

REPORT ON MACHINERY.

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No. in Survey held at Bath, Me. Date, First Survey June 5. 1920 Last Survey October 9 1920

Reg. Book, on the Steel Screw steamer "HARVESTER" (Number of Visits 24)

Master W. G. Stevens Built at Bath, Me. By whom built The Texas Steamship Co. When built 1920

Engines made at Buffalo, N. Y. By whom made H. G. Grant, Co. when made 1920

Boilers made at Bath, Me. By whom made Bath Iron Works. when made 1920

Registered Horse Power _____ Owners The Texas Co. Port belonging to New York.

Nom. Horse Power as per Section 28 549 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 26 1/2 x 44 x 74 Length of Stroke 51 Revs. per minute 75 Dia. of Screw shaft 14 3/4 Material of screw shaft O.H. 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 in 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 7-3/4

Dia. of Tunnel shaft 14 3/4 Dia. of Crank shaft journals 14 3/4 Dia. of Crank pin 14 3/4 Size of Crank webs 28 x 10 Dia. of thrust shaft under collars 14 3/4 Dia. of screw 17-6 Pitch of Screw 17-6 No. of Blades 4 State whether moveable Yes Total surface 100 sq. feet

No. of Feed pumps two Diameter of ditto 2 1/2 Stroke 26 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 5 1/2 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 12x10x12, 6x6x6 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 4-3 1/2, 1-4 1/2 In Holds, &c. Oil cargo pumping system

No. of Bilge Injections 1 sizes 10" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 4"

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 Valves

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

What pipes are carried through the bunkers 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 Yes

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Lubens Steel Co. Coatsville Pa.

Total Heating Surface of Boilers 7978.8 Is Forced Draft fitted Yes No. and Description of Boilers 3 Scotch Single ended

Working Pressure 190 lbs Tested by hydraulic pressure to 285 Date of test 16.9.20 No. of Certificate 40, 41, 42

Can each boiler be worked separately Yes Area of fire grate in each boiler oil fuel No. and Description of Safety Valves to each boiler 1 Spring loaded 3 1/2" tur Area of each valve 19.24 Pressure to which they are adjusted 195 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork about 30" Mean dia. of boilers 15-3 Length 11-0" Material of shell plates O.H. Steel

Thickness 1 1/2" Range of tensile strength 60000 min Are the shell plates welded or flanged flanged Descrip. of riveting: cir. seams double long. seams 3 ply twisted Diameter of rivet holes in long. seams 1 7/8" Pitch of rivets 3 3/4 + 8 1/2" Top of plates or width of butt straps 20 1/2"

Per centages of strength of longitudinal joint 97.84 Working pressure of shell by rules 202.5 Size of manhole in shell 12 x 16"

Size of compensating ring 33 3/8 x 37 3/8 No. and Description of Furnaces in each boiler 3 Corrugated Material O.H. Steel Outside diameter 4-1"

Length of plain part top 10 1/2" Thickness of plates bottom 10 1/2" Description of longitudinal joint welded No. of strengthening rings 9

Working pressure of furnace by the rules 205.5 Combustion chamber plates: Material O.H. Steel Thickness: Sides 7/8" Back 5/8" Top 5/8" Bottom 7/8"

Pitch of stays to ditto: Sides 6 1/2" Back 7 1/8" Top 8 1/2" If stays are fitted with nuts or riveted heads both Working pressure by rules 202.5

Material of stays Steel Area at smallest part 1.755 Area supported by each stay 52 Working pressure by rules 202.5 End plates in steam space: Material O.H. Steel Thickness 1 1/2" Pitch of stays 16 3/4" How are stays secured nuts Working pressure by rules 244.2 Material of stays Steel

Area at smallest part 6.492 Area supported by each stay 276 Working pressure by rules 244.2 Material of Front plates at bottom O.H. Steel Thickness 1 1/2" Material of Lower back plate O.H. Steel Thickness 1 1/2" Greatest pitch of stays 16 3/4" Working pressure of plate by rules 253

Diameter of tubes 2 1/2" Pitch of tubes 3 1/2 + 3 5/8" Material of tube plates Steel Thickness: Front 1 1/8" Back 1 1/8" Mean pitch of stays 7 1/8"

Pitch across wide water spaces 13 1/2" Working pressures by rules 285 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 1/2 x 7/8" dbh Length as per rule 3'-0" Distance apart 8 centres Number and pitch of stays in each 4-6 1/2"

Working pressure by rules 237.2 Steam dome: description of joint to shell Yes % of strength of joint Yes

Diameter 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 _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____

Date of Test _____ 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 _____

