

REPORT ON MACHINERY.

No. 30207

Received at London Office

THU. OCT. 25 1917.

Survey Report 18-10-17 19 When handed in at Local Office 23-10-17 19 Port of Hull
 in Survey held at Hull Date, First Survey Oct 5/16 Last Survey 18-10-17 19
 g. Book. 7 on the steel screw tug "Pegasus" (Number of Vials 44)
 Tons { Gross 219
 Net 98
 When built 1917-10
 Built at Gool By whom built Gool & Blyth 6-2-11
 Engines made at Hull By whom made Chas. D. Holmes 16-2-11 when made 1917-10
 Silers made at Hull By whom made Chas. D. Holmes 16-2-11 when made 1917-10
 Registered Horse Power Owners Gurnsey & North Sea Tug Trawlers 6-2-11 Port belonging to Gurnsey
 m. Horse Power as per Section 28 76 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

GINES, &c.—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3
 a. of Cylinders 12 1/2 - 21 1/2 - 35 Length of Stroke 24 Revs. per minute as per rule 7 1/4 Material of iron
 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
 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
 ers are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 35 1/2
 ia. of Tunnel shaft as per rule 6 1/4 Dia. of Crank shaft journals as per rule 6 7/8 Dia. of Crank pin 7 Size of Crank webs 4 1/2 x 3 1/4 Dia. of thrust shaft under
 lars 7 1/2 Dia. of screw 8 - 7 1/2 Pitch of Screw 10 - 10 1/2 No. of Blades 4 State whether moveable no Total surface 29 sq ft
 o. of Feed pumps one Diameter of ditto 2 1/2 Stroke 14 1/2 Can one be overhauled while the other is at work yes
 o. of Bilge pumps one Diameter of ditto 2 1/2 Stroke 14 1/2 Can one be overhauled while the other is at work yes
 o. of Donkey Engines one 3 1/2 hp Sizes of Pumps 6 - 3 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Two 2" dia In Holds, &c. one 2" dia in each compartment
all suction also connected to engine
 o. of Bilge Injections one size 3 1/2 Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size 3" dia
 re 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
 re all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both
 re 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
 re 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
 That pipes are carried through the bunkers Forward section How are they protected strong casings
 re all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 re 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 19-4-17 of Stern Tube 18-4-17 Screw shaft and Propeller 19-4-17
 the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes

ILERS, &c.—(Letter for record S) Manufacturers of Steel Stewarts & Lloyd
 total Heating Surface of Boilers 1310 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 3-4-17 No. of Certificate 3201
 Can each boiler be worked separately yes Area of fire grate in each boiler 33 sq ft No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 3.97 sq ft Pressure to which they are adjusted 185 Are they fitted with easing gear yes
 smallest distance between boilers or uptakes and bunkers or woodwork 6" 1/2 Mean dia. of boilers 150" Length 10'-0" Material of shell plates steel
 Thickness 1 1/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 long. seams J.R.D.B. 1 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7 3/8" Lap of plates or width of butt straps 15"
 Per centages of strength of longitudinal joint 84.4 Working pressure of shell by rules 185.5 Size of manhole in shell 16" x 12"
 Size of compensating ring 7" x 1 1/16" No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 43"
 Length of plain part top 78" Thickness of plates bottom 7 1/16" Description of longitudinal joint welded No. of strengthening rings one 11"
 Working pressure of furnace by the rules 192 Combustion chamber plates: Material steel Thickness: Sides 3/4" Back 1 1/16" Top 1 1/16" Bottom 3/4"
 Pitch of stays to ditto: Sides 10" x 9" Back 9 1/2" x 7 1/2" Top 10" x 9" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 181
 Material of stays steel Diameter at smallest part 2 1/4" Area supported by each stay 110 sq in Working pressure by rules 196 End plates in steam space:
 Material steel Thickness 1 1/16" Pitch of stays 17" x 16" How are stays secured 8. 1/2 x 1/4 Working pressure by rules 196 Material of stays steel
 Diameter at smallest part 5.79 Area supported by each stay 272 sq in Working pressure by rules 221 Material of Front plates at bottom steel
 Thickness 3/4" Material of Lower back plate steel Thickness 29/32" Greatest pitch of stays 14 1/2" x 9 1/2" Working pressure of plate by rules 188
 Diameter of tubes 3 1/2" Pitch of tubes 5" x 5 1/2" Material of tube plates steel Thickness: Front 7/8" + 3/16" Back 7/8" Mean pitch of stays 11 1/4"
 Pitch across wide water spaces 15" Working pressures by rules 211 (max) Girders to Chamber tops: Material steel Depth and
 thickness of girder at centre 7 1/2" x 1 1/4" Length as per rule 30.4 Distance apart 9" Number and pitch of stays in each two 10"
 Working pressure by rules 201 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked
 separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet
 holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes
 If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

006067-006079-0179

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:—

Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air, feed & bilge pump valves, 6 piston studs & nuts, one main & one donkey chest valve, one set of escape valve springs, one safety valve spring & a quantity of bolts & nuts of various sizes.

The foregoing is a correct description,

for CHARLES D. HOLMES & CO. LTD.

Charles D. Holmes

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *1916: Oct 5, 18, Nov 21, Dec 19, 21, 29, 1917: Jan 25, Feb 19, 13, 16, 23, 28, Mar 5, 8, 14, 19, 23,*
{ During erection on board vessel -- } *26, 29, Apr 23, 11, 13, 16, 18, 19, 23, 24, 26, May 4, 8, 9, 12, 21, Jul 19, 25, Aug 8, 17, 20, 24, 25, Oct 18.*
Total No. of visits *44*

Is the approved plan of main boiler forwarded herewith? *yes*

" " " donkey " " " *yes*

Dates of Examination of principal parts—Cylinders *18-4-17* Slides *12-5-17* Covers *23-4-17* Pistons *9-6-17* Rods *4-5-17*

Connecting rods *23-4-17* Crank shaft *3-4-17* Thrust shaft *11-4-17* Tunnel shafts *✓* Screw shaft *28-3-17* Propeller *28-3-17*

Stern tube *27-3-17* Steam pipes tested *8-8-17* Engine and boiler seatings *19-4-17* Engines holding down bolts *17-8-17*

Completion of pumping arrangements *18-10-17* Boilers fixed *20-8-17* Engines tried under steam *18-10-17*

Main boiler safety valves adjusted *25-8-17* Thickness of adjusting washers *7 7/16" 32*

Material of Crank shaft *Iron* Identification Mark on Do. *1767 FLS* Material of Thrust shaft *Iron* Identification Mark on Do. *6698*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *1764*

Material of Steam Pipes *solid drawn copper* Test pressure *40 lbs*

Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be used over 150°F. *✓*

Have the requirements of Section 49 of the Rules been complied with? *✓*

Is this machinery duplicate of a previous case? *yes* If so, state name of vessel *Capricornus*

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery of this vessel has been constructed under special survey in accordance with the approved plans & the rules of this Society, the materials & workman are good. The Boiler & steam pipes have been tested as above & found sound & tight. The machinery has been properly fitted & secured on board the vessel & on completion tested under steam & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 190 lbs.

In my opinion the vessel is shipable for the next 12 M. 10-17

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 10-17.

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 11 : 8 :
Donkey Boiler Fee ... £
Travelling Expenses (if any) £ : 0 : 4 :

When applied for,

24/10/17

When received,

31.10.17

Committee's Minute *TUE OCT 30 1917*

Assigned *+ L.M.C. 10-17*

MACHINERY CERTIFICATE
WRITTEN.



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