

## REPORT ON MACHINERY.

No. 73326

Received at London Office JUL 21 1920

Date of writing Report

19

When handed in at Local Office

19. 7.

19 20 Port of

Newcastle

No. in Survey held at

Lenth Shields

Date, First Survey

1st Sept 1919.

Last Survey

11th June 1920

Reg. Book.

on the SS. "Wynstone"

Engine no 606.

(Number of Visits)

Gross Tons

Net Tons

Master

Built at Lowestoft

By whom built

John Chambers Ltd

When built

1920.

Engines made at

Lenth Shields.

By whom made

G. J. Gray &amp; Co Ltd.

when made

1920.

Boilers made at

Lundland.

By whom made

G. J. Gray &amp; Co Ltd.

when made

1920.

Registered Horse Power

600

Owners

Messrs Stone &amp; Relf

Port belonging to

Llanelli

Nom. Horse Power as per Section 28

108.

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

15" x 14" x 14"

Length of Stroke

24"

Revs. per minute

100

Dia. of Screw shaft

as per rule 5.1  
as fitted 5.5

Material of

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

Yes

Length of stern bush

36 3/4"

Dia. of Tunnel shaft

as per rule  
as fitted none.

Dia. of Crank shaft journals

as per rule  
as fitted 8"

Dia. of Crank pin

8"

Size of Crank webs

11" x 5 1/4"

Dia. of thrust shaft under

collars

8"

Dia. of screw

9 1/4"

Pitch of Screw

11-3"

No. of Blades

14

State whether moveable

No

Total surface

43 1/2

No. of Feed pumps

2

Diameter of ditto

2 1/2"

Stroke

14"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2"

Stroke

14"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

1 1/2" x 4" x 6"

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

Engine Room

Three 2" &amp; 1 donkey pump see 2 1/2"

In Holds, &amp;c.

Six 2"

No. of Bilge Injections

1

size

3 1/2"

Connected to condenser, or to circulating pump

Pump

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

Yes 2 1/2"

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

Are all pipes carried through the bunkers

Held by 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

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

VALVES, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Spencer &amp; Sons.

Total Heating Surface of Boilers

1844

Is Forced Draft fitted

No

No. and Description of Boilers

One Single Ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

14-5-20

No. of Certificate

3685

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

50

No. and Description of Safety Valves to

boiler 2 Spring Loaded

Area of each valve

5 1/2"

Pressure to which they are adjusted

185

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18 ins

Mean dia. of boilers

14"

Length

14'

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Percentages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top  
bottom

Thickness of plates

crown  
bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

End plates in steam space:

Material of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

Material of stays

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Area 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

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Number of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Girders 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

% of strength of joint

Working pressure by rules

Steam dome: description of joint to shell

% of strength of joint

Diam. of rivet holes

Material

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

No. of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Pressure to which each is adjusted

Is Easing Gear fitted

Number of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Lloyd's Register

Foundation

W491-0105



IS A DONKEY BOILER FITTED? *Yes* If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied:— *2 connecting rod top end bolts + nuts. 2 connecting rod bottom end bolts + nuts. 2 main bearing bolts + nuts. 1 set of coupling bolts + nuts. 1 set piston bolts + nuts. 1 set feed pump valves. 1 set of big pump valves. 1 set of air + circulating pump valves. 1 propeller ready for fitting.*

The foregoing is a correct description,

*For Geo. J. Grey & Co.*

*H. Meuler & Co. Engineers*

Dates of Survey while building	{	During progress of work in shops	1919 Sep. 18. Oct. 27. Dec. 30. 1920 Jan. 21. Feb. 11. Mar. 22. Apr. 15. May 19. 26. Jun. 2. 9.
		During erection on board vessel	1920 July 14. Aug. 10. Sep. 10. Oct. 16. 19. 20 Nov. 4. 9. 15. 18.
		Total No. of visits	22. 33

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

" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders *4-5-20* Slides *4-5-20* Covers *31-5-20* Pistons *31-5-20* Rods *14-5-20*

Connecting rods *17-5-20* Crank shaft *4-5-20* Thrust shaft *2-6-20* Tunnel shafts *None* Screw shaft *2-6-20* Propeller *11-6-20*

Stern tube *17-5-20* Steam pipes tested *24-9-20* Engine and boiler seatings *14-6-20* Engines holding down bolts *10-8-20*

Completion of pumping arrangements *20-10-20* Boilers fixed *M.B. 24-9-20 D.B. 15-11-20* Engines tried under steam *20-10-20*

Completion of fitting sea connections *27-4-20* Stern tube *27-4-20* Screw shaft and propeller *27-5-20*

Main boiler safety valves adjusted *20-10-20 D.B. 15-11-20* Thickness of adjusting washers *M.B. P  $\frac{5}{16}$ " S  $\frac{3}{16}$ " D.B. F  $\frac{3}{16}$ " A  $\frac{1}{2}$ "*

Material of Crank shaft *Steel* Identification Mark on Do. *1639 WCH* Material of Thrust shaft *Steel* Identification Mark on Do. *2022 H*

Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Steel* Identification Marks on Do. *2021 H*

Material of Steam Pipes *Copper* Test pressure *360 lbs.*

Is an installation fitted for burning oil fuel *No* Is the flash point of the oil to be used over 150°F. *✓*

Have the requirements of Section 49 of the Rules been complied with *✓*

Is this machinery duplicate of a previous case *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines of this vessel have been constructed under special survey and the materials and workmanship are sound and good.*

*On completion the engines were forwarded to Messrs Chambers, Shipbuilders, Lowestoft, for installing on their vessel.*

*The Engines together with the Main & donkey boilers, have been examined, whilst being installed in the vessel, afterwards tried under working conditions, found satisfactory, and safety valves of main & donkey boilers adjusted under steam, when boilers were also examined.*

*The machinery of this vessel is now in good working condition and eligible in my opinion to have the Record L.M.C 11-20 entered in the Register Book.*

*It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 11. 20*

The amount of Entry Fee ... £ *2 : 0 : 0* When applied for, *13/12/20*

Special ... £ *5 : 0 : 0* *7 DEC 1920*

Donkey Boiler Fee ... £ *5 : 0 : 0* *When received, 17.1.21*

Fitting on Board ... £ *4 : 10 : 0* *13.8.20*

Travelling Expenses (if any) ... £ *4 : 10 : 0*

Committee's Minute *FRI. 17 DEC. 1920*

Assigned *+ L.M.C. 11.20*