

REPORT ON MACHINERY.

No.

RECORDED NEW YORK Dec. 31, 1917.

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Date of writing Report 27 Dec 1917 When handed in at Local Office 28 Dec 1917 Port of Detroit Mich
 No. in Survey held at Detroit Mich Date, First Survey 18 Sept 1917 Last Survey 27 Dec 1917
 Reg. Book. on the Steel Screw Steamer "War Martin" (Number of Visits 24)

Master Built at Wyandotte Mich By whom built Detroit Shipbuilding Co. (No 214) Tons Gross 1917
 Engines made at Detroit Mich By whom made Detroit Shipbuilding Co. (No 214) when made 1917
 Boilers made at Detroit Mich By whom made Detroit Shipbuilding Co. (No 214) when made 1917
 Registered Horse Power Owners M. Shipping Board Emergency Fleet Corporation Port belonging to Washington
 Com. Horse Power as per Section 28 274 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 20" x 33" x 54" Length of Stroke 40" Revs. per minute 80 Dia. of Screw shaft as per rule 11.34 Material of screw shaft as fitted 11.76
 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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 51"
 Dia. of Tunnel shaft as per rule 10.3 Dia. of Crank shaft journals as per rule 10.81 Dia. of Crank pin 11" Size of Crank webs 21x7" Dia. of thrust shaft under flange 11" Dia. of screw 13-3" Pitch of Screw 13-6" No. of Blades 4 State whether moveable No Total surface 534
 No. of Feed pumps 2 Diameter of ditto 10x7x12 Stroke Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 32 Stroke 20 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines Two Sizes of Pumps 12x8x12 10x12x12 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room Two 3" dia In Holds, &c. No 1 & 2 holds divided by a W.T. Bulkhead. Fitted with sluice valves with rods led to deck. 2-4" dia valves. 2-3" suction in No 2 hold. 2-3" in No 3 hold. 1-3" in No 4 hold. 1-3" in Tunnel.
 No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.P. 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 No
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 Are they fired 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
 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 Upper deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Carnegie Steel
 Total Heating Surface of Boilers 5246 Is Forced Draft fitted No No. and Description of Boilers Two Cyl. multitubular S.E.
 Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 26 & 28 Dec 1917 No. of Certificate 80781
 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 Spring loaded Area of each valve 7.06 sq in Pressure to which they are adjusted 183 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers on woodwork 6" dia. of boilers 14-6" Length 11-2 1/2" Material of shell plates S
 Thickness 1/4" Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.S.R.
 Long. seams T.R.S.R. Diameter of rivet holes in long. seams 15/16" Pitch of rivets 8 1/2" Length of plates or width of butt straps 19 3/4"
 Centages of strength of longitudinal joint rivets 94.7 plate 84.6 Working pressure of shell by rules 192 lbs Size of manhole in shell 15" x 11"
 No. of compensating ring 33x33x1/4 No. and Description of Furnaces in each boiler One Corrugated Material S Outside diameter 46"
 Length of plain part top bottom Thickness of plates crown 5/8" bottom 5/8" Description of longitudinal joint Weld No. of strengthening rings None
 Working pressure of furnace by the rules 192 Combustion chamber plates: Material S Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"
 Length of stays to ditto: Sides 7 1/2 x 7 1/2 Back 7 1/2 x 7 1/2 Top 8 x 7 1/2 If stays are fitted with nuts or riveted heads R.H. Working pressure by rules 181 lbs
 Material of stays S Area at smallest part 126 sq in Area supported by each stay 55 sq in Working pressure by rules 182 End plates in steam space: Material S Thickness 1 3/32" Pitch of stays 17 x 15 3/4" How are stays secured S. hats Working pressure by rules 199 Material of stays S
 Area at smallest part 541 sq in Area supported by each stay 266 sq in Working pressure by rules 210 Material of Front plates at bottom S
 Thickness 13/16" Material of Lower back plate S Thickness 5/8" Greatest pitch of stays 12 1/2 x 6 1/2 Working pressure of plate by rules 266
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates S Thickness: Front 3/4" Back 3/4" Mean pitch of stays 10 7/16"
 Width across wide water spaces 13 3/4 + dbl Working pressures by rules 183 Girders to Chamber tops: Material S Depth and thickness of girder at centre 8 5/8 + 1 1/2 Length as per rule 30 Distance apart 8 Number and pitch of stays in each Stay 7 1/2"
 Working pressure by rules 220 Steam dome: description of joint to shell Yes % of strength of joint Yes
 Material Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes
 Pitch of rivets Yes Working pressure of shell by rules Yes Crown plates Yes Thickness Yes How stayed Yes

SUPERHEATER. Type Yes Date of Approval of Plan Yes Tested by Hydraulic Pressure to 220
 No. of Test Yes Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 No. of Safety Valve Yes Pressure to which each is adjusted Yes Is Easing Gear fitted Yes

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 1 Shead of top & bottom end, main bearing & coupling bolts
1 shead of feed, bilge & air pump valves, 25 condenser tubes, 12 ferrules, 10 boiler tubes, 1
cast iron propeller, 1 set of coach springs for I.P. & L.P. pistons. Assorted nuts, bolts
& rivs.

The foregoing is a correct description,

DETROIT SHIPBUILDING CO.

J. J. Brown. Assistant Gen. Supt.

Manufacturer.

Dates of Survey while building

During progress of work in shops --
During erection on board vessel --
Total No. of visits

Sept. 29 Oct 4-6-11-13-17-22-25-31. Nov 5-7-8-13-15-22-28-
Dec 28-15-21-27.
24

Is the approved plan of main boiler forwarded herewith

No

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 20-11-17 Slides 22-11-17 Covers 31-10-17 Pistons 22-11-17 Rods 13-11-17
Connecting rods 22-11-17 Crank shaft 31-10-17 Thrust shaft 22-10-17 Tunnel shafts 4-10-17 Screw shaft 17-10-17 Propeller 13-11-17
Stern tube 7-11-17 Steam pipes tested 15-12-17 Engine and boiler seatings 22-11-17 Engines holding down bolts 15-12-17
Completion of pumping arrangements 21-12-17 Boilers fixed 15-12-17 Engines tried under steam 21-12-17
Completion of fitting sea connections 22-11-17 Stern tube 22-11-17 Screw shaft and propeller 22-11-17
Main boiler safety valves adjusted 27-12-17 Thickness of adjusting washers PORT. 3/32 F.V. 3/32 A.V. STAR 30 7/32 F.V. 3/32 A.V.
Material of Crank shaft S Identification Mark on Do. NO LLOYD'S J.E.S. Material of Thrust shaft S Identification Mark on Do. NO LLOYD'S J.E.S.
Material of Tunnel shafts S Identification Marks on Do. -- Material of Screw shafts S Identification Marks on Do. --
Material of Steam Pipes Seamless Steel 1/2" & 1/32 thick 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.

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

"War Fox."

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

These engines & boilers have been built under special survey and in accordance with the Rules. The materials & workmanship are sound & good.
They have been fitted on board in an efficient manner, tried under steam and found satisfactory and are eligible in my opinion to be classed in the Register Book with record of L.M.C. 12-17.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 12.17.

J.W.D.
J.M. 29/1/18.

The amount of Entry Fee ... £ \$10:00 :
Special ... £ \$10:00 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ \$2:00 :
When applied for, 19...
When received, 4/1/18

J. J. Selles.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York J. 18 1918

Assigned + L.M.C. 12.17



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Foundation