

REPORT ON MACHINERY.

Received at London Office

WED. 7 SEP 1910

Date of writing Report 2-9-1910 When handed in at Local Office 2-9-1910. Port of Hull.
 No. in Survey held at Hull. Date, First Survey Feb. 8th Last Survey Sep. 2nd 1910.
 Reg. Book. 4 Supp. on the Trawler. PERICLES (Number of Visits 47) Tons { Gross 208
 Net 82
 Master Beverley Built at Beverley By whom built Hook, Welton & Gemmell When built 1910.
 Engines made at Hull. By whom made Amos & Smith Ltd. when made 1910
 Boilers made at 5 By whom made 5 when made 5
 Registered Horse Power 45 Owners Hellyer Steam Fishing Co. Ltd. Port belonging to Hull.
 Nom. Horse Power as per Section 28 45 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 10-16 1/2-27 Length of Stroke 24 Revs. per minute 104 Dia. of Screw shaft 7 1/8 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 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 2' 8"
 Dia. of Tunnel shaft 5.7 Dia. of Crank shaft journals 5.98 Dia. of Crank pin 6 1/2 Size of Crank webs 2 3/8 x 4 1/8 Dia. of thrust shaft under collars 6 1/2 Dia. of screw 10.0 Pitch of Screw 8.6 No. of Blades 4 State whether moveable No Total surface 38 sq. ft.
 No. of Feed pumps 1 Diameter of ditto 2 1/2 Stroke 11 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 1 Diameter of ditto 2 1/2 Stroke 11 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines Two Sizes of Pumps 6x3x6-5x5x5 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 2-2 (Fore & Aft) In Holds, &c. 1-2 Main hold 1-2 Ballast tank
 Separate system suction to after ballast tank. Yes System suction to all bilges with discharge direct
 No. of Bilge Injections 1 sizes 2 1/2 Connected to condenser, or to circulating pump Condenser Is a separate Donkey Suction fitted in Engine room & size 2 1/2
 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 & Ballast 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 25.6.10 of Stern Tube 25.6.10 Screw shaft and Propeller 25.6.10
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door Yes worked from —

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Phoenix & Hoerde
 Total Heating Surface of Boilers 750 sq. ft. Is Forced Draft fitted No No. and Description of Boilers 1 S.E. Multitubular
 Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 2.7.10 No. of Certificate 1754
 Can each boiler be worked separately Yes Area of fire grate in each boiler 25.5 sq. ft. No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 3.14 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" Mean dia. of boilers 10.7 Length 9.3 3/8 Material of shell plates Steel
 Thickness 3/32 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams SA Lap long. seams 2BS5 with Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7.59 Lap of plates or width of butt straps 16 1/2
 Per centages of strength of longitudinal joint rivets 101 Working pressure of shell by rules 201 Size of manhole in shell 16 x 12 plate 85.17
 Size of compensating ring 40 x 30 x 3/2 No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 2' 11 1/2"
 Length of plain part top 6.7 Thickness of plates crown 3/4 Description of longitudinal joint Welded No. of strengthening rings bottom 6.2 bottom 3/4
 Working pressure of furnace by the rules 228. Combustion chamber plates: Material Steel Thickness: Sides 3/8 Back 1/2 Top 1/2 Bottom 3/8
 Pitch of stays to ditto: Sides 8 1/2 x 8 1/2 Back 8 1/2 x 8 Top 8 1/2 x 7 3/8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 239
 Material of stays Steel Diameter at smallest part 1 1/2 Area supported by each stay 74.3 Working pressure by rules 249 End plates in steam space: Material Steel Thickness 1/2 Pitch of stays 13 1/2 x 12 1/2 How are stays secured SA Washers Working pressure by rules 246 Material of stays Steel
 Diameter at smallest part 2 1/2 Area supported by each stay 169 Working pressure by rules 252 Material of Front plates at bottom Steel
 Thickness 1/2 Material of Lower back plate Steel Thickness 1/2 Greatest pitch of stays 14 x 8 Working pressure of plate by rules 234
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 1/2 Back 3/8 Mean pitch of stays 9 1/2 x 9
 Pitch across wide water spaces 13 1/2 Working pressures by rules 202. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/4 x 1 3/4 Length as per rule 2.6 3/8 Distance apart 7 3/8 Number and pitch of stays in each 2-8 1/2
 Working pressure by rules 246 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

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
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		Date of adjustment
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
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates
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 rods bolts nuts, two main bearing bolts, one set of coupling bolts & nuts, one set of feed & bilge pump valves, one main & one donkey feed check valve assorted bolts nuts etc.*

FOR AMOS & SMITH LTD.

The foregoing is a correct description,

Manufacturer.

W. J. Hide Managing Director.

Dates of Survey while building: During progress of work in shops— 1910 - Feb 8, 10, 16, 18, 24 Mar 3, 9, 17, 18, 23, 31. Apr 5, 8, 13, 16, 20, 22, 26, 30 May 4, 10, 14, 19, 25, 27. During erection on board vessel - Jun 2, 6, 9, 14, 17, 18, 21, 24, 25, 28 July 2, 15, 19, 25, 28 Aug 4, 10, 12, 16, 19, 23 Sep 2. Total No. of visits 47

Is the approved plan of main boiler forwarded herewith *RM 22848*

Dates of Examination of principal parts—Cylinders 10.5.10 Slides 21.6.10 Covers 28.5.10 Pistons 28.5.10 Rods 28.5.10 Connecting rods 28.5.10 Crank shaft 19.5.10 Thrust shaft 19.5.10 Tunnel shafts ✓ Screw shaft 19.5.10 Propeller 18.6.10 Stern tube 21.6.10 Steam pipes tested 16.8.10 Engine and boiler seatings 25.6.10 Engines holding down bolts 16.8.10 Completion of pumping arrangements 2.9.10 Boilers fixed 16.8.10 Engines tried under steam 19.8.10 Main boiler safety valves adjusted 19.8.10 Thickness of adjusting washers $5\frac{11}{32}$ P $\frac{3}{8}$ 668
Material of Crank shaft *Steel* Identification Mark on Do. *668* Material of Thrust shaft *Steel* Identification Mark on Do. *19.5.10*
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *668, 19.5.10*
Material of Steam Pipes *Solid drawn copper* ✓ Test pressure *400 lbs* ✓

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery & boiler of this vessel have been constructed under Special Survey, they are of good material & workmanship have been fitted & secured in accordance with the Rules. They are now in good order & eligible in my opinion to have record of + L. M. C. 9-10 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.10.

The amount of Entry Fee £ / : 0 : 0 When applied for, Special .. £ 8 : 0 : 6-9-1910 Donkey Boiler Fee .. £ : : : When received, Travelling Expenses (if any) £ : 2 : 0 30-9-1910

Committee's Minute

Assigned

FRI. 9 SEP 1910

Time 9.10

J. W. D. 7/9/10
J. W. Gwynne
Engineer, Surveyor to Lloyd's Register of British & Foreign Shipping.



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Lloyd's Register Foundation

These particulars
Signal Letters

Official Number
129283

No., Date, and Port
Whether British or Foreign Built.

British

Number of Decks
Number of Masts
Rigged ...
Stern ...
Build ...
Galleries ...
Head ...
Framework and vessel ...
Number of Bulkheads
Number of water tanks and their capacities

Total to quarter the depth to bottom of keel

No. of sets of Engines. Description of Vertical or other reciprocating or steam engines.

One

No. of Shafts. Particulars of Shafts. Description, Number, Iron or Steel, Loaded Pressure.

One

Gross Tonnage

Under Tonnage Deck
Space or spaces between Turret or Tank
Forecastle ...
Bridge space ...
Poop or Break
Side Houses ...
Deck Houses ...
Chart Houses ...
Spaces for machinery Section 78 (2) of the Act of 1894. ...
Excess of Hatchways

Gross Tonnage Deductions, as per Committee's Minute Registered

NOTE.—The only space reserved for the use of the machinery is the space reserved for the use of the machinery.

Name of Master

No. of Owners
Name, Residence, and Business of each

Hellyers & Co.
business is ...
manager.

Dated 6th

Null

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)