

# REPORT ON MACHINERY

No. 10209  
WED. 2-OCT. 1918

Received at London Office

4. of writing Report in Survey held at Stockton-on-Tees Date, First Survey 22<sup>nd</sup> Feb/18 Last Survey 18<sup>th</sup> Sept 1918  
Book. on the S.S. "WAR ISLAND" (Standard "C") (Number of Visits) (S.S.N. 200) Tons { Gross 3143  
Net 1873

ster Williams Built at Stockton By whom built Messrs Craig Taylor & Co When built 1918  
ines made at Stockton By whom made Messrs Blair & Co Lim. (N. 1890) when made 1918  
lers made at Stockton By whom made Messrs Blair & Co Lim when made 1918

gistered Horse Power 359 Owners The Shipping Controller Port belonging to London  
Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

GINES, &c.—Description of Engines Tri-compound No. of Cylinders 3 No. of Cranks 3

a. of Cylinders 25-41-68 Length of Stroke 45 Revs. per minute 78 Dia. of Screw shaft 13.58 Material of screw shaft Iron Steel  
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  
the propeller boss yes If the liner is in more than one length are the joints burned in iron 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 tight fit If two  
ers are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 5'-0 1/2"

ia. of Tunnel shaft 12.42 Dia. of Crank shaft journals 13.5 Dia. of Crank pin 13 1/4 Size of Crank webs 24 1/2 x 8 3/4 Dia. of thrust shaft under  
llars 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

To. of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work yes  
To. of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 24 Can one be overhauled while the other is at work yes

To. of Donkey Engines 3 Sizes of Pumps 14 x 18 x 12 2 @ 7 x 18 x 9 1/2 No. and size of Suctions connected to both Bilge and Donkey pumps  
n Engine Room 4 @ 3" In Holds, &c. 2 @ 3" each hold except aftermost where

2 @ 2 1/2" + one @ 3 1/2" Jurnal will run @ 2 1/2"  
Vo. of Bilge Injections 1 sizes 13" Connected to centrifugal circulating pump yes 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

Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates yes Are the Discharge Pipes above or below the deep water line others above  
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 Suctions to forward holds How are they protected wood ceiling  
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 18.6.18 of Stern Tube 18.6.18 Screw shaft and Propeller 29.7.18

Is the Screw Shaft Tunnel watertight see hull Rpt Is it fitted with a watertight door no worked from Trunk at each end  
BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel Messrs J. Spencer & Sons Lim.

Total Heating Surface of Boilers 5841 Is Forced Draft fitted no No. and Description of Boilers 3 single ended  
Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 27.8.18 No. of Certificate 5921

Can each boiler be worked separately yes Area of fire grate in each boiler 51.7 sq ft No. and Description of Safety Valves to  
each boiler 2 direct spring Area of each valve 8.29 sq ft Pressure to which they are adjusted 185 Are they fitted with easing gear yes

Smallest distance between boilers 5'-0" External dia. of boilers 14'-0" Length 11'-8 1/2" Material of shell plates steel  
Thickness 1 1/8" Range of tensile strength 28 1/2 - 33 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams 2 R. lap

long. seams 2 B - 3 Riv Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 18 x 7/8 out  
Per centages of strength of longitudinal joint rivets 86.3 Working pressure of shell by rules 187 Size of manhole in end 16" x 12"

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Dighton Material steel Outside diameter 48"  
Length of plain part top Thickness of plates bottom 17" Description of longitudinal joint weld No. of strengthening rings 1

Working pressure of furnace by the rules 190 Combustion chamber plates: Material steel Thickness: Sides 1/2" Back 3/4" Top 1/2" Bottom 1/2"  
Pitch of stays to ditto: Sides 9 3/8 x 9 Back 10 1/2 x 9 Top 9 3/8 x 9 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 193

Material of stays steel Diameter at smallest part 2.31 Area supported by each stay 84.3 Working pressure by rules 213 End plates in steam space:  
Material steel Thickness 1 1/2" Pitch of stays 23 3/4 x 19 1/2 How are stays secured nuts & washers Working pressure by rules 182 Material of stays steel

Diameter at smallest part 8.29 Area supported by each stay 45.2 Working pressure by rules 191 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 183

Diameter of tubes 3 1/2 Pitch of tubes 4 3/4 x 4 3/4 Material of tube plates steel Thickness: Front 3/32 Back 3/4" Mean pitch of stays 10 1/2"  
Pitch across wide water spaces 14 1/4" Working pressures by rules 189 Girders to Chamber tops: Material steel Depth and

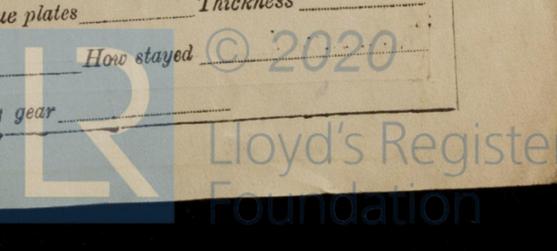
thickness of girder at centre 10 1/2" x 1 1/2" Length as per rule 35 1/2" Distance apart 9 3/8" Number and pitch of stays in each 3 @ 9"  
Working pressure by rules 200 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked

separately no 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 yes

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

W1291-0041



IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two each of main bearing, con. rod top end + bottom end bolts + nuts; one set (6) of coupling bolts + nuts; one set each of feed + bilge pump valves; assorted bolts and nuts: lion of various sizes and minor gear as per revised list attached to signed specification*

The foregoing is a correct description,

FOR BLAIR & CO., LIMITED

*Geo Mitchell*

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1918. Feb 22. 25. Mar 2. 7. 8. 11. 18. 20. 22. 25. Apr 2. 4. 5. 8. 10. 11. 12. 15. 17. 19. 22. 24. 26. 29. 30. May 3. 6. 8. 11. 15. 17. 22. 23. 24. 27. 29. 30. 31. June 4. 5. 7. 11. 12. 13. 14. 17. 18. 19. 20. 21. 22. 24. 26. 27. 28. July 5. 8. 11. 15. 17. 28. 28. 29. Aug 1. 2. 6. 7. 8. 12. 14. 15. 16. 27. 29. Sep 2. 3. 4. 6. 10. 11. 13. 16. 18.*  
Total No. of visits *83.*

Is the approved plan of main boiler forwarded herewith *yes*  
Plan Return for guidance in future cases

Dates of Examination of principal parts—Cylinders *11.5.18* Slides *15.5.18* Covers *15.5.18* Pistons *31.5.18* Rods *31.5.18*  
Connecting rods *8.7.18* Crank shaft *17.5.18* Thrust shaft *8.5.18* Tunnel shafts *17.5.18* Screw shaft *11.7.18* Propeller *11.7.18*  
Stern tube *11.6.18* Steam pipes tested *4/22/18* Engine and boiler seatings *18.6.18* Engines holding down bolts *12.8.18*  
Completion of pumping arrangements *13.9.18* Boilers fixed *6.9.18* Engines tried under steam *6.9.18*  
Main boiler safety valves adjusted *6.9.18* Thickness of adjusting washers *PB P-3/8 B P-5/16 B C.B S-5/16 P S-5/16 P S-5/16*  
Material of Crank shaft *Eng Steel* Identification Mark on Do. *7138* Material of Thrust shaft *Eng Steel* Identification Mark on Do. *7138*  
Material of Tunnel shafts *Eng Steel* Identification Marks on Do. *7138* Material of Screw shafts *Eng Steel* Identification Marks on Do. *7138*  
Material of Steam Pipes *Lap welded steel* Test pressure *540*

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  If so, state name of vessel *Standard "C"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under special survey in accordance with the Rules, the specification as amended. The materials and workmanship are sound and good. On completion the engine, boiler and auxiliaries were examined under full working conditions and found satisfactory.*

*The machinery is now in a good and efficient conditions and renders the vessel eligible in my opinion to have the notation of ~~S~~ L.M.C. 9.18 in the Register Book*

*This vessel is fitted with Electric Light and wireless*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.18.

*J. S. Morrison*  
*4-10-18*

The amount of Entry Fee ... £ *69-17-0* When applied for, *26/9/18*  
Special ... £ *69-17-0*  
Donkey Boiler Fee ... £ *1-0-0* When received, *2/10/18*  
Travelling Expenses (if any) £ *5-10-18*

Committee's Minute

Assigned *+ L.M.C. 9.18*

FRI. 4-OCT. 1918

MACHINERY CERTIFICATE WRITTEN



© 2020

Lloyd's Register Foundation

MIDDLEBURY