

# REPORT ON MACHINERY.

WED. 15. 1919

Received at London Office

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of writing Report 5<sup>th</sup> Dec 1919 When handed in at Local Office 8<sup>th</sup> Dec 1919 Port of Greenock  
 in Survey held at Port - Glasgow Date, First Survey 3<sup>rd</sup> Feb 1919 Last Survey 6<sup>th</sup> Dec 1919  
 Book. on the Single Screw Steel Steamship "SEA VICTORY" (Number of Visits 49) Tons { Gross 1937.34  
 Net 1002.05  
 Master H. D. Barnard Built at Port - Glasgow By whom built The Clyde Shipbuilding & Engineering Co. Ltd. When built 1919  
 Engines made at Port - Glasgow By whom made The Clyde Shipbuilding & Engineering Co. Ltd. when made 1919  
 Boilers made at Port - Glasgow By whom made The Clyde Shipbuilding & Engineering Co. Ltd. when made 1919  
 Registered Horse Power 210.7 Owners Dover Navigation Co. Ltd. Port belonging to Dover  
 Horse Power as per Section 28 273 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

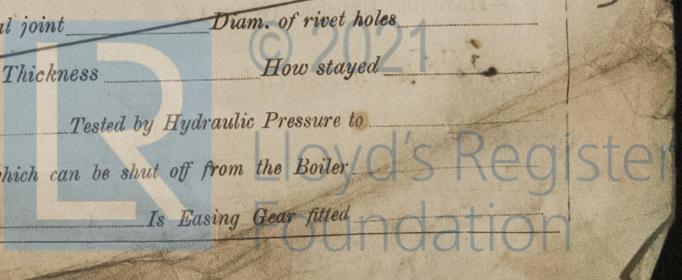
**PLANES, &c.**—Description of Engines Inverted triple expansion screw No. of Cylinders 3 No. of Cranks 3  
 of Cylinders 22", 36" + 61" Length of Stroke 39" Revs. per minute 75 Dia. of Screw shaft as per rule 12.24 Material of screw shaft Steel  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight  
 Is the propeller boss Yes If the liner is in more than one length are the joints burned No 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 Yes If two  
 shafts are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 58" 62"  
 Dia. of Tunnel shaft as per rule 10.87 Dia. of Crank shaft journals as per rule 11.44 Dia. of Crank pin 11 7/8" Size of Crank webs 21" x 7 1/2" Dia. of thrust shaft under  
 cranks 11 7/8" Dia. of screw 15'-0" Pitch of Screw 16'-0" No. of Blades 4 State whether moveable No Total surface 70 sq.  
 of Feed pumps 2 Diameter of ditto 6" Stroke 21" Can one be overhauled while the other is at work Yes  
 of Bilge pumps 2 Diameter of ditto 4" Stroke 21" Can one be overhauled while the other is at work Yes  
 of Donkey Engines Two Sizes of Pumps Ballast 8" x 9" x 8" Duplex No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room Three 3" dia. In Holds, &c. Two 3" in Nos 1 + 2 holds forward, +  
two in Nos 3 + 4 holds aft. Eight 3" in all.  
 of Bilge Injections 1 size 6" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size Yes 3"  
 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 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  
 How are pipes carried through the bunkers None How are they protected Yes  
 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 engine top platform

**BOILERS, &c.**—(Letter for record S) Manufacturers of Steel Steel Co. of Scotland Ltd.  
 Total Heating Surface of Boilers 4572 sq. ft. Is Forced Draft fitted No No. and Description of Boilers 2 Single ended  
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 6-10-19 No. of Certificate 1406  
 Can each boiler be worked separately Yes Area of fire grate in each boiler 64.5 sq. ft. No. and Description of Safety Valves to  
 each boiler 2, Spring loaded Area of each valve 7.06 sq. in. Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 9" Inside Mean dia. of boilers 15'-6" Length 10'-6" Material of shell plates Steel  
 Thickness 1 3/32" Range of tensile strength 29/32 tons Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams D.R.  
 Longitudinal seams DL St. T.R. Diameter of rivet holes in long. seams 1 3/8" Pitch of rivets 9 7/16" Lap of plates or width of butt straps 1-8 1/2"  
 Percentages of strength of longitudinal joint rivets 92-25 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"  
 Diameter of compensating ring 33 x 27 x 1 3/32" No. and Description of Furnaces in each boiler 3 Doughton's Material Steel Outside diameter 4'-3 1/4"  
 Length of plain part 19 3/32" Thickness of plates crown 19 3/32" Description of longitudinal joint Welded No. of strengthening rings Yes  
 Working pressure of furnace by the rules 180 lbs Combustion chamber plates: Material Steel Thickness: Sides 19 3/32" Back 19 3/32" Top 19 3/32" Bottom 3 1/2"  
 Diameter of stays to ditto: Sides 8 1/2" x 7 1/2" Back 8 1/2" x 8" Top 8 1/2" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 187 + 189 lbs  
 Material of stays Steel Area at smallest part 1.45 sq. ft. Area supported by each stay 63.75 sq. in. Working pressure by rules 182 lbs End plates in steam space:  
 Material Steel Thickness 1 3/32" Pitch of stays 18 1/2" x 15 1/2" How are stays secured DL nuts + washers Working pressure by rules 187 lbs Material of stays Steel  
 Area at smallest part 5.27 sq. ft. Area supported by each stay 282.15 sq. in. Working pressure by rules 190 lbs Material of Front plates at bottom Steel  
 Thickness 1 3/16" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 13 3/4" x 8" Working pressure of plate by rules 20 lbs  
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates Steel Thickness: Front 13/16" Back 2 1/32" Mean pitch of stays 9" x 8 3/4"  
 Working pressures by rules 184 lbs Girders to Chamber tops: Material Steel Depth and  
 thickness of girder at centre 8 3/4" x 1 1/2" Length as per rule 33" Distance apart 8 1/2" Number and pitch of stays in each 3, 7 1/2"  
 Working pressure by rules 195 lbs Steam dome: description of joint to shell Yes % of strength of joint Yes  
 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 \_\_\_\_\_  
 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 \_\_\_\_\_

Cylinder No. 459

W1346-0146



IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two connecting rod top end bolts nuts. Two connecting rod bottom end bolts nuts. Two main bearing bolts nuts. One set shaft coupling bolts nuts. One set bridge pump valves. One main boiler safety valve spring. One cast iron propeller. One set air pump valves. Two check valves. Half set of fire bars. A quantity of assorted bolts nuts, and iron of various sizes.

The foregoing is a correct description,

*W. J. M. M. M.*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - (1919) Feb. 7. 13. 18. 27. Mar. 10. 21. 28. April 1. 4. 16. 17. 21. 29. May 6. 9. 14. 20. 21. 27. June 2. 9. 11. 16. 27. During erection on board vessel - - - July 18. 23. 30. Aug 8. 15. 19. 27. 29. Sept 3. 9. 16. 19. 22. 24. Oct 1. 6. 8. 15. 28. Nov. 3. 11. 18. 19. 25. December 6. Total No. of visits 49. Is the approved plan of main boiler forwarded herewith yes.

Dates of Examination of principal parts—Cylinders 9-6-19. Slides 3-9-19. Covers 3-9-19. Pistons 3-9-19. Rods 3-9-19. Connecting rods 15-9-19. Crank shaft 15-8-19. Thrust shaft 27-6-19. Tunnel shafts 15-9-19. Screw shaft 8-10-19. Propeller 15-9-19. Stern tube 1-10-19. Steam pipes tested 19-11-19. Engine and boiler seatings 14-10-19. Engines holding down bolts 11-11-19. Completion of pumping arrangements 28-11-19. Boilers fixed 28-11-19. Engines tried under steam 28-11-19. Completion of fitting sea connections 1-10-19. Stern tube 6-10-19. Screw shaft and propeller 28-10-19. Main boiler safety valves adjusted 28-11-19. Thickness of adjusting washers Port Side 7/16", 5/8". St. Side 7/16", 5/8". Material of Crank shaft 1. Steel Identification Mark on Do. 469. Material of Thrust shaft 1. Steel Identification Mark on Do. 469. Material of Tunnel shafts 1. Steel Identification Marks on Do. 469. Material of Screw shafts 1. Steel Identification Marks on Do. 469. Material of Steam Pipes Wrought iron. Test pressure 600lbs.

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 no If so, state name of vessel ✓

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

The machinery & Boilers of this vessel have been constructed and fitted on board under special survey, and in accordance with the Society's Rules, and afterwards seen at work under full power on trial in the Frith, they are in my opinion in safe working condition and are respectfully submitted for the notification + L.M.C. 12.19 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 12.19

*W. J. M. M. M.*  
12/12/19. *ARR*

*J. W. D.*

The amount of Entry Fee ... £ 2 : 0 : When applied for,  
Special ... £ 33 : 13 : 9/12/19  
Donkey Boiler Fee ... £ : : When received,  
Travelling Expenses (if any) £ : : 31/12/19

*Graham Robertson*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 9-DEC 1919

Assigned + L.M.C. 12.19



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*8.12.19*

The Surveys are requested not to write on or below the space for Committee's Minutes.

10.12.19