

Rpt. 4.

# REPORT ON MACHINERY.

No. 45.

Received at London Office

TUE APR. 6 1920

Date of writing Report June 2<sup>nd</sup> 1919 When handed in at Local Office 19 Port of                     

No. in Survey held at Reg. Book.                      Date, First Survey                      Last Survey 19  
(Number of Visits                     )

Master                      Built at BATH MAIN By whom built TEXAS S.B. CO Hull 21 When built                       
Tons <sup>Gross</sup>                      <sub>Net</sub>                     

Engines made at BUFFALO N.Y. By whom made H.G. TROUT. CO. (EN 64) when made 1919

Boilers made at                      By whom made                      when made                     

Registered Horse Power                      Owners                      Port belonging to                     

Nom. Horse Power as per Section 28                      Is Refrigerating Machinery fitted for cargo purposes                      Is Electric Light fitted                     

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 <sup>as per rule</sup> 14.71" Material of O.H.S.  
<sub>as fitted</sub> 15.5" screw shaft  
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 NO JOINTS 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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 63.75"

Dia. of Tunnel shaft <sup>as per rule</sup> ✓ Dia. of Crank shaft journals <sup>as per rule</sup> 14.44" Dia. of Crank pin 14.75" Size of Crank webs 28" x 10" Dia. of thrust shaft under collars 14.75" Dia. of screw 17.9" Pitch of Screw 18' 0" No. of Blades 4 State whether moveable NO Total surface 87.50  
<sub>as fitted</sub> ✓ <sub>as fitted</sub> 14.75"

No. of Feed pumps 2 Diameter of ditto 5 1/2" Stroke 24" 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                      Sizes of Pumps                      No. and size of Suctions connected to both Bilge and Donkey pumps                     

In Engine Room                      In Holds, &c.                     

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

Are all the bilge suction pipes fitted with roses                      Are the roses in Engine room always accessible                      Are the sluices on Engine room bulkheads always accessible                     

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

Do. Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates                      Are the Discharge Pipes above or below the deep water line                     

Do. Are they each fitted with a Discharge Valve always accessible on the plating of the vessel                      Are the Blow Off Cocks fitted with a spigot and brass covering plate                     

What pipes are carried through the bunkers                      How are they protected                     

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

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

Is the Screw Shaft Tunnel watertight                      Is it fitted with a watertight door                      worked from                     

## OILERS, &c.—(Letter for record                     ) Manufacturers of Steel

Total Heating Surface of Boilers                      Is Forced Draft fitted                      No. and Description of Boilers                     

Working Pressure                      Tested by hydraulic pressure to                      Date of test                      No. of Certificate                     

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

each boiler                      Area of each valve                      Pressure to which they are adjusted                      Are they fitted with easing gear                     

Smallest distance between boilers or uptakes and bunkers or woodwork                      Mean dia. of boilers                      Length                      Material of shell plates                     

Thickness                      Range of tensile strength                      Are the shell plates welded or flanged                      Descrip. of riveting: cir. seams                     

long. seams                      Diameter of rivet holes in long. seams                      Pitch of rivets                      Lap of plates or width of butt straps                     

Per centages of strength of longitudinal joint                      Working pressure of shell by rules                      Size of manhole in shell                     

Size of compensating ring                      No. and Description of Furnaces in each boiler                      Material                      Outside diameter                     

Length of plain part <sup>top</sup>                      Thickness of plates <sup>crow</sup>                      Description of longitudinal joint                      No. of strengthening rings                       
<sub>bottom</sub>                      <sub>bottom</sub>                     

Working pressure of furnace by the rules                      Combustion chamber plates: Material                      Thickness: Sides                      Back                      Top                      Bottom                     

Pitch of stays to ditto: Sides                      Back                      Top                      If stays are fitted with nuts or riveted heads                      Working pressure by rules                     

Material of stays                      Area at smallest part                      Area supported by each stay                      Working pressure by rules                      End plates in steam space:                     

Material                      Thickness                      Pitch of stays                      How are stays secured                      Working pressure by rules                      Material of stays                     

Area at smallest part                      Area supported by each stay                      Working pressure by rules                      Material of Front plates at bottom                     

Thickness                      Material of Lower back plate                      Thickness                      Greatest pitch of stays                      Working pressure of plate by rules                     

Diameter of tubes                      Pitch of tubes                      Material of tube plates                      Thickness: Front                      Back                      Mean pitch of stays                     

Pitch across wide water spaces                      Working pressures by rules                      Girders to Chamber tops: Material                      Depth and                     

Thickness of girder at centre                      Length as per rule                      Distance apart                      Number and pitch of stays in each                     

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

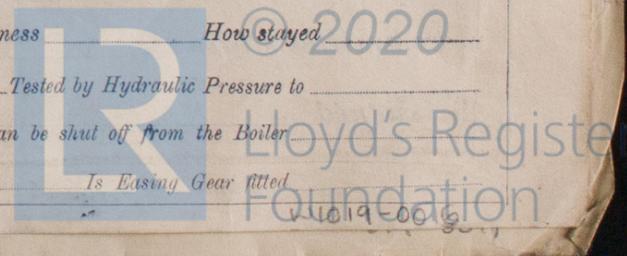
Diameter                      Thickness of shell plates                      Material                      Description of longitudinal joint                      Diam. of rivet holes                     

Pitch of rivets                      Working pressure of shell by rules                      Crown plates                      Thickness                      How stayed                     

PERHEATER. Type                      Date of Approval of Plan                      Tested by Hydraulic Pressure to                     

ate 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                     



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

B. G. Trout Co.

Manufacturer.

Dates of Survey while building: 1918 SEP 27, OCT 1-12-18-29, NOV 2-14-21-29, DEC 6-19, JAN 10-19-29, 30 FEB 8, MAR 7-29, APR 2-17, MAY 6-13-20-28, 1919

Dates of Examination of principal parts: Cylinders 17-20 Nov, Slides 9-3-19, Covers 17-4-19, Pistons 7-3-19, Rods 29-3-19, Connecting rods 29-3-19, Crank shaft 7-3-19, Thrust shaft 6-5-19, Tunnel shafts, Screw shaft, Propeller 30-1-19, Stern tube, Steam pipes tested, Engine and boiler seatings, Engines holding down bolts, Completion of pumping arrangements, Boilers fixed, Engines tried under steam, Completion of fitting sea connections, Stern tube, Screw shaft and propeller, Main boiler safety valves adjusted, Thickness of adjusting washers, Material of Crank shaft O.H. STEEL, Identification Mark on Do. N064, 5-19 F.H.O., Material of Thrust shaft O.H.S., Identification Mark on Do. N030, 7-10-18, Material of Tunnel shafts, Identification Marks on Do., Material of Screw shafts, Identification Marks on Do., Material of Steam Pipes, Test pressure, Is an installation fitted for burning oil fuel, 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 YES. If so, state name of vessel ENG. N063.

General Remarks (State quality of workmanship, opinions as to class, &c. These engines have been constructed under special survey. The materials and workmanship employed in their manufacture are sound and good:— They have been forwarded to Bath main, to be fitted on board of Hull No 21 being built by the Texas Steamship Co.

The amount of Entry Fee ... \$ 86.90 Special FORGINGS. Donkey Boiler Fee ... \$ 40.00 Travelling Expenses (if any) £

When applied for, 1919, When received, 11/3/20, J. W. Zveddell, J. H. Osborn, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned

