

REPORT ON MACHINERY.

No. 27235

Received at London office

THU. 16 MAY. 1918

of writing Report 7.5.18 when handed in at Local Office 15 MAY 1918 Port of Sunderland

in Survey held at Sunderland Date, First Survey 18. May 17 Last Survey 3 May 1918

Book. III on the new steel S/S "WAR WAGER" (Number of Visits) Gross 5770 5230 Net 3170 3186

ter Hay Built at Sunderland By whom built J. & S. Thompson & Sons Ltd. When built 1918

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istered Horse Power Owners The Shipping Controller Port belonging to London

re. Horse Power as per Section 28 517 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

INES, &c.—Description of Engines Triple expansion No. of Cylinders 3 No. of Cranks 3

of Cylinders 21-AA-73 Length of Stroke 48 Revs. per minute 75 Dia. of Screw shaft 14.39 as per rule 15.5 as fitted Material of screw shaft 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 - If the liner does not fit tightly at the part

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

rs are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-0 1/2"

u. of Tunnel shaft as per rule 13.32" Dia. of Crank shaft journals as per rule 14" Dia. of Crank pin 14 1/2" Size of Crank webs 22 1/2" Dia. of thrust shaft under

bars 14 3/4" Dia. of screw 17-6" Pitch of Screw 16-6" No. of Blades 4 State whether moveable no Total surface 102 sq ft

of Feed pumps 2 Diameter of ditto 4" Stroke 2'-0" Can one be overhauled while the other is at work yes

of Bilge pumps 2 Diameter of ditto 4" Stroke 2'-0" Can one be overhauled while the other is at work yes

of Donkey Engines 3 Sizes of Pumps 20" & 17" & 10" & 14" & 24" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 4 @ 3 1/2" In Holds, &c. Pump room - 2 @ 3" long hold (aft)

@ 3" Tunnel well 10 3/4" brass bunker, - 2 @ 3 1/2"

of Bilge Injections 1 size 9" Connected to condenser, or to circulating pump B.P. Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"

re 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

re all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both

re 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

re 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

hat pipes are carried through the bunkers cargo and fuel pipes How are they protected wood casing

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

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

ates of examination of completion of fitting of Sea Connections 25-2-18 of Stern Tube 25-2-18 Screw shaft and Propeller 11-3-18

the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door no worked from access by trunk from deck

ILERS, &c.—(Letter for record S) Manufacturers of Steel John Spencer & Sons Ltd.

total Heating Surface of Boilers 7668 sq ft Is Forced Draft fitted yes No. and Description of Boilers three single ended marine

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 25-9-17 No. of Certificate 3430

Can each boiler be worked separately yes Area of fire grate in each boiler 63 sq ft No. and Description of Safety Valves to

each boiler two direct spring Area of each valve 9.6 sq in Pressure to which they are adjusted 185 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 5'-0" Mean dia. of boilers 15'-6" Length 11'-8 1/2" Material of shell plates steel

Thickness 1 1/2" Range of tensile strength 29-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR

ong. seams DR B.S. TR Diameter of rivet holes in long. seams 1 5/16" Pitch of rivets 9 1/8" Lap of plates or width of butt straps 1-7 1/2"

Per centages of strength of longitudinal joint rivets 88.2 Working pressure of shell by rules 182 Size of manhole in shell 16" x 12"

Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 4'-2 3/16"

Length of plain part top 19" Thickness of plates crown 32" Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 188 Combustion chamber plates: Material steel Thickness: Sides 23/32" Back 1/16" Top 23/32" Bottom 23/32"

Pitch of stays to ditto: Sides 10 5/8" x 9 1/4" Back 10 1/4" x 8 3/4" Top 10 5/8" x 9 1/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180

Material of stays steel Diameter at smallest part 2.36" Area supported by each stay 98.5 Working pressure by rules 216 End plates in steam space

Material steel Thickness 1 1/2" Pitch of stays 21 1/4" - 21 3/4" How are stays secured ON & Wash Working pressure by rules 180 Material of stays steel

Diameter at smallest part 8.290" Area supported by each stay 4730" Working pressure by rules 182 Material of Front plates at bottom steel

Thickness 3 1/2" Material of Lower back plate steel Thickness 21/32" Greatest pitch of stays 13 5/8" x 8 3/4" Working pressure of plate by rules 188

Diameter of tubes 2 3/4" Pitch of tubes 4 x 3 1/8" Material of tube plates steel Thickness: Front 31/32" Back 3/4" Mean pitch of stays 11 5/8" x 8"

Pitch across wide water spaces 13 5/8" Working pressures by rules 181 Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 10" x 1 3/4" Length as per rule 35 9/16" Distance apart 10 5/8" Number and pitch of stays in each 3 @ 9 1/4"

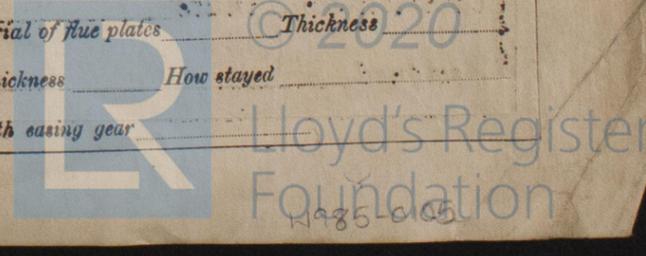
Working pressure by rules 188 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked

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



IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :- Two connecting rod top and bottom end bolts and nuts; two main bearing bolts; one set of coupling bolts; one set of feed and bilge pump valves; iron and bolts of various sizes; one propeller.

The foregoing is a correct description.

W. D. New Manufacturer.

Dates of Survey while building { During progress of work in shops -- } 1917. May 18, 21, 23, June 19, 21, 25, July 10, 13, 24, 25, 30, Aug. 2, 10, 13, 25, Sep. 7, 12, 25, 27, Oct. 9, 11, 16, 23, Nov. 2, 7
{ During erection on board vessel -- } 2, 13, 14, 16, 21, 27, Dec. 13, Jan. 4, 16, 18, 22, 23, Feb. 12, 25, Mar. 11, 21, 27, Apr. 4, 5, 25, 29, 30, May 2, 3
Total No. of visits (49) Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts - Cylinders 13-11-17 Slides 7-11-17 Covers 7-11-17 Pistons 8-11-17 Rods 30-7-17
Connecting rods 30-7-17 Crank shaft 27-11-17 Thrust shaft 13-12-17 Tunnel shafts 27-11-17 Screw shaft 16-1-18 Propeller 13-12-17
Stern tube 22-1-18 Steam pipes tested 23-3-18 Engine and boiler seatings 25-2-18 Engines holding down bolts 4-4-18
Completion of pumping arrangements 2-5-18 Boilers fixed 27-3-18 Engines tried under steam 5-4-18
Main boiler safety valves adjusted 5-4-18 Thickness of adjusting washers: Row 11 P 1 1/2" S 1 1/2"; Row 12 P 1 1/2" S 1 1/2"; Row 13 P 1 1/2" S 1 1/2"

Material of Crank shaft steel Identification Mark on Do 2991N.W. Material of Thrust shaft steel Identification Mark on Do 2991N.W.
Material of Tunnel shafts steel Identification Marks on Do 2991N.W. Material of Screw shafts steel Identification Marks on Do 2991N.W.
Material of Steam Pipes lap welded wrought iron Test pressure 540 lbs per sq in

Is an installation fitted for burning oil fuel yes Is the flash point of the oil to be used over 150°F. yes
Have the requirements of Section 49 of the Rules been complied with yes

Is this machinery duplicate of a previous case yes If so, state name of vessel Standard A type - counter order

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

The materials and workmanship are good.
The machinery has been constructed under special survey and is eligible in my opinion for classification and the records + LMC 5.18. "Fitted for oil fuel 5.18. F.P. above 150°F"

It is submitted that this vessel is eligible for THE RECORD + LMC 5.18 F.D. Fitted for oil fuel 5.18 F.P. above 150°F.

J.W.D. 21/5/18

The amount of Entry Fee ... £ 9 : - :
Special ... £ 137 : 11 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 7.5.18
When received, 29.5.18

J. D. Davis
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute WED. 22. MAY. 1918
Assigned J. + L.M.C 5.18. J.D.
Fitted for Oil Fuel 5.18 F.P. above 150°F



SUNDERLAND.

Certificates (if required) to be sent to the Registrar or to the Registrar's Office at the address given in the Committee's Minute.