

REPORT ON MACHINERY.

No. 19758

Port of Hull

Received at London Office

FRI. 24 JAN 1908

No. in Survey held at Hull.

Date, first Survey Oct 31/08 Last Survey Jan 16 1908

Reg. Book.

33 Supp on the 5/ Trawler "PEKEN"

(Number of Visits 25)

Gross 228

Net 119

When built 1907-8.

Master Built at Selby.

By whom built Cochran & Sons

Engines made at Hull

By whom made Chas. S. Holmes & Co.

when made 1907-8.

Boilers made at S.

By whom made S.

when made S.

Registered Horse Power

Owners H. L. Taylor

Port belonging to Grimsby

Nom. Horse Power as per Section 28 66.

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted No.

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders 3.

No. of Cranks 3.

Dia. of Cylinders 12-21-34

Length of Stroke 24

Revs. per minute 112

Dia. of Screw shaft

as per rule 6.9

Material of Iron

as fitted 7.3

screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No.

Is the after end of the liner made water tight

in the propeller 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

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 2-7

Dia. of Tunnel shaft

as per rule 6.5

Dia. of Crank shaft journals

as per rule 6.5

Dia. of Crank pin 6.3

Size of Crank webs 13x13

Dia. of thrust shaft under

collars 6.3

Dia. of screw 8-6

Pitch of Screw 11-3-10-3

No. of Blades 4

State whether moveable No.

Total surface 27.5

No. of Feed pumps 1

Diameter of ditto 2 1/2

Stroke 24

Can one be overhauled while the other is at work

No. of Bilge pumps 1

Diameter of ditto 2 1/2

Stroke 24

Can one be overhauled while the other is at work

No. of Donkey Engines 1

Sizes of Pumps 2 1/2 x 5

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

In Engine Room 2-2' Ford & A.F.T.

In Holds, &c. 2-2' Fore hold & Main hold.

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No.

No. of Bilge Injections 1

sizes 2 1/2

Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine room & size 2 1/2

Are all the bilge suction pipes fitted with roses No.

Are the roses in Engine room always accessible No.

Are the sluices on Engine room bulkheads always accessible No.

Are all connections with the sea direct on the skin of the ship No.

Are they Valves or Cocks Both

Are they fixed 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 they each 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.

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 No.

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges No.

Dates of examination of completion of fitting of Sea Connections 4.12.07

of Stern Tube 4.12.07

Screw shaft and Propeller 4.12.07

Is the Screw Shaft Tunnel watertight No.

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record

Manufacturers of Steel

Messrs David Colville

Total Heating Surface of Boilers 9954

Is Forced Draft fitted No.

No. and Description of Boilers 1 S.T. Multitubular

Working Pressure 180 lbs.

Tested by hydraulic pressure to 360 lbs.

Date of test 3.1.08.

No. of Certificate 1624

Can each boiler be worked separately

Area of fire grate in each boiler 32 sq.

No. and Description of Safety Valves to

each boiler 2 Spring loaded

Area of each valve 3.97

Pressure to which they are adjusted 185 lbs.

Are they fitted with easing gear No.

Smallest distance between boilers or uptakes and bunkers or woodwork 5"

Ext

Mean dia. of boilers 12-0"

Length 10-0"

Material of shell plates Steel

Thickness 1"

Range of tensile strength 28-32

Are the shell plates welded or flanged No.

Descrip. of riveting: cir. seams S.H. Lap.

long. seams S.B.S. union

Diameter of rivet holes in long. seams 1 1/2"

Pitch of rivets 7"

Lap of plates or width of butt straps 15"

Per centages of strength of longitudinal joint

rivets 88.69

Working pressure of shell by rules 182

Size of manhole in shell 16x12

Size of compensating ring 7x1

No. and Description of Furnaces in each boiler 2 plain

Material Steel Outside diameter 3-6

Length of plain part

top 5-9 1/2

bottom 5-3 1/2

Thickness of plates

crown 7/16

bottom 5/16

Description of longitudinal joint welded

No. of strengthening rings

Working pressure of furnace by the rules 189

Combustion chamber plates: Material Steel

Thickness: Sides 3/32

Back 1/16

Top 23/32

Bottom 23/32

Working pressure by rules 220

Pitch of stays to ditto: Sides 9x9

Back 9x8 1/2

Top 8 1/2 x 8

If stays are fitted with nuts or riveted heads No.

Working pressure by rules 220

Material of stays Steel

Diameter at smallest part 1 1/2"

Area supported by each stay 81 sq.

Working pressure by rules 230

End plates in steam space:

Material Steel

Thickness 1 1/2"

Pitch of stays 16x16

How are stays secured With washers

Working pressure by rules 196

Material of stays Steel

Diameter at smallest part 5/8"

Area supported by each stay 256 sq.

Working pressure by rules 235

Material of Front plates at bottom Steel

Thickness 27/32

Material of Lower back plate Steel

Thickness 7/16

Greatest pitch of stays 15x9

Working pressure of plate by rules 198

Diameter of tubes 3 1/4"

Pitch of tubes 45x45

Material of tube plates Steel

Thickness: Front 27/32

Back 7/8

Mean pitch of stays 9 1/2"

Pitch across wide water spaces 15 1/2"

Working pressures by rules 180

Girders to Chamber tops: Material Iron

Depth and

thickness of girder at centre 8 1/2 x 1 1/2"

Length as per rule 2-8"

Distance apart 8"

Number and pitch of stays in each 328 1/2"

Working pressure by rules 196

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

007572-007589-0049

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, two main bearing bolts, one set of coupling bolts & nuts, one set of feed & high pump valves, one main & donkey feed check valve, assorted bolts & nuts etc.*

The foregoing is a correct description,
Charles D. Holmes Manufacturer.

Dates of Survey while building { During progress of work in shops— 1907: Oct. 31. Nov. 5. 8. 11. 13. 15. 18. 20. 26. 28. 29. Dec. 3. 4. 7. 11. 16. 17. 21. 1908: Jan. 2. 3. 9.
During erection on board vessel — Jan. 10. 11. 13. 16.
Total No. of visits 25

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

Dates of Examination of principal parts—Cylinders 7.12.07 Slides 2.1.08 Covers 7.12.07 Pistons 11.12.07 Rods 11.12.07
Connecting rods 7.12.07 Crank shaft 21.12.07 Thrust shaft 11.11.07 Tunnel shafts ✓ Screw shaft 29.11.07 Propeller 29.11.07
Stern tube 29.11.07 Steam pipes tested 10.1.08 Engine and boiler seatings 4.12.07 Engines holding down bolts 9.1.08.
Completion of pumping arrangements 16.1.08. Boilers fixed 11.1.08. Engines tried under steam 11.1.08.
Main boiler safety valves adjusted 11.1.08. Thickness of adjusting washers *4 5/16" F.H.*
Material of Crank shaft *Iron* Identification Mark on Do. *395.5.H.6 21.12.07* Material of Thrust shaft *Iron* Identification Mark on Do. *395.5.H.6 21.12.07*
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do. *395.5.H.6 29.11.07*
Material of Steam Pipes *Solid drawn Copper.* Test pressure *360 lbs.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery & boiler of this vessel have been examined under Special Survey, are of good material & workmanship, & have been found to be in accordance with the Rules. They are now in good working condition & eligible in my opinion to have the notation "L. M. C. 1-08" in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. *L. M. C. 1-08.*

S.H.C. 24.1.08

H.S. 24.1.08

The amount of Entry Fee. £ 1 : 0 : 0 When applied for. 23/11/08
Special £ 9 : 18 : 0
Donkey Boiler Fee £ - : - : - When received. 31.1.08
Travelling Expenses (if any) £ 11 : 6 : 2

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

Committee's Minute *TUES. 28 JAN 1908*
Assigned *+ Lmb 1.08*

MACHINERY CERTIFICATE WRITTEN.