

REPORT ON MACHINERY.

Port of

Grimsby

Received at London Office

Eug. No. 27
FEB. 10 JAN 1905

No. in Survey held at

Grimsby

Date, first Survey

Oct. 14/4

Last Survey

January 1905

(Number of Visits)

17

Book.

On the

Steel Screw Trawler LEO (ex Dispatch)

Gross 80.
Net 60.

ster

B. Gilding

Built at

Selby

By whom built

Cochran & Sons (No. 333)

When built

1904

ines made at

Grimsby

By whom made

G. Central Co-op. Eng. & M. Co.

When made

1904

lers made at

West Hartlepool

By whom made

Central Marine Eng. Works

When made

1904

istered Horse Power

Owners

Geo. & North Sea Steaming Co. Ltd.

Port belonging to

Grimsby

Horse Power as per Section 28

57

Is Refrigerating Machinery fitted

40

Is Electric Light fitted

40

LINES, &c.—Description of Engines

Ship. Exp. Surf. Cnd. In. Cyl. No. of Cylinders

3

No. of Cranks 3

of Cylinders

11 1/2, 18 1/2, 30

Length of Stroke

22

Revs. per minute

120

Dia. of Screw shaft

6 1/2

of Tunnel shaft

as per rule

50

Dia. of Crank shaft journals

as per rule

6 1/2

Dia. of Crank pin

6 1/2

Size of Crank webs

7 1/2 x 12

of Thrust shaft under

as fitted

6 1/2

Dia. of screw

8-0

Pitch of screw

10-0

No. of blades

4

State whether moveable

40

of Feed pumps

1

Diameter of ditto

2 1/4

Stroke

11

Can one be overhauled while the other is at work

Yes

of Bilge pumps

1

of Donkey Engines

1

Diameter of ditto

3

Stroke

11

Can one be overhauled while the other is at work

Yes

of Donkey Engines

1

Engine Room

Sea bilge & Hotwell

2 bore

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

2 1/2

Fore peak suction

2 bore

Is a separate donkey suction fitted in Engine room & size

6 in. & 2 1/2

of bilge injections

1

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

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

Yes

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

New

Is the screw shaft tunnel watertight

No tunnel

Is fitted with a watertight door

Yes

WORKERS, &c.—

(Letter for record)

Total Heating Surface of Boilers

Is forced draft fitted

Working Pressure

Tested by hydraulic pressure to

and Description of Boilers

No. and Description of safety valves to

Can each boiler be worked separately

Area of flue grate in each boiler

boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Mean dia. of boilers

Length

Material of shell plates

long. seams

Range of tensile strength

Are they welded or flanged

Thickens

Pitch of rivets

Lap of plates or width of butt straps

Descrip. of riveting: cir. seams

Size of manhole in shell

centages of strength of longitudinal joint

Material

Outside diameter

No. of strengthening rings

Length of plain part

top

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Working pressure by rules

End plates in steam space

Material of stays

Diameter of stays

Diameter of smallest part

Material of stays

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Working pressure of plate by rules

Material of Lower back plate

Thickness

Greatest pitch of stays

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Girders to Chamber tops: Material

Depth and

Pitch across side water spaces

Working pressures by rules

Thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of Stays in each

Can the superheater be shut off and the boiler worked

Description of longitudinal joint

Diam. of rivet

Working pressure by rules

Superheater or Steam chest; how connected to boiler

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

Working pressure by rules

Superheater or Steam chest; how connected to boiler

Diameter

Length

Thickness of shell plates

Material

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

How stayed

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Is the screw shaft tunnel watertight

No tunnel

Is fitted with a watertight door

Yes

at pipes are carried through the bunkers

Yes

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

Are the discharge pipes above or below the deep water line

above

they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Yes

Are they Valves or Cocks

Both

all connections with the sea direct on the skin of the ship

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices on Engine room bulkheads always accessible

Yes

all the bilge suction pipes fitted with roses

Yes

of bilge injections

1

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2 bore

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

2 1/2

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6 in. & 2 1/2

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2 bore

of Donkey Engines

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No. of Cranks 3

of Cylinders

11 1/2, 18 1/2, 30

Length of Stroke

22

Revs. per minute

120

Dia. of Screw shaft

as per rule

6 1/2

Lgth. of stern bush

2-3

of Tunnel shaft

as fitted

6 1/2

Dia. of Crank shaft journals

as per rule

6 1/2

Dia. of Crank pin

6 1/2

Size of Crank webs

7 1/2 x 12

Dia. of thrust shaft under

as fitted

6 1/2

Dia. of screw

8-0

Pitch of screw

10-0

No. of blades

4

State whether moveable

40

Total surface

23 1/2

of Feed pumps

1

Diameter of ditto

2 1/4

Stroke

11

Can one be overhauled while the other is at work

Yes

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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:— 2 each of top & bottom end main bearing bolts. One set coupling bolts. One set each of feed bilge air re-ventilating & donkey pump valves, main & donkey feed check valves, Condenser boiler tubes, safety valve spring, Balbourns, screwed bars etc.

The foregoing is a correct description,
Manufacturer.

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

Armed Lister

Dates of Survey while building

During progress of work in shops - - 1904. Oct^r 1. 6. 20. 22. 28. Nov^r 8. 9. 11. 22. 26. Secretary, Dec^r 26. 12.

During erection on board vessel - - Dec^r 15. 17. 19. 1905. Jan. 2.

Total No. of visits 17.

Is the approved plan of main boiler forwarded herewith *Yes.*

" " " donkey " " "

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

Material of screw shaft *Perp. steel* 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 being good; it has been securely fastened on board the vessel and tried under steam, and is in my opinion eligible for record of + R.M.C. 1.05 (i red)

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 1.05.

EmS.

10.1.05

Certificate (if required) to be sent to this office

The amount of Entry Fee... £ 1 : 0 : 0 When applied for,

Special ... £ 8 11 0 9 Jan^r 1905

Donkey Boiler Fee ... £ 9 11 0 When received,

Committee's Minute *6.15.0*

Assigned *+ L.M.C. 1.05*

FRI. JAN 13 1905

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

