

# REPORT ON MACHINERY.

No. 71550

Received at London Office

TUE OCT. 22. 1918

Reporting Report 20<sup>th</sup> Sept. 1918 When handed in at Local Office

19 Port of

NEWCASTLE-ON-TYNE

Survey held at Newcastle

Date, First Survey 4<sup>th</sup> July 1918 Last Survey 9<sup>th</sup> Oct. 1918

on the S.S. "War Castle"

(Number of Vents 77)

Tons } Gross 5585  
Net 3558

Built at Newcastle

By whom built Northumberland S. B. Co. When built 1918

made at Newcastle

By whom made N. E. Marine Eng Co-2350 when made 1918

made at do

By whom made do 2350 when made 1918

Indicated Horse Power

Owners The Shipping Controller Port belonging to London

Horse Power as per Section 28 619620

Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

VES, & Co.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Cylinders 27-45-75 Length of Stroke 54

Revs. per minute 79

Dia. of Screw shaft

Material of screw shaft Steel

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

propeller 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

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

are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5'-6"

Tunnel shaft as per rule 13.9.67 Dia. of Crank shaft journals as per rule 14.6.65 Dia. of Crank pin 14 7/8 Size of Crank webs 30 1/2 x 9 5/8 Dia. of thrust shaft under

14 7/8 Dia. of screw 17'-9" Pitch of Screw 16'-9" No. of Blades 4 State whether moveable No Total surface 93 sq

Feed pumps 2 (Units) Diameter of ditto 12 x 9 Stroke 21 Can one be overhauled while the other is at work Yes

Bilge pumps 2 Diameter of ditto 4 1/2 Stroke 30 Can one be overhauled while the other is at work Yes

Donkey Engines 2 Sizes of Pumps 10 1/2 x 14 x 24, 9 1/2 x 7 x 18 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Five 3 1/2 In Holds, &c. No 1 hold 2-3 1/2, No 2 hold 2-3 1/2,

No 3 hold 2-3 1/2, No 4 hold 2-3 1/2, Lumber Well 1-2 1/2

Bilge Injections 2 sizes 11 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"

Are 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

connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

Are they fitted 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 Both

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

Pipes are carried through the bunkers Hold sections How are they protected Wood casing

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

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

Time of examination of completion of fitting of Sea Connections 22-7-18 of Stern Tube 22-7-18 Screw shaft and Propeller 16-9-18

Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door No worked from Yes

FRS, & Co.—(Letter for record S) Manufacturers of Steel John Spence & Sons

Heating Surface of Boilers 9525 sq Is Forced Draft fitted Yes No. and Description of Boilers Three, single-ended

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Dates of tests 1-21-8-18 No. of Certificate 1-9137

Can boiler be worked separately Yes Area of fire grate in each boiler 73.4 sq No. and Description of Safety Valves to

each boiler Two, Spring Area of each valve 12.56 sq Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Distance between boilers or uptakes and bunkers or woodwork 2'-9" Mean dia. of boilers 16'-0" Length 12'-5 13/32" Material of shell plates Steel

Forecast 15/16 Range of tensile strength 28 3/4 - 33 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S. Lap

ms J.B.S. & Riv Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 1/2" Lap of plates or width of butt straps 20 1/2"

is to be ages of strength of longitudinal joint rivets 88.6 plate 85.5 Working pressure of shell by rules 191 lbs Size of manhole in shell 16 x 12

compensating ring Flanged No. and Description of Furnaces in each boiler 4, Brighton Material Steel Outside diameter 43"

of plain part top Thickness of plates crown 17 bottom 32 Description of longitudinal joint Welded No. of strengthening rings 4

Working pressure of furnace by the rules 190 lbs Combustion chamber plates: Material Steel Thickness: Sides 23/32 Back 3/4 Top 23/32 Bottom 7/8"

Stays to ditto: Sides 10 1/2 x 8 3/4 Back 10 x 9 13/16 Top 10 1/2 x 8 3/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 198 lbs

of stays Steel Diameter at smallest part 2.03 sq Area supported by each stay 88.59 sq Working pressure by rules 206 lbs End plates in steam space:

Steel Thickness 17/16 Pitch of stays 23 1/2 x 22 1/2 How are stays secured In L W Working pressure by rules 185 lbs Material of stays Steel

at smallest part 9.62 sq Area supported by each stay 52.8 sq Working pressure by rules 189 lbs Material of Front plates at bottom Steel

31/32 Material of Lower back plate Steel Thickness 7/8 Greatest pitch of stays 13 5/8 Working pressure of plate by rules 187 lbs

of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 5/8 Material of tube plates Steel Thickness: Front 31/32 Back 3/4 Mean pitch of stays 9 1/4"

cross wide water spaces 13 5/8 Working pressures by rules 181 lbs Girders to Chamber tops: Material Steel Depth and

of girder at centre 10 1/2 x 1 3/4 Length as per rule 36 1/2 Distance apart 10 1/8 Number and pitch of stays in each 3-8 3/4"

Working pressure by rules 200 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

Yes Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

