

## REPORT ON MACHINERY.

No. 20,503

Port of Hull

Received at London WED. 9 SEP 1908

No. in Survey held at Hull Goole.

Date, first Survey Apr. 15<sup>th</sup> Last Survey 29<sup>th</sup> Aug 1908

Reg. Book.

Supp. on the Steel Sc. Kelch Ospray II

(Number of Visits 24)

Master

Built at

Goole

By whom built Goole S.B. &amp; Co. Ltd

Tons { Gross 275  
Net 106

When built 1908

Engines made at

By whom made

Messrs

when made 1908

Boilers made at

Hull

By whom made

Charles C. Ltd

when made 1908

Registered Horse Power

87

Owners Cygnets Steam Trawling Co. Ltd Port belonging to

Nom. Horse Power as per Section 28

86.8

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

ENGINES, &amp;c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 12 1/2 - 21 - 35

Length of Stroke 26

Revs. per minute 102

Dia. of Screw shaft as per rule 7.55

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 one length

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

liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush 40"

Dia. of Tunnel shaft as per rule 6.57

as fitted 6 1/2"

Dia. of Crank shaft journals as per rule 6.9

as fitted 7 1/8"

Dia. of Crank pin 7 1/8"

Size of Crank webs 13" x 4 1/2"

Dia. of thrust shaft under

collars 7 1/8"

Dia. of screw 9' - 6"

Pitch of Screw 11' 0" to 12' - 6"

No. of Blades 4

State whether moveable No

Total surface 32 sq

No. of Feed pumps 2

Diameter of ditto 2 1/2"

Stroke 12"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 2 1/2"

Stroke 12"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines one

Sizes of Pumps 5 1/4" x 3 1/2" x 5"

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

In Engine Room One 2', one 3'

In Holds, &amp;c. One 2 1/2" to each slush well, and

Ejector suction to all parts.

No. of Bilge Injections 1

Sizes 3 1/2"

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room &amp; size Yes 3"

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

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 14.7.08

of Stern Tube 14.7.08

Screw shaft and Propeller 14.7.08

Is the Screw Shaft Tunnel watertight

None

Is it fitted with a watertight door

BOILERS, &amp;c.—(Letter for record 5)

Manufacturers of Steel Phoenix A.K. Ges. Abt. Hoerder Verein

Total Heating Surface of Boilers 1600 sq

Is Forced Draft fitted No

No. and Description of Boilers 1 Cyl. Multi

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 30.7.08

No. of Certificate 1660

Can each boiler be worked separately

Yes

Area of fire grate in each boiler 43.2 sq

No. and Description of Safety Valves to

each boiler Two Spring

Area of each valve 4.9 sq

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 13' - 6"

Length 11' 0"

Material of shell plates Steel

Thickness 1 1/8"

Range of tensile strength 28.32

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams L.D.

long. seams D.O.S.P.

Diameter of rivet holes in long. seams 1 1/8"

Pitch of rivets 7 1/2"

Lap of plates or width of butt straps 16 1/2"

Per centages of strength of longitudinal joint

rivets 85.44

plate 85.3

Working pressure of shell by rules 185 lbs

Size of manhole in shell 16" x 12"

Size of compensating ring 31" x 28" x 1 1/8"

No. and Description of Furnaces in each boiler 3 plain

Length of plain part

top 8 1/4"

Thickness of plates crown 49

bottom 64

Description of longitudinal joint Welded

No. of strengthening rings None

Working pressure of furnace by the rules 181 lbs

Combustion chamber plates: Material Steel

Thickness: Sides 2 1/32"

Back 5/8"

Pitch of stays to ditto: Sides 9" x 8 1/2"

Back 8 1/2" x 8"

Top 9" x 9"

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules 183 lbs

Material of stays Steel

Diameter at smallest part 1 1/2"

Area supported by each stay 68 sq

Working pressure by rules 200 lbs

Material Steel

Thickness 1 1/8"

Pitch of stays 18" x 1 1/2"

How are stays secured D.N.

Working pressure by rules 181 lbs

Material of stays Steel

Diameter at smallest part 2 3/8"

Area supported by each stay 312.75 sq

Working pressure by rules 207 lbs

Material of Front plates at bottom Steel

Thickness 32

Material of Lower back plate Steel

Thickness 5/8"

Greatest pitch of stays 14"

Working pressure of plate by rules 203 lbs

Diameter of tubes 3 1/2"

Pitch of tubes 4 1/2" x 5"

Material of tube plates Steel

Thickness: Front 29/32"

Back 13/16"

Pitch across wide water spaces 14"

Working pressures by rules 182 lbs

Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 10 1/2" x 1 1/4"

Length as per rule 3' - 2 1/2"

Distance apart 9'

Number and pitch of stays in each Three 9"

Working pressure by rules 213 lbs

Superheater or Steam chest; how connected to boiler

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

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

Foundation



# 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 each top and bottom connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set <sup>each</sup> air feed and bilge pump valves, + a quantity of assorted bolts nuts etc.

The foregoing is a correct description,

Manufacturer.

SHIPBUILDING & ENGINEERING CO. LTD.

F. J. Falgout

Dates of Survey while building { During progress of work in shops - 1908: - Apr 15 May 6. 12. 20 Jun 3. 22. 25 July 4. 8. 9. 14. 16. 20. 24. 25. 27. 29. 30. Aug 13. 18. SECRETARY  
During erection on board vessel - Aug 20. 26. 28. 29  
Total No. of visits 24

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—Cylinders 3.6.08 Slides 16.7.08 Covers 25.7.08 Pistons 3.6.08 Rods 3.6.08  
Connecting rods 3.6.08 Crank shaft 3.6.08 Thrust shaft 25.6.08 Tunnel shafts \_\_\_\_\_ Screw shaft 25.6.08 Propeller 14.7.08  
Stern tube 14.7.08 Steam pipes tested 13.8.08 Engine and boiler seatings 20.7.08 Engines holding down bolts 20.8.08  
Completion of pumping arrangements 29.8.08 Boilers fixed 20.8.08 Engines tried under steam 29.8.08  
Main boiler safety valves adjusted 18.8.08 Thickness of adjusting washers 3/8" 3/8"  
Material of Crank shaft Steel Identification Mark on Do. 2062 176 Material of Thrust shaft Steel Identification Mark on Do. 136 G 4 H  
Material of Tunnel shafts \_\_\_\_\_ Identification Marks on Do. \_\_\_\_\_ Material of Screw shafts Iron Identification Marks on Do. 136 G 4 H  
Material of Steam Pipes Solid drawn Copper Test pressure 360 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 in accordance with the Rules, the materials and workmanship are good. The boiler tested by hydraulic pressure, and with the engines fitted and secured on board, and tried under steam, and found satisfactory. They are now in good order, and safe working condition, and respectfully submitted as being eligible in my opinion, to be classed with the notation of **L.M.C. 8.08** in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 8.08.

JRR

9.9.08.

9.9.08

The amount of Entry Fee. £ 1 : : : When applied for.  
Special .. £ 13 : : : 9/9/08  
Donkey Boiler Fee .. £ : : :  
Travelling Expenses (if any) £ : : : 15/10/08

Committee's Minute

FRI. 11 SEP 1908

Assigned

+ L.M.C. 8.08

MACHINERY CERTIFICATE WRITTEN.

James Barclay

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



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