

REPORT ON MACHINERY.

No. 23897

Received at London Office WED. 5 JUL 1911

Date of writing Report June 29 1911 When handed in at Local Office June 30 1911 Port of Hull
 No. in Survey held at Hull Date, First Survey Nov. 15 1910 Last Survey June 26 1911
 Reg. Book. on the Trawler LACERTA (Number of Visits 54) Tons { Gross 270 Net 124
 Master Pilby Built at Pilby By whom built Bohannon & Sons When built 1911
 Engines made at Hull By whom made Amos & Smith Ltd. when made 5
 Boilers made at 5 By whom made 5 when made 8
 Registered Horse Power 71 Owners Lindsey Steam Fishing Co Port belonging to Grimby
 Nom. Horse Power as per Section 28 71 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Smooth triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/2 - 21 - 34 Length of Stroke 24 Revs. per minute 117 Dia. of Screw shaft as per rule 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 36
 Dia. of Tunnel shaft as per rule 6 3/4 Dia. of Crank shaft journals as per rule 6 1/2 Dia. of Crank pin 6 7/8 Size of Crank webs 3 3/4 x 4 1/2 Dia. of thrust shaft under collars 6 3/8 Dia. of screw 8.9 Pitch of Screw 10.9 No. of Blades 4 State whether moceable No Total surface 29 ft
 No. of Feed pumps one Diameter of ditto 2 5/8 Stroke 12 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps one Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines one Sizes of Pumps 6 x 3 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps 2 1/2
 In Engine Room 1-2 In Holds, &c. 3-2 (Free hold - shut wells)
2 1/2 Gyrin suction to all bilges with discharge on deck
 No. of Bilge Injections one sizes 3 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2 Gyrin
 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 Yes
 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 1.5.11 of Stern Tube 1.5.11 Screw shaft and Propeller 1.5.11
 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 Guardschaft, Gull, Funk's & Schack, Wulphelin
 Total Heating Surface of Boilers 1230 ft Is Forced Draft fitted No No. and Description of Boilers 1 S.E. Multitubular
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 12.5.11 No. of Certificate 1812
 Can each boiler be worked separately Yes Area of fire grate in each boiler 35 ft No. and Description of Safety Valves to each boiler 2 Spring loaded
 Area of each valve 3.91 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 2 1/2 Mean dia. of boilers 12.6 Length 10.2 Material of shell plates Steel
 Thickness 1 1/2 Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams SA Lap
 long. seams SA S Lap Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 7.63 Lap of plates or width of butt straps 16 1/2
 Per centages of strength of longitudinal joint rivets 94 Working pressure of shell by rules 185 Size of manhole in shell 16 x 12
 plate 85.2 Size of compensating ring 40 x 30 x 1 1/2 No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 3.752
 Length of plain part top 72 bottom 69 Thickness of plates crown 1 1/4 bottom 1 1/4 Description of longitudinal joint Welded No. of strengthening rings one
 Working pressure of furnace by the rules 181 Combustion chamber plates: Material Steel Thickness: Sides 1/8 Back 1/8 Top 5/8 Bottom 1/8
 Pitch of stays to ditto: Sides 9 1/2 x 7 Back 9 x 8 1/2 Top 8 1/2 x 7 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 207
 Material of stays Steel Diameter at smallest part 5/8 Area supported by each stay 78.75 Working pressure by rules 235 End plates in steam space: Material Steel Thickness 1 1/8 Pitch of stays 16 1/2 x 16 1/2 How are stays secured Washer Working pressure by rules 199 Material of stays Steel
 Diameter at smallest part 5.05 Area supported by each stay 268 Working pressure by rules 196 Material of Front plates at bottom Steel
 Thickness 3/8 Material of Lower back plate Steel Thickness 5/8 Greatest pitch of stays 14 x 8 1/2 Working pressure of plate by rules 222
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates Steel Thickness: Front 3/8 Back 3/8 Mean pitch of stays 9 1/2 x 9 1/2
 Pitch across wide water spaces 14 Working pressures by rules 182 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 8 1/2 x 1 1/2 Length as per rule 2.9 Distance apart 8 1/2 Number and pitch of stays in each 3 x 27
 Working pressure by rules 252 Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked separately Yes
 Diameter Length Thickness of shell plates Material Description of longitudinal joint 2020 Diam. of rivet holes 1 1/8 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

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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 _____

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 _____ Radius of do. _____ 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, one set of air pump valves, one main & one donkey feed chest valves, assorted bolts & nuts*

The foregoing is a correct description,

FOR AMOS & SMITH LTD.
W. S. Wade Managing Director

Dates of Survey while building: During progress of work in shops - - 1910: - Nov 15, 22, 24, 29 Dec 2, 8, 13, 17, 16, 20, 22. / 1911: - Jan 5, 10, 17, 21, 23, 25, 27

During erection on board vessel - - Feb 4, 6, 8, 9, 15, 17, 20, Mar 2, 8, 11, 13, 21, 24, 27, 29 Apr 4, 10, 11, 13, 24, 27, May 1, 2, 8, 11, 12, 14

May 25, 26, 29, Jun 10, 13, 15, 16, 20, 26.

Total No. of visits *54* Is the approved plan of main boiler forwarded herewith *Rpln 2387*

Dates of Examination of principal parts—Cylinders *4.4.11* Slides *11.5.11* Covers *4.4.11* Pistons *11.5.11* Rods *2.5.11*

Connecting rods *2.5.11* Crank shaft *19.5.11* Thrust shaft *19.5.11* Tunnel shafts _____ Screw shaft *13.3.11* Propeller *21.3.11*

Stern tube *13.3.11* Steam pipes tested *16.6.11* Engine and boiler seatings *1.5.11* Engines holding down bolts *15.6.11*

Completion of pumping arrangements *26.6.11* Boilers fixed *15.6.11* Engines tried under steam *20.6.11*

Main boiler safety valves adjusted *20.6.11* Thickness of adjusting washers *S¹/₄ P³/₄*

Material of Crank shaft *Steel* Identification Mark on Do. *693 19.5.11* Material of Thrust shaft *Steel* Identification Mark on Do. *693 19.5.11*

Material of Tunnel shafts _____ Identification Marks on Do. _____ Material of Screw shafts *Iron* Identification Marks on Do. *693 13.3.11*

Material of Steam Pipes *Solid drawn copper* Test pressure *360lb*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery & boiler of this vessel have been constructed under Special Survey, are of good material & workmanship, have been fully examined on board in accordance with the Rules. They are now in good working condition and are respectfully submitted as being eligible in my opinion to have record of 7-L.M.C. 6-11 in the Register Book.*

It is submitted that this vessel is eligible for **THE BROOD + L.M.C. 6. 11.**

ARSR J.W.D. 6/7/11

The amount of Entry Fee .. £	1	0	0	When applied for, .. £	28	0	11
Special .. £	10	13	0	When received, .. £	30	0	11
Donkey Boiler Fee .. £							
Travelling Expenses (if any) £	10	10					

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

Committee's Minute *FRI. 7 JUL 1911*

Assigned *+ L.M.C. 6. 11*



Certificate (if required) to be sent to

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