

REPORT ON MACHINERY.

Received at London Office THUR 11 JUN 1908

Date of writing Report 6.6.1908 When handed in at Local Office 6-6-1908 Port of Hull
 No. in Survey held at Hull. Date, First Survey Jan. 10th Last Survey May 27th 1908
 Reg. Book. 10 on the Trawler XERXES (Number of Visits 45) Tons { Gross 243 Net 96
 Master By whom built Bochmans & Sons When built 1908.
 Engines made at Hull. By whom made Geo. D. Holmes & Co. when made 5
 Boilers made at 5 By whom made 5 when made 5
 Registered Horse Power 80 Owners Nector Steam Trawling Co. Ltd. Port belonging to Swansea
 Nom. Horse Power as per Section 28 80 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Twin Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/2 - 21 1/2 x 35 Length of Stroke 26 Revs. per minute 112 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 36
 Dia. of Tunnel shaft 6 1/2 Dia. of Crank shaft journals 6 1/2 Dia. of Crank pin 7 1/8 Size of Crank webs 3 1/2 x 1 1/2 Dia. of thrust shaft under collars 7 1/8 Dia. of screw 9-0 Pitch of Screw 11-6 No. of Blades 4 State whether moveable No Total surface 33 1/2
 No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 26 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 26 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 1 Sizes of Pumps 2 3/4 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps 2-2
 In Engine Room 2-2 In Holds, &c. 2-2 Shut hull, Ballast Tank.
 No. of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump Yes 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 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 4.3.08 of Stern Tube 4.3.08 Screw shaft and Propeller 4.3.08
 Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door None worked from None

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Guthrie & Co. Ltd. Glasgow
 Total Heating Surface of Boilers 1415 Is Forced Draft fitted No. No. and Description of Boilers 1 S.E. 9 Muschler
 Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 12.5.08. No. of Certificate 1645
 Can each boiler be worked separately Yes Area of fire grate in each boiler 43 sq. ft. No. and Description of Safety Valves to each boiler 2 Spring loaded Area of each valve 4.9 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 5 Mean dia. of boilers 36 Length 10 1/2 Material of shell plates Steel
 Thickness 3/8 Range of tensile strength 29-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams SR. Lap
 long. seams SR. S. rivet Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 8 Lap of plates or width of butt straps 16 1/2
 Per centages of strength of longitudinal joint rivets 89 Working pressure of shell by rules 181 Size of manhole in shell 16 x 12
 plate 85.5 No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 37 1/2
 Length of plain part 7 1/2 Thickness of plates 3/8 Description of longitudinal joint Welded No. of strengthening rings 1
 Working pressure of furnace by the rules 190 Combustion chamber plates: Material Steel Thickness: Sides 3/8 Back 3/8 Top 3/8 Bottom 3/8
 Pitch of stays to ditto: Sides 9 x 9 1/2 Back 9 1/2 x 9 1/2 Top 9 1/2 x 9 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 197
 Material of stays Steel Diameter at smallest part 1 1/2 Area supported by each stay 90 Working pressure by rules 207 End plates in steam space: None
 Material Steel Thickness 1 1/2 Pitch of stays 14 1/2 x 9 How are stays secured With washers Working pressure by rules 193 Material of stays Steel
 Diameter at smallest part 7 1/2 Area supported by each stay 365 Working pressure by rules 212 Material of Front plates at bottom Steel
 Thickness 3/8 Material of Lower back plate Steel Thickness 5/8 Greatest pitch of stays 15 x 9 1/2 Working pressure of plate by rules 193
 Diameter of tubes 3 1/2 Pitch of tubes 4 1/2 Material of tube plates Steel Thickness: Front 7 Back 3/2 Mean pitch of stays 9 1/2
 Pitch across wide water spaces 14 Working pressures by rules 233 Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 10 1/2 x 1 1/2 Length as per rule 35 Distance apart 9 1/2 Number and pitch of stays in each 309
 Working pressure by rules 198 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 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?

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 _____ 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 with nuts, two main bearing bolts, one set of coupling bolts & nuts, one set of feed & high pump pulvers, air & oil pump valves, assorted bolts & nuts etc.*

The foregoing is a correct description,

PER PRO CHARLES D. HOLMES & Co. Manufacturer.
H. Allon

Dates of Survey while building: During progress of work in shops— 1908:— Jan 10, 14, 15, 18, 24, 28, Feb 9, 8, 12, 14, 18, 20, 26, 27, 29, Mar 3, 4, 5, 9, 12, 14, Mar 18, 26, 28, 30, 31, Apr 1, 6, 8, 10, 13, 16, 24, 28, May 1, 2, 6, 9, 11, 12, 16, 18, 20, 23, 27.
Total No. of visits 45

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

Dates of Examination of principal parts—Cylinders 30.3.08 Slides 1.4.08 Covers 14.3.08 Pistons 1.4.08 Rods 30.3.08
Connecting rods 30.3.08 Crank shaft 3.3.08 Thrust shaft 3.3.08 Tunnel shafts ✓ Screw shaft 27.2.08 Propeller 27.2.08
Stern tube 27.2.08 Steam pipes tested 18.5.08 Engine and boiler seatings 4.3.08 Engines holding down bolts 18.5.08
Completion of pumping arrangements 27.5.08 Boilers fixed 18.5.08 Engines tried under steam 20.5.08
Main boiler safety valves adjusted 20.5.08 Thickness of adjusting washers $F \frac{3}{8}$ $A \frac{3}{8}$
Material of Crank shaft *Iron* Identification Mark on Do. *410 J.W.G 8.4.08* Material of Thrust shaft *Iron* Identification Mark on Do. *410 J.W.G 8.4.08*
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *410 J.W.G 27.2.08*
Material of Steam Pipes *Solid drawn Copper* Test pressure *350 lbs*

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery of this vessel has been constructed under Special Survey, all of good material & workmanship & has been fitted & secured in accordance with the Rules. They are now in good working condition & eligible in my opinion to have record of L.M.C. 5-08 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 5.08.

J.L. 11-6-08
11.6.08

The amount of Entry Fee .. £ 1 : 00
Special .. £ 12 : 00
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : 16 4

When applied for, 9.6.08
When received, 30.6.08

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

Committee's Minute **FRI 12 JUN 1908**

Assigned *Holmes & Co.*

MACHINE WRITTEN



Certificate (if required) to be sent to