</sup> 1905  
 Reg. Book. 455 on the Screw Trawler "Asia" (Number of Visits 17) Tons { Gross 309  
 Net 115  
 Master Charles S. B. & Co. Ltd. Built at Hull By whom built Charles S. B. & Co. Ltd. When built 1905  
 Engines made at Hull By whom made Charles S. B. & Co. Ltd. when made 1905  
 Boilers made at do By whom made do when made 1905  
 Registered Horse Power 85 Owners Hull Steam Fishing & Ice Co. Ltd. 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 7.5" Dia. of Crank pin 7.5" Size of Crank webs 58" Dia. of thrust shaft under  
 collars 7.5" 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 1/4 x 6" 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 1/2" Connected to condenser, or to circulating pump yes 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 1/2" Mean dia. of boilers 13'-0" Length 10'-6" Material of shell plates Steel  
 Thickness 1 1/16" Range of tensile strength 28-32 Are they welded or flanged No Descrip. of riveting: cir. seams DR Lap long. seams DR S. 5 Rivets  
 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 3/4" Lap of plates or width of butt straps 17 1/2"  
 Per centages of strength of longitudinal joint 89.7 Working pressure of shell by rules 201 lbs Size of manhole in shell 16" x 12"  
 Size of compensating ring 3'-4" x 2'-6" x 1 1/2" No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 3'-1 1/2"  
 Length of plain part 6'-3" Thickness of plates 1 1/16" 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 1/16" Back 1 1/16" Top 1 1/16" Bottom 1 1/16"  
 Pitch of stays to ditto: Sides 8" x 7 1/2" Back 8" x 7 1/2" 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 1/2" Area supported by each stay 60" Working pressure by rules 235 lbs End plates in steam space:  
 Material Steel Thickness 1 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 257 lbs Material of Front plates at bottom Steel  
 Thickness 15/16" Material of Lower back plate Steel Thickness 15/16" Greatest pitch of stays 17" x 12" Working pressure of plate by rules 275 lbs  
 Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" x 4 5/8" Material of tube plates Steel Thickness: Front 15/16" Back 15/16" Mean pitch of stays 9 3/4" x 9 3/4"  
 Pitch across wide water spaces 13 3/4" Working pressures by rules 202 lbs Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 10" x 1 3/4" 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 ✓



## 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.

Manufacturer.

L. J. Palethorpe

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

13/10/05

13.10.05

The amount of Entry Fee..

£

1 : : :

When applied for,

Special

£

12 : 15 : :

9/10/1905

Donkey Boiler Fee

£

: : : :

When received,

Travelling Expenses (if any)

£

: : : :

20/10/05

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

Committee's Minute

TUES. 17 OCT 1905

Assigned

+LMC 1005



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Lloyd's Register  
Foundation