

## REPORT ON MACHINERY

No. 77174

SAT DEC 1 1917

Date of writing Report 19/11/17 When handed in at Local Office 19/11/17 Port of LIVERPOOL  
 No. in Survey held at Birkenhead Date, First Survey January 30 Last Survey Novr 10 1917  
 Reg. Book. on the steel S/S. "WAR CYPRESS" (Number of Visits 74 Gross 5167 Net 3151 When built 1917-11.  
 Master C. A. Cowsey Built at Birkenhead By whom built Cammell Laird & Co. L.  
 Engines made at Birkenhead By whom made do do when made do do  
 Boilers made at do By whom made do do when made do do  
 Registered Horse Power Owners Port belonging to London.  
 Nom. Horse Power as per Section 28 490 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted yes

ENGINES, &c. — Description of Engines 4 ft. Expansion Vertical Compound No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 27" 44" 73" Length of Stroke 48" Revs. per minute 82 Dia. of Screw shaft as per rule 14 3/4" Material of steel  
 as fitted 15 1/2" screw shaft  
 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 6' 0 1/4"  
 Dia. of Tunnel shaft as per rule 13.33" Dia. of Crank shaft journals as per rule 14" Dia. of Crank pin 14 1/2" Size of Crank webs 52 x 28 1/2"  
 as fitted 14 1/2" Dia. of thrust shaft under collars 14 3/4" Dia. of screw 17.6 Pitch of Screw 16.6 No. of Blades 4 State whether moveable no Total surface 98.2 sq. ft. Space 102.5 sq. ft.  
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 4" Stroke 24" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines Two Sizes of Pumps Ballast Pump 10 1/2 x 24 x 14 No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Five 3 1/2" Suctions In Holds, &c. No. 1 Hold two 3 1/2" Suctions No. 2 Hold  
 two 3 1/2" Suctions No. 3 Hold two 3 1/2" Suction No. 4 Hold two 3 1/2" Suctions  
 No. of Bilge Injections no size 8" Connected to condenser, or to circulating pump No. 2 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  
 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 and below  
 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 27 & 29 Sept of Stern Tube 29 Sept Screw shaft and Propeller 29 Sept  
 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 Colvilles  
 Total Heating Surface of Boilers 7020 sq. ft. Is Forced Draft fitted yes No. and Description of Boilers 3 Single ended Gt. Multitubular  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 3rd 25th Jan 1917 No. of Certificate 2027.  
 Can each boiler be worked separately yes Area of fire grate in each boiler 63.3 sq. ft. No. and Description of Safety Valves to  
 each boiler two No. 1 Spring loaded Area of each valve 9.62" Pressure to which they are adjusted 185 lbs Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 8' 6" Mean dia. of boilers 15' 6" Length 11' 6" Material of shell plates steel  
 Thickness 1 1/4" Range of tensile strength 28/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D. R. L.  
 long. seams T. Rivette Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 19 1/2"  
 Per centages of strength of longitudinal joint rivets 88.3 Working pressure of shell by rules 182 lbs Size of manhole in shell 16" x 12"  
 plate 85.6 Working pressure of shell by rules 182 lbs Size of manhole in shell 16" x 12"  
 Size of compensating ring 12" No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 4' 2 3/16"  
 Length of plain part top 4 3/4" Thickness of plates crown 19" Description of longitudinal joint welded No. of strengthening rings  
 bottom 4 3/4" Thickness of plates bottom 32" Description of longitudinal joint welded No. of strengthening rings  
 Working pressure of furnace by the rules 188 lbs Combustion chamber plates: Material steel Thickness: Sides 23" Back 11" Top 23" Bottom 32"  
 Pitch of stays to ditto: Sides 10 5/8 x 9 1/4 Back 10 x 9 Top 10 x 9 1/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180.5 lbs  
 Material of stays steel Diameter at smallest part 2.03" Area supported by each stay 98.28 sq. in Working pressure by rules 186 lbs End plates in steam space  
 Material steel Thickness 1 1/2" Pitch of stays 21 3/4 x 20 1/2 How are stays secured 2 nuts Working pressure by rules 181 lbs Material of stays steel  
 Diameter at smallest part 8.29" Area supported by each stay 445.8 Working pressure by rules 193 lbs Material of Front plates at bottom steel  
 Thickness 3/32 Material of Lower back plate steel Thickness 27/32 Greatest pitch of stays 13 3/8 x 9 Working pressure of plate by rules 189 lbs  
 Diameter of tubes 3" Pitch of tubes 4 1/4 x 4 1/8 Material of tube plates steel Thickness: Front 31/32 Back 3/4 Mean pitch of stays 10 1/2"  
 Pitch across wide water spaces 13 5/8 Working pressures by rules 181 lbs Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 11" x 5" Length as per rule 38.56 Distance apart 10 5/8 Number and pitch of stays in each 3 @ 9 1/4"  
 Working pressure by rules 188 lbs 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  
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

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