

REPORT ON MACHINERY.

No. 17706

Port of Hull

Received at London Office

JHUR. 25 MAR 1906

No. in Survey held at

Hull

Date, first Survey

May 19th 05

Last Survey

26th Mar 1906

Reg. Book.

124

Suff on the Steel Se K. Caesar

(Number of Visits 42)

Gross 311

Tons Net 119

When built 1905

Master

Built at Hull

By whom built Messrs Charles G. La

when made

Engines made at

By whom made Messrs

when made

Boilers made at

Hull

By whom made Amos Smith

1906

Registered Horse Power

Owners

Hellyers' Steam Fishing Co. Ltd Port belonging to Hull

Nom. Horse Power as per Section 28

96

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 14" ~ 23" ~ 38" Length of Stroke 24" Revs. per minute 115

Dia. of Screw shaft

as per rule 7.91"

Material of screw shaft

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

Length of stern bush 40"

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

Dia. of Thrust shaft as per rule 7.18"

Dia. of Crank pin 8"

Size of Crank webs 12 1/2 x 5"

Dia. of thrust shaft under

collars 8" Dia. of screw 9" x 9" Pitch of screw 12" - 6" to 11" - 6" No. of blades 4 State whether moveable No Total surface 30.6 sq ft

No. of Feed pumps Two Diameter of ditto 25 1/2" Stroke 18" Can one be overhauled while the other is at work Yes

No. of Bilge pumps Two Diameter of ditto 27 1/2" Stroke 18" Can one be overhauled while the other is at work Yes

No. of Donkey Engines One Sizes of Pumps 6 1/2" x 4 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2" In Holds, &c. One, each 2 1/2" to fish hold, &c.

No. of bilge injections 1 sizes 4" Connected to condenser, or to circulating pump pump Is a separate donkey suction fitted in Engine room & size Yes 2"

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 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 Yes

Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes

When were stern tube, propeller, screw shaft, and all connections examined in dry dock before launching Is the screw shaft tunnel watertight None

Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 1665 sq ft Is forced draft fitted No

No. and Description of Boilers One cyl. Multi Working Pressure 185 lbs Tested by hydraulic pressure to 370 lbs

Date of test 17.2.06 Can each boiler be worked separately Area of fire grate in each boiler 55 sq ft No. and Description of safety valves to

each boiler Two Spring Area of each valve 5.94 sq ft Pressure to which they are adjusted 190 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 5 1/2" Ex Mean dia. of boilers 14" - 0" Length 10' - 7 1/2" Material of shell plates Steel

Thickness 1 1/2" Range of tensile strength 28-32 tons Are they welded or flanged Descrip. of riveting: cir. seams L.D. long. seams D.B.S.L.R.

Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 8.72" Lap of plates or width of butt straps 18 3/4"

Per centages of strength of longitudinal joint rivets 95.1 Working pressure of shell by rules 185 lbs Size of manhole in shell 16" x 12"

Size of compensating ring 40" x 30" x 1 1/2" No. and Description of Furnaces in each boiler 3 Plain Material Steel Outside diameter 41 1/2"

Length of plain part top 5' - 10 5/8" Thickness of plates crown 4 1/2" bottom 6 1/4" Description of longitudinal joint Welded No. of strengthening rings 0

Working pressure of furnace by the rules 191 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back 1 1/2" Top 1 1/2" Bottom 1 1/2"

Pitch of stays to ditto: Sides 7 1/2" x 8 3/4" Back 8" x 8 1/2" Top 7 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 247 lbs

Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 55.21 sq ft Working pressure by rules 214 lbs End plates in steam space:

Material Steel Thickness 1 1/2" Pitch of stays 18" x 15 1/2" How are stays secured screwed into both end plates, nuts in top and washer in bottom Working pressure by rules 191 lbs Material of stays Steel

Area at smallest part 6.10 sq ft Area supported by each stay 279 sq ft Working pressure by rules 218 lbs Material of Front plates at bottom Steel

Thickness 1 1/2" Material of Lower back plate Steel Thickness 1 1/2" Greatest pitch of stays 14" Working pressure of plate by rules 230 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 3/4" Material of tube plates Steel Thickness: Front 1 1/2" Back 1 1/2" Mean pitch of stays 9 1/4"

Pitch across wide water spaces 14" Working pressures by rules 195 lbs Girders to Chamber tops: Material Iron Depth and

thickness of girder at centre 9 1/2" x 1 1/4" Length as per rule 2' - 10" Distance apart 7 1/4" Number and pitch of Stays in each 3 - 7 1/2"

Working pressure by rules 200 lbs Superheater or Steam chest; how connected to boiler 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

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DONKEY BOILER— No. Description

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:—Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set coupling bolts and nuts, one set each air, circulating, feed + bilge pump valves, and a quantity of assorted bolts, nuts, etc.

The foregoing is a correct description,

FOR AMOS & SMITH

Manufacturer.

N.F. Wade
MANAGER

Dates of Survey while building

During progress of work in shops— 1905— May 19 Jun 7 Aug 16 21 24 28 Sep 11 18 25 Oct 2 9 18 23 30 Nov 6 15 20 27 Dec 4 12 1906

During erection on board vessel— Jan 4 10 15 16 23 24 29 Feb 6 10 13 17 20 26 March 15 19 22 26

Total No. of visits 42.

Is the approved plan of main boiler forwarded herewith

No it was sent on with Hull Rpt No 17566

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery boiler of this vessel have been inspected during construction in accordance with the Society's Rules. The materials & workmanship are good. The boiler tested by hydraulic pressure, and with the engines, placed on board and tested under steam, 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 $\frac{1}{2}$ L.M.C. 3.06 in the Register Book.

The machinery and boiler on this vessel are similar to those fitted on the *Gleopatra* Hull Report No 17566

It is submitted that this vessel is eligible for THE RECORD L.M.C. 3.06.

Pms

29.3.06

R.S.
29.3.06

The amount of Entry Fee.. £ 1 : : : When applied for, 28/3/1906

Special .. £ 14 : 8 : : When received, 31.3.06

Donkey Boiler Fee .. £ : : : : 1906

Travelling Expenses (if any) £ : : : : 1906

James Barclay
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
28.3.06

Committee's Minute FRI, 30 MAR 1906

Assigned + L.M.C. 3.06

MACHINERY CERTIFICATE WRITTEN.



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Certificate (if required) to be sent to Hull.