

West Hpt report 11-15-58

Rpt. 4.

# REPORT ON MACHINERY

No. 27326  
SAT. SEP. - 7. 1918

Received at London Office

Date of writing Report

19

When handed in at Local Office

- 6 SEP 1918

Port of

*Sunderland*

in. Survey held at

*Sunderland*

Date, First Survey

*4 July 1917*

Last Survey

*16<sup>th</sup> Oct 1918*

(Number of Visits *4.5*)

g. Book.

on the *S/S WAR SIMOOM*

Master

Built at *W. Hartwood*

By whom built

*Dovine & Co Ltd (596)*

Tons

When built *1918*

Engines made at *Sunderland*

By whom made

*H. Clark & Co (1066)*

when made *1918*

Boilers made at *Sunderland*

By whom made

*H. Clark & Co (1066)*

when made *1918*

Registered Horse Power

Owners

*Shipping Controller*

Port belonging to

*London*

nom. Horse Power as per Section 28

*429*

Is Refrigerating Machinery fitted for cargo purposes

*no*

Is Electric Light fitted *yes*

ENGINES, &c.—Description of Engines

*Triple*

No. of Cylinders

*3*

No. of Cranks *3*

Dia. of Cylinders

*25, 41, 68*

Length of Stroke

*45*

Revs. per minute

*76*

Dia. of Screw shaft

*13.58*

Material of screw shaft

*Iron*

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

*yes*

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 *fit full length*

When two liners are fitted, is the shaft lapped or protected between the liners

Length of stern bush

*5-0"*

Dia. of Tunnel shaft

*12.4*

Dia. of Crank shaft journals

*13.03*

Dia. of Crank pin

*13.4*

Size of Crank webs

*8 7/8 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

*75.5*

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

*20"*

Can one be overhauled while the other is at work

*yes*

No. of Donkey Engines

*3*

Sizes of Pumps

*9 1/2 x 7 1/2, 1 1/2, 2 1/2*

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

*Four 3"*

In Holds, &c.

*Two 3" in each hold & two 2 1/2" in 1st hold.*

No. of Bilge Injections

*2*

sizes

*each 7 1/2"*

connected to condenser or to 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

*yes*

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

*yes*

Are they Valves or Cocks

*yes*

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*

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*

Is the Screw Shaft Tunnel watertight

*yes*

Is it fitted with a watertight door

*no*

worked from *across by trunk*

BOILERS, &c.—(Letter for record

*S*)

Manufacturers of Steel

*Spencer & Sons*

Total Heating Surface of Boilers

*1321*

Is Forced Draft fitted

*yes*

No. and Description of Boilers

*3 Single Ended*

Working Pressure

*150 lbs*

Tested by hydraulic pressure to

*360 lbs*

Date of test

*8.7.18*

No. of Certificate

*3484*

Can each boiler be worked separately

*yes*

Area of fire grate in each boiler

*52*

No. and Description of Safety Valves to

each boiler

*2 Spring valves*

Area of each valve

*8.29 sq"*

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 *10" between boilers*

Thickness

*1 1/2"*

Range of tensile strength

*28 3/4 to 33*

Are the shell plates welded or flanged

*no*

Descrip. of riveting: cir. seams

*lap & butt*

long. seams

*lap & butt*

Diameter of rivet holes in long. seams

*1 7/8"*

Pitch of rivets

*8 1/2"*

Temp. of plates or width of butt straps

*18"*

Per centages of strength of longitudinal joint

*86*

Working pressure of shell by rules

*187 lbs*

Size of manhole in shell

*16 x 12"*

Size of compensating ring

*flange in*

No. and Description of Furnaces in each boiler

*3 Single*

Material

*S*

Outside diameter

*3-7"*

Length of plain part

*top 3 1/2"*

Thickness of plates

*bottom 3 3/4"*

Description of longitudinal joint

*welded*

No. of strengthening rings

*—*

Working pressure of furnace by the rules

*190*

Combustion chamber plates: Material

*S*

Thickness: Sides

*1/4"*

Back

*3/4"*

Top

*1/2"*

Bottom

*1/2"*

Pitch of stays to ditto: Sides

*9 x 9 3/8"*

Back

*10 3/8 x 9 1/2"*

Top

*9 x 9 3/8"*

If stays are fitted with nuts or riveted heads

*inside*

Working pressure by rules

*193*

Material of stays

*S*

Area at smallest part

*2.03 sq"*

Area supported by each stay

*84.4 sq"*

Working pressure by rules

*210*

End plates in steam space:

Material

*S*

Thickness

*1 1/2"*

Pitch of stays

*25 3/4 x 19 1/2"*

How are stays secured

*nut & wash.*

Working pressure by rules

*181*

Material of stays

*S*

Area at smallest part

*8.29 sq"*

Area supported by each stay

*463 sq"*

Working pressure by rules

*186*

Material of Front plates at bottom

*S*

Thickness

*3 1/2"*

Material of Lower back plate

*S*

Thickness

*2 1/2"*

Greatest pitch of stays

*13 1/2 x 9 10 1/2"*

Working pressure of plate by rules

*186*

Diameter of tubes

*2 3/4"*

Pitch of tubes

*4 x 4"*

Material of tube plates

*S*

Thickness: Front

*3 1/2"*

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

*S*

IS A DONKEY BOILER FITTED?

NO

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two top end, two bottom end connecting rod bolts and nuts, two main bearing bolts, one set coupling bolts, one set fuel & bilge pumps valves, assorted bolts and nuts, Iron of various sizes, one propeller.

The foregoing is a correct description,

FOR GEORGE CLARK LIMITED,

James C. Clark

Manufacturer.

Dates of Survey while building: During progress of work in shops - 1917. July 4. Nov 5. 29. 30. Dec 21. Jan 25. Feb 5. 18. 20. Mar 29. Apr 3. 4. 10. 15. 18. 22. 25. May 6. 14. 27. During erection on board vessel - at West Npt: 1918. July 23. Aug 1. Sep 17. 18. 19. 30. Oct 4. 8. 10. 16. Total No. of visits 45.

Is the approved plan of main boiler forwarded herewith Yes

Is the approved plan of main boiler forwarded herewith " " " donkey " " "

Dates of Examination of principal parts - Cylinders 29.7.18 Slides 16.7.18 Covers 16.7.18 Pistons 29.7.18 Rods 13.6.18 Connecting rods 16.7.18 Crank shaft 29.7.18 Thrust shaft 24.6.18 Tunnel shafts 24.6.18 Screw shaft 16.7.18 Propeller 16.7.18 Stern tube 7.8.18 Steam pipes tested 21.8, 24.8.18 Engine and boiler seatings 15.8.18 Engines holding down bolts 15.8.18 Completion of pumping arrangements 30.8.18 Boilers fixed 30.8.18 Engines tried under steam 30.8.18 Completion of fitting sea connections 2.9.18 Stern tube 15.8.18 Screw shaft and propeller 15.8.18 Main boiler safety valves adjusted 30.8.18 Thickness of adjusting washers 5/16, P 1/2 S 3/4, Lute O, P 3/4 S 3/4, P 5/16, P 5/16 S 3/4. Material of Crank shaft Iron Identification Mark on Do. 1066 GAH Material of Thrust shaft Steel Identification Mark on Do. 1066 GAH Material of Tunnel shafts Iron Identification Marks on Do. 1066 GAH Material of Screw shafts Iron Identification Marks on Do. 1066 GAH Material of Steam Pipes Iron Test pressure 540 lbs

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 Type.

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

The machinery of this vessel has been built under special survey, the materials and workmanship are sound and good and under the vessel sheets in our opinion to have merit of + L.M.C. 10.18.

The vessel has now returned to the builders yard when the machinery survey will be completed by the fitting of hold fastenings and electric light installation.

The Hold & Ex-Boiler pipe meters & their operating gear have been fitted & the electric lighting installation completed & worked well.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 10.18 F.D.

J.C. 18 29-10-18

W. H. ... Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ : : When applied for, Special ... £ 69.5.0 15/10/18 1918. Trans. Sld. Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 18.10.19

Committee's Minute

Assigned

FRI. 1-NOV. 1918

+ L.M.C. 10.18

L.D.

FRI. 13 DEC. 1918

TUE. 31 DEC. 1918

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MACHINERY CERTIFICATE WRITTEN

