

Rpt. 5a.

REPORT ON BOILERS.

No. 8595

TUE. AUG. 18. 1914

THU. OCT. 22. 1914

Received at London Office

Date of writing Report 17.8.14 1914 When handed in at Local Office 17.8.14 1914 H. Port of Middlesbrough

No. in Survey held at Stockton-on-Tees Date, First Survey April 16th 1914 Last Survey August 14th 1914

Reg. Book. on the steel screw steamer CHEVIOT RANGE (S.S. No. 543) (Number of Visits 13) Tons 13 } Gross
 Net

Master Built at Hartlepool By whom built Swines & Co. Ltd When built

Engines made at By whom made When made

Boilers made at Stockton By whom made Thomas Thos. Anderson & Co. Ltd (No. 3468) When made 1914

Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR DONKEY.~~ Manufacturers of Steel John Spencer & Co.

(Letter for record (S)) Total Heating Surface of Boilers 820 $\frac{1}{2}$ Is forced draft fitted no No. and Description of Boilers One single ended Working Pressure 100 Tested by hydraulic pressure to 200 Date of test 14.8.14

No. of Certificate 5365 Can each boiler be worked separately no Area of fire grate in each boiler 27 $\frac{1}{2}$ No. and Description of safety valves to each boiler no direct spring Area of each valve 5.9 $\frac{1}{2}$ Pressure to which they are adjusted 100 $\frac{1}{2}$

Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 18 $\frac{1}{2}$ Mean dia. of boilers 10'-0" Length 10'-0"

Material of shell plates steel Thickness $\frac{19}{32}$ Range of tensile strength 27-32 $\frac{1}{2}$ Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams 2 R. lap long. seams 3 Riv. lap Diameter of rivet holes in long. seams $\frac{15}{16}$ Pitch of rivets $3\frac{5}{8}$

Lap of plates or width of butt straps $6\frac{1}{2}$ Per centages of strength of longitudinal joint rivets 82.5 Working pressure of shell by rules 100 Size of manhole in shell 16" x 12" Size of compensating ring $5\frac{1}{2} \times \frac{1}{8}$ No. and Description of Furnaces in each boiler 2 plain Material steel Outside diameter 36" Length of plain part top 79.4 Thickness of plates crown $\frac{19}{32}$ bottom 104 bottom .63 mean

Description of longitudinal joint welded No. of strengthening rings none Working pressure of furnace by the rules 115 Combustion chamber plates: Material steel Thickness: Sides $\frac{15}{32}$ Back $\frac{15}{32}$ Top $\frac{15}{32}$ Bottom $\frac{3}{4}$ Pitch of stays to ditto: Sides $7\frac{3}{4} \times 7$ Back $7\frac{3}{4} \times 7\frac{3}{4}$

Top $8\frac{1}{4} \times 7$ stays are fitted with nuts or riveted heads nuts Working pressure by rules 112 Material of stays steel Diameter at smallest part .96 Area supported by each stay 60 Working pressure by rules 128 End plates in steam space: Material steel Thickness $\frac{29}{32}$

Pitch of stays $17\frac{1}{2} \times 17$ How are stays secured nuts & washers Working pressure by rules 117 Material of stays steel Diameter at smallest part 4.3

Area supported by each stay 337 Working pressure by rules 133 Material of Front plates at bottom steel Thickness $\frac{29}{32}$ Material of Lower back plate steel Thickness $\frac{29}{32}$ Greatest pitch of stays $14 \times 7\frac{3}{4}$ Working pressure of plate by rules 124 Diameter of tubes 3 5/8"

Pitch of tubes $4\frac{3}{4} \times 4\frac{3}{8}$ Material of tube plates steel Thickness: Front $\frac{29}{32}$ Back $\frac{2}{32}$ Mean pitch of stays $11\frac{5}{8}$ Pitch across wide water spaces 14" Working pressures by rules 121 Girders to Chamber tops: Material steel Depth and thickness of girder at centre $5\frac{1}{2} \times 1\frac{1}{4}$ Length as per rule $25\frac{1}{8}$ Distance apart $8\frac{1}{4}$ Number and pitch of Stays in each 2 @ $7\frac{1}{2}$

Working pressure by rules 107 Superheater or Steam chest: how connected to boiler none Can the superheater be shut off and the boiler worked separately

Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

SURVEY REQUEST NO. 926 (ATTACHED) forwarded with Rpt No. 8505. The foregoing is a correct description, THOMAS THOS. ANDERSON & CO. LIMITED. Manufacturer.

Dates of Survey } During progress of 1914. Apr. 16-22. Jun. 5. May 12-20. 27 Jul. 14-22-28. Is the approved plan of boiler forwarded herewith yes
 while building } During erection on board vessel - - - 21. Aug. 5-13-14. Total No. of visits 13

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey: is of good material and workmanship and on completion was tested by hydraulic pressure with satisfactory results. Boiler well secured & its safety valves adjusted as above under steam worked well.

Survey Fee £ 27.15-0 When applied for, 191... MONTHLY A/c.
 Travelling Expenses (if any) £ : : When received, 191...

Wm Morrison Esq. 14/10/14
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. OCT. 23. 1914
 Assigned

