

No. 43

(Received in London Office,

# TESTS OF BOILER STEEL.

Tests of 30 Steel plates manufactured by The Newcastle Iron & Coal Co. for Boiler No. 1 to be constructed by J. V. Cotton of South Shields for No. 566 ship

Date first visit 29<sup>th</sup> Jan/85 last visit 3<sup>rd</sup> Feb/85 No. of Visits 2

The Plates specified in the accompanying copy of Advice Notes were rolled from 110 charges. The tensile test has been applied to 12 samples as set forth below, and the temper and bending tests to a sample from each plate with satisfactory results.

When a second test is applied, the result should be recorded immediately below the record of the original test. The number of plates or bars included in a rejection must be clearly stated.

| No. | Purpose.             | Charge Mark | No. of plates or bars in same charge | Mark on plate and test piece. | Dimensions. |        |       | Ultimate Stress. |           | Exten. in 8 ins. | Remarks.     |
|-----|----------------------|-------------|--------------------------------------|-------------------------------|-------------|--------|-------|------------------|-----------|------------------|--------------|
|     |                      |             |                                      |                               | Thickn.     | Brdth. | Area. | Total.           | Sq. Inch. |                  |              |
|     |                      |             |                                      |                               | Ins.        | Ins.   | Ins.  | Tons.            | Tons.     | %                |              |
| 1   | 9-0 x 4 1/2 x 19/32  | 244         | -                                    | 244E                          | .585        | 2      | 1.14  | 33.4             | 26.8      | 26               | ✓            |
| 2   | 13-9 x 15 x 5/8      | 268         | -                                    | 268G                          | .619        | 2      | 1.238 | 35.04            | 28.3      | 23               | ✓            |
| 3   | 7-4 x 5 1/2 x 19/32  | 284         | -                                    | 284F                          | .598        | 2      | 1.196 | 34.15            | 28.5      | 25               | ✓            |
| 4   | 14-3 x 31 x 1/2      | 264         | -                                    | 264J                          | .449        | 2      | .958  | 28.54            | 29.8      | 22 1/2           | ✓            |
| 5   | 10-4 1/4 x 4 9/16    | 282         | -                                    | 282                           | .45         | 2      | .9    | 26.48            | 29.4      | 24               | ✓            |
| 6   | 7-4 x 5 1/2 x 19/32  | 280         | -                                    | 280S                          | .604        | 2      | 1.208 | 35.44            | 29.3      | 29               | ✓            |
| 7   | 5-3 dia x 9/16       | 240         | -                                    | 240M                          | .521        | 2      | 1.04  | 30.35            | 29.1      | 26               | ✓            |
| 8   | 5-4 x 40 x 1 1/4     | 266         | -                                    | 266B                          | .641        | 1.95   | 1.31  | 41.05            | 31.4      | 20               | Retest below |
| 9   | " " "                | "           | -                                    | 266B                          | .668        | 1.95   | 1.3   | 34.50            | 30.3      | 23               | ✓            |
| 10  | 7-9 x 6 1/4 x 4 8/16 | 286         | -                                    | 286f                          | .546        | 1.94   | 1.13  | 31.64            | 28        | 24 1/2           | ✓            |
| 11  | " " "                | 291         | -                                    | 291                           | .586        | 1.95   | 1.14  | 34.34            | 30.1      | 23               | ✓            |
| 12  | 9-3 x 5 1/2 x 19/32  | 293         | -                                    | 293                           | .615        | 1.94   | 1.21  | 36.38            | 30        | 24 3/4           | ✓            |

Fee ..... £ : :

Expenses £ : :

£ : :

To be paid by Manufacturers

James Wain  
Surveyor, Lloyd's Register,  
New Hartlepool



S.S. "Edendale"  
Proc. Report No. 18532



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