

REPORT ON MACHINERY.

No. 27304

Received at London Office

MON. 12. AUG. 1918

Date of writing Report

19

When handed in at Local Office

10 AUG 1918

Port of Sunderland

No. in Survey held at Sunderland

Date, First Survey 28 Dec 17

Last Survey 25 July 1918

(Number of Visits 29)

Gross 3124

Net 1877

on the new steel S/S WAR COPPICE

Master Milburn

Built at Sunderland

By whom built J. Blumer & Co. (S/NP 247)

When built 1918

Engines made at Sunderland

By whom made J. Dickinson & Sons Ltd (N° 824)

when made 1918

Boilers made at Sunderland

By whom made J. Dickinson & Sons Ltd (825)

when made 1918

Registered Horse Power

Owners the Shipping Controller (Havel. Ltd)

Port belonging to London

Nom. Horse Power as per Section 28 430

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 25" 41" 68"

Length of Stroke 45"

Revs. per minute 80

Dia. of Screw shaft as per rule 13.58"

Material of screw shaft superior

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 -

If two

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

Length of stern bush 5'-0"

Dia. of Tunnel shaft as per rule 12.4"

Dia. of Crank shaft journals as per rule 13.03"

Dia. of Crank pin 13 1/4"

Size of Crank webs 8 3/4 x 2 1/2"

Dia. of thrust shaft under collars 13 1/4"

Dia. of screw 16'-0"

Pitch of Screw 16'-3"

No. of Blades 4

State whether moveable no

Total surface 75 sq ft

No. of Feed pumps 2

Diameter of ditto 3 1/2"

Stroke 24"

Can one be overhauled while the other is at work yes

No. of Bilge pumps 2

Diameter of ditto 3 1/2"

Stroke 24"

Can one be overhauled while the other is at work yes

No. of Donkey Engines 3

Sizes of Pumps 10 1/2 x 12 1/2 x 21, 20 9/16 x 7 x 18" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 @ 3"

In Holds, &c. N°1 hold 2 @ 3", N°2 hold - 2 @ 3"

brass links 2 @ 3", N°3 hold 2 @ 3", N°4 hold 2 @ 3 1/2 & 1 @ 3 1/2", Tunnel well 1 @ 2 1/2"

No. of Bilge Injections 2

sizes 8"

Connected to condenser, or to circulating pump b.p.

Is a separate Donkey Suction fitted in Engine room & size yes 3 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 none

Are all connections with the sea direct on the skin of the ship yes

Are they Valves or Cocks both

main below all others above

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

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 timber board

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

access by trunk from deck

Is the Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door no

worked from

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel J. M. Spence & Sons Ltd.

Total Heating Surface of Boilers 6304 sq ft

Is Forced Draft fitted yes

No. and Description of Boilers three single ended marine

Working Pressure 180

Tested by hydraulic pressure to 360

Date of test 14-6-18

No. of Certificate 3480

Can each boiler be worked separately yes

Area of fire grate in each boiler 51 sq ft

No. and Description of Safety Valves to each boiler two direct spring

Smallest distance between boilers or uptakes and bunkers or woodwork 1'-8"

Mean dia. of boilers 14'-0"

Length 11'-8 1/2"

Material of shell plates steel

Thickness 1 1/8"

Range of tensile strength 28 3/4 - 33 tons

Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams DR.

long. seams DRS. TR

Diameter of rivet holes in long. seams 1 3/16"

Pitch of rivets 8 1/2"

Lap of plates or width of butt straps 1'-6"

Per centages of strength of longitudinal joint

rivets 86

plate 86

Working pressure of shell by rules 187

Size of manhole in shell 16 x 12"

Size of compensating ring flanged

No. and Description of Furnaces in each boiler 3 Deighton

Material steel

Outside diameter 3'-7"

Length of plain part

top 11"

bottom 11"

Thickness of plates 1 1/32"

Description of longitudinal joint welded

No. of strengthening rings -

Working pressure of furnace by the rules 190

Combustion chamber plates: Material steel

Thickness: Sides 1/16"

Back 3/4"

Top 1/16"

Bottom 1/16"

Pitch of stays to ditto: Sides 9 3/8 x 9"

Back 9 x 10 1/2"

Top 9 x 9 3/8"

If stays are fitted with nuts or riveted heads nut & rivet

Working pressure by rules 194

Material of stays steel

Area at smallest part 2.050 sq ft

Area supported by each stay 945 sq ft

Working pressure by rules 210

End plates in steam space: -

Material steel

Thickness 1 1/32"

Pitch of stays 23 3/4 x 19 1/2"

How are stays secured by nut & rivet

Working pressure by rules 181

Material of stays steel

Area at smallest part 8.290 sq ft

Area supported by each stay 464 sq ft

Working pressure by rules 186

Material of Front plates at bottom steel

Thickness 3/32"

Material of Lower back plate steel

Thickness 27/32"

Greatest pitch of stays 13 1/2 x 9"

Working pressure of plate by rules 185

Diameter of tubes 2 3/4"

Pitch of tubes 4 x 4"

Material of tube plates steel

Thickness: Front 3/32"

Back 3/4"

Mean pitch of stays 10"

Pitch across wide water spaces 13 1/2"

Working pressures by rules 184

Girders to Chamber tops: Material steel

Depth and thickness of girder at centre 20 10 1/2 x 2 1/2"

Length as per rule 2-11 1/2"

Distance apart 9 3/8"

Number and pitch of stays in each 309"

Working pressure by rules 200

Steam dome: description of joint to shell none

% of strength of joint 80

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

If not, state whether, and when, one will be sent? If a Report also sent on the Hull of the Ship?

5310-652200-052200



