

REPORT ON MACHINERY

W1145-0043

No. 11939

TUE. 13 MAY. 1924

Received at London Office

Date of writing Report

19

When handed in at Local Office

9.5.24

Port of

MIDDLESBRO'

No. in Survey held at

Glasgow + Haverton Hill

Date, First Survey 15th March

Last Survey

7th May 1924

Reg. Book.

on the

Steel screw steamer **TIMBERHAM**

(Number of Plates

(S.S.N. 60)

Tons

Gross

Net

Master

Built at Haverton Hill

By whom built Furness S. B. Co. Ltd

When built 1924

Engines made at

Glasgow

By whom made

Ross + Duncan

(No. 1132)

when made 1924

Boilers made at

Glasgow

By whom made

Ross + Duncan

(No. 1697-8)

when made 1924

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

156

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

17-2 1/2 - 4 1/2

Length of Stroke

33

Revs. per minute

Dia. of Screw shaft

as per rule

2.86

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

In the propeller boss

yes

If the liner is in more than one length are the joints burned

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

Length of stern bush

40 1/2"

Dia. of Tunnel shaft

as per rule

8.73

Dia. of Crank shaft journals

as per rule

9.17

Dia. of Crank pin

9 1/4"

Size of Crank webs

17 1/2 x 6"

Dia. of thrust shaft under

collars

9 1/2"

Dia. of screw

12-3"

Pitch of Screw

12-6"

No. of Blades

4

State whether moveable

no

Total surface

50 sq ft

No. of Feed pumps

2

Diameter of ditto

2 3/4"

Stroke

16 1/2"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3"

Stroke

16 1/2"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

Ballast

6 x 8 x 8 + 6 x 4 1/2 x 6

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

In Engine Room

3 @ 2 1/2"

In Holds, &c. Fore hold 2 @ 3", aft hold 3 @ 3"

Tunnel with one @ 2 1/2"

No. of Bilge Injections

1 size 4"

Connected to condenser or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

yes - 3 1/2"

Are all the bilge suction pipes fitted with

yes

Are the valves in Engine room always accessible

yes

Are the sluices on Engine room bulkheads always accessible

none

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

none

How are they protected

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

Dates of examination of completion of fitting of Sea Connections

15.3.24

of Stern Tube

15.3.24

Screw shaft and Propeller

15.3.24

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from Raised Quarter Deck level.

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

P. Gilchrist + Sons

2.S.B.

Total Heating Surface of Boilers

2806 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

2

single ended

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

7.3.24

No. of Certificate

16452

Can each boiler be worked separately

yes

Area of fire grate in each boiler

39.5 sq ft

No. and Description of Safety Valves to

each boiler

2 - Spring loaded

Area of each valve

4.9

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

2'-0"

Mean dia. of boilers

12'-0"

Length

10'-6"

Material of shell plates

S

Thickness

1"

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1"

Pitch of rivets

7"

Lap of plates or width of butt straps

14 7/8"

Per centages of strength of longitudinal joint

rivets

86.4

Working pressure of shell by rules

182

Size of manhole in shell

16" x 12"

Size of compensating ring

30 1/2 x 26 1/2

No. and Description of Furnaces in each boiler

2

Furnaces

Material

S

Outside diameter

3'-7 1/8"

Length of plain part

top

bottom

Thickness of plates

crown

9/16"

Description of longitudinal joint

weld

No. of strengthening rings

1

Working pressure of furnace by the rules

189

Combustion chamber plates: Material

S

Thickness: Sides

1/16"

Back

5/8"

Top

1/16"

Bottom

1/16"

Pitch of stays to ditto: Sides

9 1/2 x 9

Back

8 1/2 x 8 1/2

Top

9 1/4 x 9

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

195

End plates in steam space

Material of stays

S

Diameter at smallest part

2.07"

Area supported by each stay

85.5 sq in

Working pressure by rules

197

Material of stays

S

Material

S

Thickness

1"

Pitch of stays

16 x 17"

How are stays secured

D.N.L.W.

Working pressure by rules

182

Material of Front plates at bottom

S

Diameter at smallest part

4.57"

Area supported by each stay

7.72 sq in

Working pressure by rules

182

Material of

Front plates at bottom

S

Thickness

7/16"

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2 x 4 1/4"

Material of tube plates

S

Thickness: Front

7/8"

Back

3/4"

Mean pitch of stays

10"

Pitch across wide water spaces

14"

Working pressures by rules

183

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

7 3/4 x 1 3/4"

Length as per rule

30 5/8"

Distance apart

9"

Working pressure by rules

214

Superheater or Steam chest; how connected to boiler

none

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

IS A DONKEY BOILER FITTED? — No —

If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied:— Two each of connecting rod top-end, bottom-end & main bearing bolts & nuts: One set of coupling bolts & nuts: one set each of feed & bilge pump valves: Assorted bolts & nuts: iron of various sizes: One each of main & donkey feed check valves & one safety valve spring

The foregoing is a correct description,
(Signed) *Ross & Duncan*
See Glasgow Report No 43442

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - - } 1924 / Mar 11 24 27 31 Apr 3 7 10 11 12 15 23 25 May 17.
Total No. of visits 14

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

" " donkey " " " *yes*

Dates of Examination of principal parts—Cylinders *gl* Slides *gl* Covers *gl* Pistons *gl* Rods *gl*
Connecting rods *gl* Crank shaft *gl* Thrust shaft *gl* Tunnel shafts *gl* Screw shaft *gl* Propeller *gl*
Stern tube *gl* Steam pipes tested 31. 3. 24 Engine and boiler seatings 15. 3. 24 Engines holding down bolts 15. 4. 24
Completion of pumping arrangements 7. 5. 24 Boilers fixed 7. 5. 24 Engines tried under steam 7. 5. 24
Main boiler safety valves adjusted 7. 5. 24 Thickness of adjusting washers Port *1 1/2* Star *1 1/2*
Material of Crank shaft *S* Identification Mark on Do. *J.S.C* Material of Thrust shaft *S* Identification Mark on Do. *J.S.C*
Material of Tunnel shafts *S* Identification Marks on Do. *J.S.C* Material of Screw shafts *S* Identification Marks on Do. *J.S.C*
Material of Steam Pipes *Solid drawn Copper 4" x N° 7 4 S. 5* Test pressure *400 lb*
Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be used over 150°F. *yes*

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

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *S.S. Martineau* *gl* *141 N° 43364* *111910*

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel was built under Special Survey, see Glasgow Report N° 43442, and has now been satisfactorily fitted on board in accordance with the Rules and the Engines, Boilers & Auxiliaries examined under steam and found satisfactory.

The machinery is in a good and safe working condition and renders the vessel eligible in my opinion to have the notation of *L MC 5. 24* in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + L MC 5. 24. CL.

Wm Morrison
13/5/24

The amount of Entry Fee ... £ 7 : 16 : 0
Special *1/5* ... £ 7 : 16 : 0
Donkey Boiler Fee ... £ 1 : 0 : 0
Travelling Expenses (if any) £ 0 : 0 : 0
When applied for, 12. 5. 1924
When received, 13. 5. 1924

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

Committee's Minute FRI. MAY. 16 1924
Assigned + *L MC 5. 24*
C.L.