

## REPORT ON BOILERS

No. 10048

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Report 5.3. 1918 When handed in at Local Office 6.3.18 Port of Middlesbrough  
 Survey held at Stockton-on-Tees Date, First Survey 25<sup>th</sup> Sept. 1917 Last Survey 26<sup>th</sup> Feb. 1918  
 on the Boiler for Admiralty Drifter D.17. "Avalanche" (Number of Visits) (S.S.N. 485) Gross 1 Net 1  
 Built at Lowestoft By whom built J. Chambers When built 1918  
 made at Stockton By whom made Thos. Am. Sudron & Co. Ltd (No 4038.D) When made 1918  
 Horse Power 182 Owners Admiralty Port belonging to Admiralty

TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel John Spencer & Sons Ltd.

or record (S) Total Heating Surface of Boilers 814  $\frac{1}{2}$  Is forced draft fitted Yes No. and Description of One single ended  
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 26.2.18

Certificate 5870 Can each boiler be worked separately Yes Area of fire grate in each boiler 30 $\frac{1}{2}$   $\frac{1}{2}$  No. and Description of 2 direct spring

boilers to each boiler 2 direct spring Area of each valve 3.98  $\frac{1}{2}$  Pressure to which they are adjusted 185  $\frac{1}{2}$

fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

distance between boilers or uptakes and bunkers or woodwork 6  $\frac{1}{2}$  Inside Heavy dia. of boilers 10'-0" Length 9'-6"

of shell plates steel Thickness 27  $\frac{32}{32}$  Range of tensile strength 28-32 Are the shell plates welded or flanged no

of riveting: cir. seams 2 R. lap long. seams 2 B-3 Riv Diameter of rivet holes in long. seams 15  $\frac{16}{16}$  Pitch of rivets 7  $\frac{1}{2}$

plates or width of butt straps 14  $\times$  3  $\frac{1}{4}$  Per centages of strength of longitudinal joint rivets 87.5 Working pressure of shell by plate 86.57

Size of manhole in shell 16  $\times$  12 Size of compensating ring 5 $\frac{1}{2}$   $\times$  18 No. and Description of Furnaces in each 2 plain

Material steel Outside diameter 38 Length of plain part top 72 $\frac{1}{2}$  Thickness of plates crown 7  $\frac{1}{2}$  bottom 6  $\frac{1}{2}$  mean

on of longitudinal joint Weld No. of strengthening rings one Working pressure of furnace by the rules 180 Combustion chamber Material steel

Thickness: Sides 9  $\frac{16}{16}$  Back 9  $\frac{16}{16}$  Top 9  $\frac{16}{16}$  Bottom 9  $\frac{16}{16}$  Pitch of stays to ditto: Sides 7 $\frac{1}{4}$   $\times$  8 Back 8  $\times$  7 $\frac{1}{2}$

8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 182 Material of stays steel Area at part 1.504

Area supported by each stay 60 Working pressure by rules 200 End plates in steam space: Material steel Thickness 7  $\frac{1}{8}$

stays 14  $\times$  14 How are stays secured nuts 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  $\frac{1}{8}$  Material of

back plate steel Thickness 7  $\frac{1}{8}$  Greatest pitch of stays 14 $\frac{1}{4}$   $\times$  7 $\frac{1}{2}$  Working pressure of plate by rules 205 Diameter of tubes 3 $\frac{1}{4}$

tubes 4 $\frac{3}{4}$   $\times$  4 $\frac{1}{4}$  Material of tube plates steel Thickness: Front 7  $\frac{1}{8}$  Back 7  $\frac{1}{8}$  Mean pitch of stays 9 $\frac{3}{4}$  Pitch across wide

aces 13 $\frac{1}{4}$   $\times$  8 Working pressures by rules 180 Girders to Chamber tops: Material steel Depth and thickness of

centre 8  $\times$  18 Length as per rule 28 $\frac{1}{4}$  Distance apart 7 Number and pitch of Stays in each 2 @ 8

pressure by rules 191 Steam dome: description of joint to shell none % of strength of joint 5

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

Working pressure of shell by rules Crown plates Thickness How stayed

HEATER. Type none 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

1399. The foregoing is a correct description,

THOMAS SUDRON & CO. LIMITED Manufacturer.

During progress of work in shops - - 1917. Sep 25. 27. Oct 4. 10. 17. 23. Nov 7. 15. 16. 22. Is the approved plan of boiler forwarded herewith yes  
 27. Dec 6. 14. 18. 20. 21. 29. 1918. Jan 10. 16. 22.  
 24. 31. Feb 4. 6. 12. 22.

During erection on board vessel - - - Total No. of visits 26 Return for duplicate Boiler

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special  
 in accordance with the Rules, the approved plan and the specification: is of good materials  
 workmanship and on completion was tested by hydraulic pressure with satisfactory results  
 boiler examined under working conditions & found satisfactory. Safety valves  
 tested 185  $\frac{1}{2}$ .

Fee ... 4-0-0 When applied for, Monthly af

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THE 13 AUG. 1918

L. M. 7:18

MAINTENANCE CERTIFICATE  
 11th 14. 10. 18

W. Morrison & Co. Ltd. Harrogate  
 Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
 Foundation

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