

REPORT ON MACHINERY.

Port of

Grimsby

Received at London Office

MON. 10 APR. 1905

Survey held at

Grimsby

Date, first Survey 20th Oct 1904 Last Survey 27th Mar 1905

(Number of Visits 25)

Ship

Steel steam Trawler "ZINNIA"

Gross 230.

Net 86.

When built 1905

Built at

Goole

By whom built

Goole Shipbuilding Works

Made at

Grimsby

By whom made

Central Co-operative E. & R. Co. Ltd.

Made at

Hull & Co.

By whom made

Central Marine Eng. Works

Rated Horse Power

Owners North Eastern S. & B. Co. Ltd.

Port belonging to

Grimsby

Horse Power as per Section 28

68.5

Is Refrigerating Machinery fitted

No.

Is Electric Light fitted

No.

MACHINES, &c.—Description of Engines Triple Exp. Surf. Cond.

No. of Cylinders 3

No. of Cranks 3

of Cylinders

12-2 1/2-34

Length of Stroke

24

Revs. per minute

110

Dia. of screw shaft

as per rule 7.24

of Tunnel shaft

as per rule 6.4

Dia. of Crank shaft journals

as per rule 6.8

Dia. of Crank pin

6 3/4

Size of Crank webs

4 x 9 1/4

of Thrust shaft

Dia. of screw

8-6

Pitch of screw

10-6

No. of blades

4

State whether moveable

No.

of Feed pumps

X 1

Diameter of ditto

24

Stroke

12

Can one be overhauled while the other is at work

Yes

of Bilge pumps

X 1

Diameter of ditto

3

Stroke

12

Can one be overhauled while the other is at work

Yes

of Donkey Engines

1

Sizes of Pumps

Cy. 52. Imp 3 x 6 stroke

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

2"

In Holds, &c.

Forepeak, Fish hold, 2"

Engine Room

Bilge, Sea, Hotwell, 2 bore

In Holds, &c.

Forepeak, Fish hold, 2 bore

Is a separate donkey suction fitted in Engine room & size

2 1/2"

Are the roses in Engine room always accessible

Yes

Are the roses on Engine room bulkheads always accessible

None

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

What pipes are carried through the bunker

Forepeak & Fish hold

How are they protected

Shag 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

New

Is the screw shaft tunnel watertight

None

Is it fitted with a watertight door

Yes

worked from

Yes

OILERS, &c.—

(Letter for record)

Total Heating Surface of Boilers

Is forced draft fitted

No. and Description of Boilers

Working pressure

Tested by hydraulic pressure to

Date of test

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of safety valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Main dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are they welded or riveted

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

Thick. of plates

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of Stays in each

Working pressure by rules

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

Engines 7-28

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W1614-0037

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:— 2 each of crank pin & cross head & bearing bolts. One set coupling bolts. One set feed & bilge pump valves. Feed check valves (main & donkey) air and circulating pump valves. 2 safety valve springs, bolt & nuts, stud iron

The foregoing is a correct description,

Manufacturer.

For the GREAT CENTRAL CO-OPERATIVE
ENGINEERING & SHIP REPAIRING COMPANY, LTD.

Fred Lister

Dates of Survey while building During progress of work in shops— 1904 October 20²² Nov 16, 22, 26 Decr. 2, 6, 15, 17, 21, 30 1905 Jan 7, 13, 20, 27 Feb 4, 14, 28, Mar 13
During erection on board vessel— 1905 Mar. 14, 16, 20, 24 & 27
Total No. of visits Twenty Five

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

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

Material of screw shaft *Steeple 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 *Yes*
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 *✓*

This machinery has been constructed under special survey the materials & workmanship are good; it has been satisfactorily secured on board the vessel and tried under steam, and is eligible in my opinion to have record of + L.M.C. 3.05 in the Society's Repeater Book.

It is submitted that
this vessel is eligible for
THE RECORD

L.M.C. 3.05

10.4.05 *15.4.05*

The amount of Entry Fee...
Special...
Donkey Boiler Fee...
Travelling Expenses (if any)...
Boiler Fee charged as per...
Committee's Minute...
Assigned...
TUES. 11 APR 1905
+ L.M.C. 3.05

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

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