

REPORT ON MACHINERY.

No. 19235

Port of *Hull*

Received at London Office **TUES. 30 JUL 1907**

No. in Survey held at *Beverley & Hull* Date, first Survey *Sep 25/06* Last Survey *July 13th 1907*
 g. Book. (Number of Visits *38*)

20 on the *Screw Trawler "Fraser"* Tons { Gross *310*
 Net *123*

ster Built at *Beverley* By whom built *Booth, Wilton & Gemmell* When built *1907*

gines made at *Hull* By whom made *Charles D. Holmes & Co* when made *1907*

ilery made at *do* By whom made *do* when made *1907*

gistered Horse Power Owners *Neptune S. F. Co. Ltd.* Port belonging to *Hull*

m. Horse Power as per Section 28 *85* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

GINES, &c.—Description of Engines *Triple* No. of Cylinders *3* No. of Cranks *3*

u. of Cylinders *13 1/2", 23", 37"* Length of Stroke *24"* Revs. per minute *112* Dia. of Screw shaft as per rule *7.6"* Material of screw shaft *Iron*
 as fitted *8"*

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

been the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *✓* If two

rs are fitted, is the shaft lapped or protected between the liners *✓* Length of stern bush *3'-0"*

u. of Tunnel shaft as per rule *6.9"* Dia. of Crank shaft journals as per rule *7.3"* Dia. of Crank pin *7 1/2"* Size of Crank webs *4 1/2" x 4 3/8"* Dia. of thrust shaft under

ars *7 1/2"* Dia. of screw *9'-0"* Pitch of Screw *11'-6"* No. of Blades *4* State whether moveable *No* Total surface *31 sq. ft.*

of Feed pumps *2* Diameter of ditto *2 1/4"* Stroke *14 1/4"* Can one be overhauled while the other is at work *yes*

of Bilge pumps *2* Diameter of ditto *2 1/4"* Stroke *14 1/4"* Can one be overhauled while the other is at work *yes*

of Donkey Engines *One* Sizes of Pumps *6" x 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. *Five 2" dia.*

Ejector suction from all bilges & discharge on deck.

of Bilge Injections *1* sizes *3"* Connected to condenser, or to circulating pump *✓* Is a separate Donkey Suction fitted in Engine room & size *2 1/2"* Ejector

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 *None*

all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *Both*

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*

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*

at pipes are carried through the bunkers *Hold suction* How are they protected *Wood casing*

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *yes*

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *yes*

tes of examination of completion of fitting of Sea Connections *30.5.07* of Stern Tube *30.5.07* Screw shaft and Propeller *30.5.07*

the Screw Shaft Tunnel watertight *None* Is it fitted with a watertight door *✓* worked from *✓*

MLERS, &c.—(Letter for record *(S)* Manufacturers of Steel *Steel Coy of Scotland*

al Heating Surface of Boilers *1415 sq. ft.* Forced Draft fitted *No* No. and Description of Boilers *One S.E. cyl. Mult.*

rking Pressure *200 lbs* Tested by hydraulic pressure to *400 lbs* Date of test *6.6.07* No. of Certificate *1566*

each boiler be worked separately *✓* Area of fire grate in each boiler *36 sq. ft.* No. and Description of Safety Valves to

boiler *Two spring* Area of each valve *3.9"* Pressure to which they are adjusted *200 lbs* Are they fitted with easing gear *yes*

allest distance between boilers or uptakes and bunkers or woodwork *6"* Mean dia. of boilers *13'-6"* Length *10'-6"* Material of shell plates *Steel*

ckness *1 1/8"* Range of tensile strength *29-32* Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *DR. lap*

. seams *5 rivets* Diameter of rivet holes in long. seams *1 1/16"* Pitch of rivets *7 1/16"* Lap of plates or width of butt straps *17 1/8"*

centages of strength of longitudinal joint rivets *85.5* Working pressure of shell by rules *206 lbs* Size of manhole in shell *16" x 12"*

of compensating ring *7" x 1 1/4"* No. and Description of Furnaces in each boiler *Two Holmes* Material *Steel* Outside diameter *3'-9"*

gth of plain part top *✓* Thickness of plates crown *3/4"* Description of longitudinal joint *Welded* No. of strengthening rings *✓*

rking pressure of furnace by the rules *210* Combustion chamber plates: Material *Steel* Thickness: Sides *2 3/32"* Back *2 3/32"* Top *2 3/32"* Bottom *2 3/32"*

h of stays to ditto: Sides *9" x 8 1/2"* Back *9" x 8 3/4"* Top *9 5/8" x 8 1/2"* stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *215 lbs*

aterial of stays *Steel* Diameter at smallest part *1 5/8"* Area supported by each stay *81.8"* Working pressure by rules *228* End plates in steam space:

aterial *Steel* Thickness *1 1/4"* Pitch of stays *19 1/4" x 19"* How are stays secured *on + w* Working pressure by rules *202 lbs* Material of stays *Steel*

ea meter at smallest part *8.76"* Area supported by each stay *365"* Working pressure by rules *240* Material of Front plates at bottom *Steel*

ckness *1 5/16"* Material of Lower back plate *Steel* Thickness *1 5/16"* Greatest pitch of stays *18"* Working pressure of plate by rules *200*

meter of tubes *3 1/4"* Pitch of tubes *4 3/8" x 4 3/4"* Material of tube plates *Steel* Thickness: Front *1 5/16"* Back *2 3/32"* Mean pitch of stays *9 3/4" x 9 1/2"*

h across wide water spaces *15 1/4"* Working pressures by rules *200 lbs* Girders to Chamber tops: Material *Steel* Depth and

ckness of girder at centre *10 1/2" x 1 3/4"* Length as per rule *2-11 1/16"* Distance apart *9 5/8"* Number and pitch of stays in each *32 x 8 1/2"*

rking pressure by rules *209 lbs* Superheater or Steam chest; how connected to boiler *None* Can the superheater be shut off and the boiler worked

rately *✓* Diameter *✓* Length *✓* Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet

✓ Pitch of rivets *✓* Working pressure of shell by rules *✓* Diameter of flue *✓* Material of flue plates *✓* Thickness *✓*

stiffened with rings *✓* Distance between rings *✓* Working pressure by rules *✓* End plates: Thickness *✓* How stayed *✓*

rking pressure of end plates *✓* Area of safety valves to superheater *✓* Are they fitted with easing gear *✓*

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
 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 - and connecting rod bolts + nuts. Two main bearing bolts + nuts. One set of coupling bolts + nuts. One set of feed + bilge pump valves. Main + donkey feed check valves. Assorted bolts + nuts &c.*

The foregoing is a correct description,

PER PRO CHARLES D. HOLMES & Co.

Manufacturer.

Dates of Survey while building
 During progress of work in shops - 1906 - Sep. 25. Oct. 3. 9. 24. 31. Nov. 7. 14. Dec. 5. 6. 17. 1907. Jan. 15. 22. 30. Feb. 28. Mar. 15. 16.
 During erection on board vessel - Mar. 20. 26. Apr. 10. 13. 24. 26. May 7. 9. 22. 30. Jun. 5. 6. 8. 15. 17. 18. 20. 26. 28. Jul. 1. 5. 13.
 Total No. of visits 38.

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

" " " donkey " " " *yes*

Dates of Examination of principal parts - Cylinders 9. 5. 07 Slides 5. 6. 07 Covers 5. 6. 07 Pistons 30. 5. 07 Rods 30. 5. 07
 Connecting rods 30. 5. 07 Crank shaft 30. 5. 07 Thrust shaft 30. 5. 07 Tunnel shafts *✓* Screw shaft 7. 5. 07 Propeller 7. 5. 07
 Stern tube 20. 3. 07 Steam pipes tested 26. 6. 07 Engine and boiler seatings 30. 5. 07 Engines holding down bolts 8. 6. 07
 Completion of pumping arrangements 1. 7. 07 Boilers fixed 15. 6. 07 Engines tried under steam 1. 7. 07
 Main boiler safety valves adjusted 5. 7. 07 Thickness of adjusting washers *F 3/8" A 3/8"*
 Material of Crank shaft *Iron* Identification Mark on Do. 30. 5. 07 Material of Thrust shaft *Iron* Identification Mark on Do. 30. 5. 07
 Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. 7. 5. 07
 Material of Steam Pipes *Solid drawn copper* Test pressure 400 lbs. *✓*

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

The Engines and Boiler of this vessel have been constructed under Special Survey, are of good material and workmanship, and have been fitted and secured on board in accordance with the Rules. They are now in good working condition and in my opinion eligible to have the notation of +LMC 7.07 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD

+LMC 7.07.

JPM
30/7/07

The amount of Entry Fee. £ 1 : . : . When applied for, 29/7/1907
 Special £ 12 : 15 : .
 Donkey Boiler Fee £ - : - : . When received, 30. 7. 07
 Travelling Expenses (if any) £ - : 2 : -

Committee's Minute

FRI. 2 AUG 1907

Assigned

+LMC 7.07

Engine Surveyor to Lloyd's Register of British & Foreign Shipping.

MACHINERY CERTIFICATE WRITTEN.



© 2020 Lloyd's Register Foundation