

REPORT ON MACHINERY.

No. 28362

WED. JUL. 4 1922

Date of writing Report

19

When handed in at Local Office

4 JUL 1922

Port of

SUNDERLAND.

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey

15 Decr. 1920

Last Survey

4 July 1922

1922

on the new steel S/S "S.N.A.7."

(Number of Visits 37)

Gross 2652

Net 1366

Master

Built at Sunderland

By whom built

O. Bourne & Graham & Co (S/N 245)

When built

1922

Engines made at Sunderland

By whom made

Richardson Westgarth & Co Ltd (N° 2165)

when made

1922

Boilers made at Sunderland

By whom made

Richardson Westgarth & Co Ltd (N° 2165)

when made

1922

Registered Horse Power

Owners

Soc. Nationale d'Affrètement

Port belonging to

Hague

Nom. Horse Power as per Section 28

316

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 23½"-38"-64" Length of Stroke 42"

Revs. per minute 70

Dia. of Screw shaft

as per rule 12.98"

Material of screw shaft

Whitson

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

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

Length of stern bush 4'5½"

Dia. of Tunnel shaft

as per rule 11.6"

Dia. of Crank shaft journals

as per rule 12.2"

Dia. of Crank pin 13"

Size of Crank webs 24½" x 7¾"

Dia. of thrust shaft under

collars 12½"

Dia. of screw 15'9"

Pitch of Screw 16'6"

No. of Blades 4

State whether moveable

no

Total surface

78 sq ft

No. of Feed pumps 2

Diameter of ditto 6"

Stroke 18"

Can one be overhauled while the other is at work

(Woodson's)

steam cyl 8½"

No. of Bilge pumps 2

Diameter of ditto 3½"

Stroke 27"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines 3

SIZES OF PUMPS

3 @ 10½" x 21"

1 @ 7½" x 8"

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

In Engine Room 3 @ 3" & 1 @ 2½"

Tunnel well, - 1 @ 2½"

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

After hold, 3 @ 3"

No. of Bilge Injections 1

sizes 7"

Connected to condenser, or to circulating pump

C.P.

Is a separate Donkey Suction fitted in Engine room & size

yes, 3½"

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

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 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

forward hold suction

How are they protected

under 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 Top platform

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

John Spence & Sons Ltd.

Total Heating Surface of Boilers 5264 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

Two, single ended marine.

Working Pressure 180

Tested by hydraulic pressure to

322

Date of test

25-1-22

No. of Certificate

3789

Can each boiler be worked separately

yes

Area of fire grate in each boiler

71.5 sq ft

No. and Description of Safety Valves to

each boiler

two, direct spring

Area of each valve

8.290"

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

16'-0"

Length

11'-9"

Material of shell plates

steel

Thickness 1¼"

Range of tensile strength

28¾-32¾ tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D.R.

long. seams

WBS. TR

Diameter of rivet holes in long. seams

1 9/32"

Pitch of rivets

8 5/8"

Top of plates or width of butt straps

18"

Per centages of strength of longitudinal joint

rivets 89

plate 85.15

Working pressure of shell by rules

180

Size of manhole in shell

16" x 12"

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

4 corrugated

Material

steel

Outside diameter

43 9/16"

Length of plain part

top 11"

Thickness of plates

bottom 1 1/32"

Description of longitudinal joint

welded

No. of strengthening rings

—

Working pressure of furnace by the rules

210

Combustion chamber plates: Material

steel

Thickness: Sides

11/16"

Back 23/32"

Top 11/16"

Bottom 13/16"

Pitch of stays to ditto: Sides

9 3/4" x 9 3/4"

Back 8 5/8" x 11 1/8"

Top 9 3/4" x 9 3/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

180

Material of stays

steel

Area at smallest part

2.030"

Area supported by each stay

96.950"

Working pressure by rules

190

End plates in steam space:

Material

steel

Thickness

1 1/32"

Pitch of stays

21 3/4" x 16"

How are stays secured

DN & W

Working pressure by rules

182

Area at smallest part

6.10"

Area supported by each stay

21 3/4" x 16"

Working pressure by rules

182

Material of Front plates at bottom

steel

Thickness

25/32"

Material of Lower back plate

steel

Thickness

7/8"

Greatest pitch of stays

14 1/4" x 9 1/2"

Working pressure of plate by rules

180

Diameter of tubes

3 1/4"

Pitch of tubes

4 1/2" x 4 1/4"

Material of tube plates

steel

Thickness: Front

25/32"

Back 25/32"

Mean pitch of stays

11 7/8"

Pitch across wide water spaces

14" (11/16")

Working pressures by rules

198

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

9 @ 1 1/2"

Length as per rule

32 1/2"

Working pressure by rules

189

Steam dome: description of joint to shell

none

% 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

5400-5511M

IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— Two connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump valves, iron and bolts of various sizes, one screw shaft and one propeller

The foregoing is a correct description,
FOR RICHARDSONS, WESTGARTH & CO., L.

Richard Russell

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1920. Dec. 15, 16, 22, 24. 1921. Feb. 10. Mar. 21. Apr. 12, 28, 29. May 5, 6, 13, 20. June 2, 14. Sep. 8, 10, 17, 25.
During erection on board vessel - - - Nov. 1, 12. 1922. Jan. 17, 24, 25. Feb. 22. Mar. 2, 5, 17, 20, 21, 27. Apr. 3, 5, 11. May 2, 4. June 22. July 4.
Total No. of visits 37.

Is the approved plan of main boiler forwarded herewith copy

" " " donkey " " " ☒

Dates of Examination of principal parts—Cylinders 14-6-21 Slides 24-1-22 Covers 18-11-21 Pistons 18-11-21 Rods 24-10-21
Connecting rods 24-1-22 Crank shaft Hpl Thrust shaft 22-12-20 Tunnel shafts 2-3-22 Screw shaft 2-3-22 Propeller 2-3-22
Stern tube 2-3-22 Steam pipes tested 2-3-22 & 5-4-22 Engine and boiler seatings 2-3-22 Engines holding down bolts 3-4-22
Completion of pumping arrangements 22-6-22 Boilers fixed 27-3-22 Engines tried under steam 11-4-22
Completion of fitting sea connections 2-3-22 Stern tube 17-3-22 Screw shaft and propeller 20-3-22
Main boiler safety valves adjusted 11-4-22 Thickness of adjusting washers Port boiler, - both $\frac{13}{32}$ Shell, - $\frac{17}{16}$, $\frac{5}{8}$ "
Material of Crank shaft 9. Steel Identification Mark on Do. 6261RDS Material of Thrust shaft 9. steel Identification Mark on Do. 5565EYR
Material of Tunnel shafts Samp 2um Identification Marks on Do. 2507LCD Material of Screw shafts Samp 2um Identification Marks on Do. 2507LCD
Material of Steam Pipes Solid drawn copper Test pressure 400 lbs per sq"

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 "S.N.A.G." Sld Rpt No. 28212.

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

The materials and workmanship are good

The machinery has been constructed under special survey and is eligible in my opinion for classification and the record
+ LMC 7.22

It is submitted that
this vessel is eligible for
THE RECORD.

+ L.M.C. - 7.22. C.L.

L.J. 7/7/22.

A.F.H.

The amount of Entry Fee ... £ 5 : - : When applied for.

Special ... £ 72 : 8 : 26 June 1922

Donkey Boiler Fee ... £ : : When received.

Travelling Expenses (if any) £ : : 22/7/22 H.M.

TUE. 11 JUL. 1922

Committee's Minute

Assigned

MACHINERY DEPT.
WRITTEN

+ LMC 7.22. CL

L.C. Davis.

Engineer Surveyor to Lloyd's Register of Shipping.



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Foundation