

REPORT ON BOILERS.

Shull Report No 32126

No. 10501

of writing Report 9.10.1919 When handed in at Local Office 9.10.1919 Port of Middlesbrough  
No. in Survey held at Stockton-on-Tees Date, First Survey 13<sup>th</sup> November 1918 Last Survey 9<sup>th</sup> October 1919  
Reg. Book. on the Boiler D 168 for the Admiralty Drifter Windrise (Number of Visits 28) (S.S. No 174) Tons { Gross Net  
Built at New Holland By whom built W. H. Warren & Co. When built  
Engines made at Grimsby By whom made Great Central Eng & Co. When made 1919  
Boilers made at Stockton By whom made Messrs. Hutchinson & Co. (No 4126 C) When made 1919  
Registered Horse Power Owners Admiralty Port belonging to

ULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Hume & Sons  
Letter for record (5) Total Heating Surface of Boilers 814 sq ft Is forced draft fitted no No. and Description of  
Boilers One single ended Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 12.8.19  
of Certificate 6024 Can each boiler be worked separately ✓ Area of fire grate in each boiler 30½ sq ft No. and Description of  
Safety valves to each boiler 2 direct spring Area of each valve 3.98 sq in Pressure to which they are adjusted 185 lb/sq in  
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 or uptakes and bunkers or woodwork 8½" Inside diam. of boilers 10'-0" Length 9'-6"  
Material of shell plates steel Thickness 27/32" Range of tensile strength 28-32 Are the shell plates welded or flanged no  
Direction of riveting: cir. seams 2 R-lap long. seams 2 R-3 Riv Diameter of rivet holes in long. seams 15/16" Pitch of rivets 7"  
Width of butt straps 14" x 3/4" 5 Rivs per pitch Per centages of strength of longitudinal joint rivets 87.5% plate 86.57 Working pressure of shell by  
rules 182 Size of manhole in shell 16" x 12" Size of compensating ring 6" x 27/32" No. and Description of Furnaces in each  
2 plain Material steel Outside diameter 38" Length of plain part top 72½" bottom 99 Thickness of plates crown 1/2" bottom 6.5" mean  
Description of longitudinal joint Weld No. of strengthening rings one Working pressure of furnace by the rules 180 Combustion chamber  
Material steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 9/16" Pitch of stays to ditto: Sides 7½" x 8" Back 8" x 7½"  
7" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 182 Material of stays steel Area at  
lowest part 1.504 Area supported by each stay 60 Working pressure by rules 200 End plates in steam space: Material steel Thickness 7/8"  
of stays 14" x 14" How are stays secured nuts & 5½" x 9/16" washers Working pressure by rules 185 Material of stays steel Area at smallest part 3.43  
supported by each stay 189 Working pressure by rules 189 Material of Front plates at bottom steel Thickness 7/8" Material of  
Back plate steel Thickness 7/8" Greatest pitch of stays 14½" x 7½" Working pressure of plate by rules 205 Diameter of tubes 3½"  
of tubes 4½" x 4½" Material of tube plates steel Thickness: Front 7/8" Back 1/2" Mean pitch of stays 9¼" Pitch across wide  
spaces 13½" doubled Working pressures by rules 180 Girders to Chamber tops: Material steel Depth and thickness of  
at centre 8" x 1½" Length as per rule 28½" Distance apart 7" Number and pitch of Stays in each 2 @ 8"  
Working pressure by rules 191 Steam dome: description of joint to shell none % of strength of joint  
Material Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
of rivets Working pressure of shell by rules Crown plates Thickness How stayed  
SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to  
Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,

THOMAS HUDRON & CO. LIMITED Manufacturer.

During progress of work in shops - 1913 Nov. 13. 26. Dec 9 Jan 22. 27. Feb. 4. 11. 18. 25. 28 Mar 7. 11. Apr 15. 1919  
During erection on board vessel - 1918 Jan 29. to Aug 31. 1920 (Hull) Total No. of visits 28. (Hull) 62.  
Is the approved plan of boiler forwarded herewith yes

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under  
Survey in accordance with the Rules, the approved plan and the specification. The  
materials and workmanship are sound and good and on completion the boiler was tested  
hydraulic pressure with satisfactory results.  
Boiler has been securely fitted in the vessel, - for notation see Eng. Pkt attached

Survey Fee ... £ 4 10. 0 When applied for, Monthly 1919  
Selling Expenses (if any) £ When received, 1919  
Herbert J. Sutherland  
Wm Morrison  
Engineer Surveyor to Lloyd's Register of Shipping

TUE. SEP. 28 1920

Committee's Minute

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