

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)

Master Pilby Built at Pilby By whom built Bochum & Sons Tons Gross 270
Net 124 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 ✓ 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 Two stroke 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 7 1/2 as per rule 7 1/2 Material of Iron
 as fitted 7 1/2 screw shaft

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 36

Dia. of Tunnel shaft 6 3/4 as per rule 6 3/4 Dia. of Crank shaft journals 6 1/2 as per rule 6 1/2 Dia. of Crank pin 6 3/4 Size of Crank webs 3 1/2 x 4 1/2 Dia. of thrust shaft under

collars 6 3/4 Dia. of screw 8 9/16 Pitch of Screw 10 9/16 No. of Blades 4 State whether moveable No Total surface 29 1/2

No. of Feed pumps one Diameter of ditto 2 5/8 Stroke 12 Can one be overhauled while the other is at work ✓

No. of Bilge pumps one Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work ✓

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

In Engine Room 1-2 In Holds, &c. 3-2 (Free hold - shut wells)

2 1/2 Guin suction to all bilges with discharge on deck

No. of Bilge Injections one sizes 3 Connected to condenser, or to circulating pump ✓ Is a separate Donkey Suction fitted in Engine room & size 2 1/2 Guin

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 ✓ worked from ✓

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Grundt'schaff, Gull, Funk's & Schack, Wuppertal

Total Heating Surface of Boilers 1230 1/2 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 ✓ Area of fire grate in each boiler 35 1/2 No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 3 1/2 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 1/2 Length 10 1/2 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 5 unit 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 94 Working pressure of shell by rules 185 Size of manhole in shell 16 x 12

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 3.75

Length of plain part 72 Thickness of plates 1 1/2 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 1/2 Back 1/2 Top 5/8 Bottom 1 1/2

Pitch of stays to ditto: Sides 9 1/2 x 7 Back 9 1/2 x 7 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 1/2 Pitch of stays 16 1/2 x 16 1/2 How are stays secured Washed 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 3/4 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 3/4 Back 3/4 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 9/16 Distance apart 8 1/2 Number and pitch of stays in each 3 2 7

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 ✓ 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 ✓

005552-005556-0154

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 _____ 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 & high 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.

Manufacturer. *W. S. White* 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, 12, 13, 24, 27, May 1, 2, 8, 11, 12, 14
Total No. of visits 54

Is the approved plan of main boiler forwarded herewith *R/L 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 *S-4 P 3/16*

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 *360 lb*

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 T.L.M.C. 6-11 in the Register Book.*

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

The amount of Entry Fee .. £ 1 : 0 : 0 When applied for, 28-0-11

Special .. £ 10 : 13 : 0

Donkey Boiler Fee .. £ : : : When received, 30-6-11

Travelling Expenses (if any) £ : 10 : 10

Committee's Minute

Assigned

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



Lloyd's Register Foundation

Certificate (if required) to be sent to

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