

REPORT ON MACHINERY.

No. 15601

Port of *Shull*

Received at London *17 OCT 1903*

Survey held at *Bonduy & Shull*

Date, first Survey *Apr. 24*

Last Survey *Oct 13*

1903

(Number of Visits *27*)

The *Steel Steam Trawler*

Hercules

Tons { Gross *261*
Net *95*

Built at *Bonduy*

By whom built *Cock & Holman & Co*

When built *1903*

at *Shull*

By whom made *Char & Holman & Co*

when made *1903*

at *Shull*

By whom made *Char & Holman & Co*

when made *1903*

orse Power

Owners *Anglo Norwegian S S Co*

Port belonging to *Shull*

Power as per Section 28 *74*

Is Refrigerating Machinery fitted *No*

Is Electric Light fitted *No*

S, &c.—Description of Engines

Triple Compound

No. of Cylinders *Three*

No. of Cranks *Three*

Dimensions *18" 22" 36"*

Length of Stroke *24"*

Revs. per minute *100*

Dia. of Screw shaft

as per rule *7.5"*

Material of screw shaft *Steel*

shaft fitted with a continuous liner the whole length of the stern tube *No*

Is the after end of the liner made water tight

ller boss *No*

If the liner is in more than one length are the joints burned *No*

If the liner does not fit tightly at the part

bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *No*

If two

ted, is the shaft lapped or protected between the liners *No*

Length of stern bush *36"*

l shaft

as per rule *6.75"*

Dia. of Crank shaft journals

as per rule *7.12"*

Dia. of Crank pin *7.5"*

Size of Crank webs *14" x 4.75"*

Dia. of thrust shaft under

l shaft

as fitted *7"*

Dia. of screw *9.0"*

Pitch of screw *11.0"*

No. of blades *4*

State whether moveable *No*

Total surface *286 sq ft*

pumps *one*

Diameter of ditto *2.25"*

Stroke *14.5"*

Can one be overhauled while the other is at work *No*

pumps *one*

Diameter of ditto *2.25"*

Stroke *14.5"*

Can one be overhauled while the other is at work *No*

by Engines *one*

Sizes of Pumps *2.25" x 5"*

No. and size of Suctions connected to both Bilge and Donkey pumps

Room

Two 2'

In Holds, &c. *Two 2'*

for suction in Engine Bilge & hold and discharge on deck.

suctions *one*

sizes *2.25"*

Connected to condenser, or to circulating pump *Is a separate donkey suction fitted in Engine room & size 2"*

lge suction pipes fitted with roses *No*

Are the roses in Engine room always accessible *No*

Are the sluices on Engine room bulkheads always accessible *Yes*

suctions with the sea direct on the skin of the ship *No*

Are they Valves or Cocks *both*

Are the discharge pipes above or below the deep water line *above*

d sufficiently high on the ship's side to be seen without lifting the stokehold plates *No*

Are the discharge pipes above or below the deep water line *above*

Are the blow off cocks fitted with a spigot and brass covering plate *No*

fitted with a discharge valve always accessible on the plating of the vessel *No*

Are the blow off cocks fitted with a spigot and brass covering plate *No*

Are the blow off cocks fitted with a spigot and brass covering plate *No*

are carried through the bunkers *Suctions to Forward*

How are they protected *wood lined*

How are they protected *wood lined*

s, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times *No*

Are the suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *No*

Are the suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges *No*

stern tube, propeller, screw shaft, and all connections examined in dry dock *Yes*

Is the screw shaft tunnel watertight *Yes*

Is the screw shaft tunnel watertight *Yes*

with a watertight door *No*

worked from *No*

worked from *No*

S, &c.—

(Letter for record *S*)

Total Heating Surface of Boilers *1148 sq ft*

Is forced draft fitted *No*

Description of Boilers

One Cylindrical

Working Pressure *200 lb*

Tested by hydraulic pressure to *400 lb*

2/8/03

Can each boiler be worked separately *No*

Area of fire grate in each boiler *55 sq ft*

No. and Description of safety valves to *Two Spring*

Area of each valve *3.9 sq ft*

Pressure to which they are adjusted *185 lb*

Are they fitted with easing gear *No*

tance between boilers or uptakes and bunkers or woodwork *7"*

Mean dia. of boilers *12.3"*

Length *9.9"*

Material of shell plates *Steel*

Range of tensile strength *29,32*

Are they welded or flanged *No*

Descrip. of riveting: cir. seams *all on lap long*

seams *all shop*

rivet holes in long. seams *1.1"*

Pitch of rivets *7.14"*

Lap of plates or width of butt straps *15.12"*

Lap of plates or width of butt straps *15.12"*

s of strength of longitudinal joint

rivets *80%*

Working pressure of shell by rules *206 lb*

Size of manhole in shell *16" x 12"*

compensating ring *7" x 1.1"*

No. and Description of Furnaces in each boiler *Two Furnaces*

Material *Steel*

Outside diameter *42"*

plain part

top *9"*

Thickness of plates

bottom *10.16"*

Description of longitudinal joint *welded*

pressure of furnace by the rules *221 lb*

Combustion chamber plates: Material *Steel*

Thickness: Sides *2.3/32"*

Back *1.1/16"*

Top *2.3/32"*

ays to ditto: Sides *9"*

Back *9"*

Top *9"*

If stays are fitted with nuts or riveted heads *Yes*

Working pressure by rules *206 lb*

f stays *Steel*

Diameter at smallest part *1.578"*

Area supported by each stay *9.29"*

Working pressure by rules *230 lb*

End plates in steam space:

Thickness *1.1/16"*

Pitch of stays *16"*

How are stays secured *all nut*

Working pressure by rules *208 lb*

Material of stays *Steel*

at smallest part *2.3/4"*

Area supported by each stay *16.216"*

Working pressure by rules *247 lb*

Material of Front plates at bottom *Steel*

Material of Lower back plate *Steel*

Thickness *1.576"*

Greatest pitch of stays *14.3/4"*

Working pressure of plate by rules *200 lb*

of tubes *3.1/2"*

Pitch of tubes *4.578"*

Material of tube plates *Steel*

Thickness: Front *1.576"*

Back *2.9/32"*

Mean pitch of stays *9.1/4"*

cross wide water spaces *14.1/2"*

Working pressures by rules *200 lb*

Girders to Chamber tops: Material *Steel*

of girder at centre *8" x 1.3/4"*

Length as per rule *31"*

Distance apart *8"*

Number and pitch of Stays in each *Two 9"*

pressure by rules *200 lb*

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

l with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

W486-0017

Lloyd's Register Foundation

DONKEY BOILER—

No. Description *Same*
 Made at By whom made When made Where fixed
 Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety 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
 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 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
 Thickness of furnace crown plates Stayed by Working pressure of shell by rules
 Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— *The top and bottom. The bottom and top. The main bearing bolts. One set coupling bolts. One set feed pump valves. One set Bridge pump valves. One set Check valves. Safety valve opening.*
The vessel efficient with masts and sails as a trawler.

The foregoing is a correct description,

Charles D. Holmes Manufacturer.

Dates During progress of work in shops— 1903:— Apr. 24. May 5. 14. 25. Jun 4. 10. 18. 25. July 1. 7. 15. 28. Aug 6. 17. 19. 21. Sep 9. 14. 17
 of Survey During erection on board vessel— Sep. 23. 28. 30. Oct. 3. 7. 8. 9. 13.
 while building Total No. of s 27

Is the approved plan of main boiler forwarded herewith *✓*

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

Note

At the request of the Superintendent Engineer the safety valves have been adjusted to 185 lbs. There is no reason why the pressure should not be marked 200 lbs in the Register Book.

The Machinery and Boiler of this Steamer Trawler have been constructed under Special Survey and placed on board in accordance with the Society's Rules. They are now in my opinion in safe working condition and the case is respectfully submitted in the Notification. + LMC 10.03 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 10.03

Beck

17.10.03

The amount of Entry Fee. £ 1 : - : - :
 Special £ 11 : 2 : - :
 Donkey Boiler Fee £ - : - : - :
 Travelling Expenses (if any) £ - : - : - :
 When applied for, 14/10/1903 2.11.03
 When received, 31.10.03

James Jones
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

TUES. 20 OCT 1903

Assigned

+ LMC 10.03

MACHINERY CERTIFICATE
 WRITTEN.



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