

REPORT ON BOILERS.

No. 30858

Received at London Office FRI. 27. DEC. 1918

Date of writing Report 19-12-18 191 When handed in at Local Office 24/12/18 Port of Hull
 No. in Survey held at Hull Date, First Survey 31-12-17 Last Survey 18-12-18 191
 Reg. Book. on the turn steel screw tug Spray (Star type tug) (Number of Visits) Gross Tons 507
 Net Tons 55
 Master Built at Hessle By whom built Livingstone & Cooper When built 1918-12
 Engines made at Birmingham By whom made Belliss & Howden Ltd When made 1918-12
 Boilers made at Hull By whom made Earle's Ltd When made 1918-12
 Registered Horse Power Owners British Admiralty Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

J. Spencer Hons

Letter for record S Total Heating Surface of Boilers 42164 ft² Is forced draft fitted no No. and Description of Boilers Two single ended Working Pressure 160 Tested by hydraulic pressure to 320 Date of test 19-7-18
 No. of Certificate A 3307 Can each boiler be worked separately yes Area of fire grate in each boiler 639 ft² No. and Description of Safety valves to each boiler two spring loaded Area of each valve 7.07 in² Pressure to which they are adjusted 165 lbs
 Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓
 Smallest distance between boilers 14" and bunkers 14" dia. of boilers 168" Length 10'-0"
 Material of shell plates steel Thickness 1 3/32" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no
 Description of riveting: cir. seams double long. seams P.R. & B.S. Diameter of rivet holes in long. seams 1 1/8" Pitch of rivets 7 3/4"
 Width of butt straps 16 1/2" Per centages of strength of longitudinal joint rivets 92 Working pressure of shell by rules 85.4
 No. of manhole in shell 162 Size of manhole in shell 19" x 15" Size of compensating ring 9" x 1 1/2" No. and Description of Furnaces in each boiler Three Morrison Material steel Outside diameter 46 1/2" Length of plain part ✓ Thickness of plates 3 1/2"
 Description of longitudinal joint welded No. of strengthening rings ✓ Working pressure of furnace by the rules 163 Combustion chamber plates: Material steel Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 7/8" Pitch of stays to ditto: Sides 9" x 8" Back 9 1/2" x 8"
 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 164 Material of stays steel Area at smallest part 1.48 in² Area supported by each stay 74 in² Working pressure by rules 160 End plates in steam space: Material steel Thickness 1 3/32"
 How are stays secured 8, 7, 1 Working pressure by rules 165 Material of stays steel Area at smallest part 5.18 in²
 Area supported by each stay 328 in² Working pressure by rules 167 Material of Front plates at bottom steel Thickness 27/32" Material of cover back plate steel Thickness 27/32" Greatest pitch of stays 14" x 8 3/4" Working pressure of plate by rules 160 Diameter of tubes 3"
 Material of tube plates steel Thickness: Front 27/32" Back 27/32" Mean pitch of stays 10 1/2" Pitch across wide spaces 13" Working pressures by rules 162 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 7 1/2" x 1 1/2" Length as per rule 28.125 Distance apart 8 1/2" Number and pitch of Stays in each Two 8 1/2"
 Working pressure by rules 166 Steam dome: description of joint to shell ✓ % of strength of joint ✓

Superheater. Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ✓
 Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓

FOR EARLE'S
 The foregoing is a correct description,
 SHIPBUILDING & ENGINEERING CO. (LIMITED)
W. H. H. H. Manufacturer.

1917: Dec 31 to Dec 18th 1918

Is the approved plan of boiler forwarded herewith yes
 Total No. of visits 95

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c.) These boilers have been constructed in accordance with the approved plans, the specification & the rules of the Lloyds Register of Shipping. The materials & workmanship are good on completion they were fitted in above, the safety valves adjusted under steam tested for accumulation which did not exceed 169 lbs. examined under steam found tight. In my opinion the vessel is eligible for the years + 1. 12-18

Survey Fee ... £ 16 : 2 :
 Travelling Expenses (if any) £ : :
 To be charged in London see letter 31/8/18

When applied for, 8/11 1919
 When received, 14.3 1919
W. H. H. H.

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

TUE. 31. DEC. 1918