

REPORT ON MACHINERY.

No. 43930.

ate of writing Report

19

When handed in at Local Office

19

Port of

Received at London Office

NEWCASTLE-ON-TYNE

April 27th

Last Survey

WED. DEC. 15 1920

Survey held at

South Shields

Date, First Survey

7th June

Last Survey

3rd Dec

1920

on the

SS "Ynebortha"

Built at

South Shields

By whom built

J. Readhead & Sons Ltd.

Tons

Gross 4597

Net 2847

When built

1920

ade at

South Shields

By whom made

J. Readhead & Sons Ltd.

when made

1920

ade at

South Shields

By whom made

J. Readhead & Sons Ltd.

when made

1920

l Horse Power

Owners

Vain SS Co Ltd

Port belonging to

St. Joes

se Power as per Section 28

425.

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes.

ES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

3

No. of Cranks

3

ylinders

27

44

73

Length of Stroke

48

Revs. per minute

68

Dia. of Screw shaft

as per rule 14

77

Material of

Scrap Iron

ew shaft fitted with a continuous liner the whole length of the stern tube

Yes

Is the after end of the liner made water tight

opeller 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

ie bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

Yes

If two

fitted, is the shaft lapped or protected between the liners

Yes

Length of stern bush

8'-0"

nnel shaft

as per rule 13

32

Dia. of Crank shaft journals

as per rule 13

29

Dia. of Crank pin

14 1/2

Size of Crank webs

9 3/8 x 19

Dia. of thrust shaft under

4 3/4

Dia. of screw

17'-6"

Pitch of Screw

17'-0"

No. of Blades

4

State whether moveable

Solid bronze

Total surface

96 sq

ed pumps

2

Diameter of ditto

4 1/2

Stroke

24

Can one be overhauled while the other is at work

Yes

lge pumps

2

Diameter of ditto

4 1/2

Stroke

24

Can one be overhauled while the other is at work

Yes

onkey Engines

3

Sizes of Pumps

Ballast pump 10 x 10 1/4 x 10

General service pump 7 1/2 x 5 x 6

Feed donkey pump 7 1/2 x 5 x 6

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

e Room

Four

2 Port

3 1/2 dia

+ 2 Star

3 1/2 dia

In Holds, &c. Yes 3 1/2 in Nos 1, 2, 3 + 4 holds

one 2 1/2" dia in funnel well

ge Injections

on

sizes 8" dia

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 3 1/2 dia

ilge 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

nnctions with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Both

ized 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

ach 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

es are carried through the bunkers

None

How are they protected

Yes

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

ilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Yes

rev Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Top platform

RS, &c.—(Letter for record

S Y

Manufacturers of Steel

John Spencer & Sons Ltd

Manchester

ating Surface of Boilers

6876 sq

Is Forced Draft fitted

No

No. and Description of Boilers

3

Single ended

Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

8/9/20

No. of Certificate

9459

boiler be worked separately

Yes

Area of fire grate in each boiler

63.3 sq

No. and Description of Safety Valves to

Two spring loaded

Area of each valve

7.06

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Yes

istance between boilers or uptakes and bunkers or woodwork

1'-10"

Mean dia. of boilers

15'-7 1/4"

Length

11'-6"

Material of shell plates

Steel

1/4" Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R. lap.

as T.R.D. butt

Diameter of rivet holes in long. seams

15/16

Pitch of rivets

9/8

Lap of plates or width of butt straps

19 1/2"

ges of strength of longitudinal joint

rivets 88.3%

plate 85.6%

Working pressure of shell by rules

181.02

Size of manhole in shell

16" x 12"

Compensating ring

7" x 1 1/4"

No. and Description of Furnaces in each boiler

3 Morrison

Material

Steel

Outside diameter

4'-2 3/16

plain part

top

Thicknes of plates

crown 1/32

Description of longitudinal joint

Welded

No. of strengthening rings

bottom

1

pressure of furnace by the rules

188 lb

Combustion chamber plates: Material

Steel

Thickness: Sides

23/32

Back

1/16

Top

23/32

Bottom

1"

ays to ditto: Sides

10 x 9 1/4

Back

10 1/4 x 8 3/4

Top

10 1/2 x 9 1/2

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

192 lb

of stays

Area at smallest part

2.43

Area supported by each stay

89.6

Working pressure by rules

213 lb

End plates in steam space:

Steel

Thickness

1 1/32

Pitch of stays

21 x 21 3/4

How are stays secured

DN + W

Working pressure by rules

191 lb

Material of stays

Steel

smallest part

8.48

Area supported by each stay

445.8

Working pressure by rules

197 lb

Material of Front plates at bottom

Steel

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied:— *One propeller shaft, One propeller, Two main bearing bolts, Two bottom end & two top end bolts, One set of coupling bolts, One set of feed pump valves, One set of large pump valves, One main boiler tube, Three main condenser tubes, Six junk ring bolts, Three patent tube stoppers, Three plain tube stoppers, assorted bolts & nuts.*

The foregoing is a correct description,

FOR JOHN HEADHEAD & SONS, LIMITED.

W. R. Hurry, Eng. Manager.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *1920. Apr. 27. May 12. June 4. 30. July 12. 19. 23. 26. 28. Aug. 4. 16. 30. 31. Sept. 8. 9. 16.*
During erection on board vessel -- *28. 29. Oct. 6. 21. 28. Nov. 3. 8. 15. 25. Dec. 3.*
Total No. of visits *27*

Is the approved plan of main boiler forwarded herewith *no*

" " " donkey " " " *yes*

Dates of Examination of principal parts—Cylinders *31/8/20* Slides *31/8/20* Covers *31/8/20* Pistons *31/8/20* Rods *9/9/20*
Connecting rods *31/8/20* Crank shaft *31/8/20* Thrust shaft *9/9/20* Tunnel shafts *19/7/20* Screw shaft *31/8/20* Propeller *6/10/20*
Stern tube *20/8/20* Steam pipes tested *8/9/20* Engine and boiler seatings *30/8/20* Engines holding down bolts *8/4/20, 11/4/20*
Completion of pumping arrangements *15/11/20* Boilers fixed *12/10/20* Engines tried under steam *15/4/20*
Completion of fitting sea connections *20/8/20* Stern tube *30/8/20* Screw shaft and propeller *12/10/20*
Main boiler safety valves adjusted *15/11/20* Thickness of adjusting washers *15/32 7/16 5/32 5/32 3/8 3/8*
Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S No. 32080 MR* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S No. 2199 19. 7. 20 W.L.H.*
Material of Tunnel shafts *Scrap Iron* Identification Marks on Do. *LLOYD'S No. 2199 31. 8. 20 W.L.H.* Material of Screw shafts *Scrap Iron* Identification Marks on Do. *LLOYD'S No. 2199 31. 8. 20 W.L.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 *Yes* If so, state name of vessel *S/S "Terorian"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been constructed under special survey the material and workmanship are of good quality it has been securely fitted on board and satisfactorily tried under steam at meetings for 2 1/2 hours.*

The machinery of this vessel is now in my opinion eligible for record + LMC. 12.20. entered in the Register Book

It is submitted that this vessel is eligible for THE RECORD. + LMC. 12.20

*Reed
J.M. 17/12/20*

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 41 : 5 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *14 DEC 1920*
When received, *18/12/1920*

W. L. Hall
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE. 21 DEC 1920*

Assigned *+ L.M.C. 12.20*

CERTIFICATE WRITTEN.



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