

Rpt. 4.

REPORT ON MACHINERY.

No. 73568
FRI SEP 24 1920

23 SEP 1920

Received at London Office

NEWCASTLE ON-TYNE

Date of writing Report

19

When handed in at Local Office

19

Port of

No. in Survey held at
Reg. Book.South Shields
on the SS. "Emlynton"

Date, First Survey

30th Dec. 1919

Last Survey

14th Sept 1920

1920

Engines ho 604.

(Number of Visits

28)

8th Feb Spanish 1921

Tons

Gross

Net

Master

Built at Lemestoft

By whom built

Chambers & Co Ltd No 502 When built 1921

Engines made at

South Shields

By whom made

G. J. Gray & Co Ltd

when made 1919

Boilers made at

Sunderland

By whom made

G. Black Ltd. No. 11022

when made 1920

Registered Horse Power

600

Owners

Emlyn Line Ltd

Port belonging to Cardiff

Nom. Horse Power as per Section 28

108

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

15" x 15" x 41"

Length of Stroke

27

Revs. per minute

100

Dia. of Screw shaft

as per rule 8.1

Material of screw shaft

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

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

Yes

If two

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

Yes

Length of stern bush

3' 0 3/4"

Dia. of Tunnel shaft

as per rule 7.48

Dia. of Crank shaft journals

as per rule 7.675

Dia. of Crank pin

8"

Size of Crank webs 1 1/2" x 5 1/4"

collars

8"

Dia. of screw

9.4"

Pitch of Screw

11.3"

No. of Blades

4

State whether moveable

No

Total surface

43 sq ft

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

6 x 4 x 6"

8 x 9 x 8"

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

In Engine Room

Three 2" & one Separate direct 2 1/2" In Holds, &c. Two 2" in each hold

After Peak one 2"

O.B. Tanks thru 2" each. Fore Peak one 2"

No. of Bilge Injections

1

sizes

3 1/2"

Connected to condenser, or to circulating pump

cp.

Is a separate Donkey Suction fitted in Engine room & size

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 bunker

For 4 Hold Bilge & Ballast Suction. How are they protected

Wood Casings

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

Yes

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Spencer & 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

3687

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

2 Spring Loaded

Area of each valve

5.9"

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

18"

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

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

rivet plate

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

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

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

Area 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

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

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water space

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

Steam dome: Description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch 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

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Lloyd's Register
Foundation
W 542-0071

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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 coupling bolts + nuts. 1 set feed pump valves, 1 set bilge pump valves, 1 set of air + circulating pump valves. 1 propeller. 1 set of piston bolts + nuts.

The foregoing is a correct description,

GEO. T. GREY & CO. LTD.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1919 Dec. 30 Jan. 21. 26 Feb. 26 Mar. 22 Apr. 15. 22. 26 May. 4. 19. 26. 31. Jun. 1. 2. Jul. 2. 7. 13. 20
During erection on board vessel --- 1920 June 10. 14. 21 Sep. 10. 24 Oct. 1. 6. 19 Nov. 4. 15. 18. 29 Dec. 15. 21. 23. 30 1921 Jan. 6. 11. 14. 24 Feb. 8
Total No. of visits 26 + 21 = 49

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 26.5.20 Slides 7.7.20 Covers 26.8.20 Pistons 31.5.20 Rods 11.6.20
Connecting rods 26.1.20 Crank shaft 2.6.20 Thrust shaft 2.7.20 Tunnel shafts ✓ Screw shaft 2.7.20 Propeller 11.6.20
Stern tube 17.5.20 Steam pipes tested 15.11.20 Engine and boiler seatings 1.7.20 Engines holding down bolts 4.11.20.
Completion of pumping arrangements 23.12.20 Boilers fixed 19.10.20 Engines tried under steam 23.12.20
Completion of fitting sea connections 14.6.20 1.7.20 Stern tube 21.7.20 Screw shaft and propeller 13.7.10. 21.7.20
Main boiler safety valves adjusted 23.12.20 Thickness of adjusting washers 5 5/16" 2 7/16" D.B. 3/8".
Material of Crank shaft S.M.S. Identification Mark on Do. 629 M.S.M. Material of Thrust shaft S.M.S. Identification Mark on Do. 2024 M.S.
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts S.M.S. Identification Marks on Do. 4885 J.P.
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 Yes. If so, state name of vessel "Wynstone"

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

On completion the engines were despatched to Lowestoft for installing on board.

The machinery of this vessel has been examined whilst being installed in vessel, afterwards tried under full power working conditions, found satisfactory, with main & donkey boiler safety valves adjusted under steam, and is now eligible in our opinion to have the Record of L.M.C 2-21 in the Society's Register Book

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 2.21.

The amount of Entry Fee ... £ 2 : - }
Special ... £ 5 : 1 }
Donkey Boiler Fee ... £ 5 : 8 }
Travelling Expenses (if any) £ 4 : 4 }
When applied for, 23 SEP 1920
When received, 26.10.20

Committee's Minute

Assigned

FRI. 25. FEB. 1921

+ L.M.C 2.21

CERTIFICATE WRITTEN

Engineer Surveyor to Lloyd's Register of Shipping.

Robert Rae & A.C. Farm
Lloyd's Register Foundation