## BRITISH STANDARD SPECIFICATION AND SECTIONS FOR

## BULL HEAD RAILWAY RAILS

B.S. 9:1935

Price 10/- net

## BRITISH STANDARDS INSTITUTION

INCORPORATED BY ROYAL CHARTER

BRITISH STANDARDS HOUSE, 2 PARK ST., LONDON, W.1

TELEGRAMS: STANDARDS, AUDLEY, LONDON TELEPHONE: MAYFAIR 9000

## CONTENTS

| P   | age      |
|---|----------|
| Foreword  | 6        |
| SPECIFICATION: TABLE OF CLAUSES   |          |
| 1. Bull Head Railway Rail Sections  | 7        |
| 2. Quality and Chemical Composition of the Steel  | 7        |
| Table 1. Steel made by the Open Hearth Process  | 8        |
| Table 2. Steel made by the Bessemer Process   | 8        |
| 3. Determinations for Carbon and Phosphorus before Rolling  | 8        |
| 4. Complete Chemical Analysis after Rolling   | 8        |
| 5. Number of Chemical Analyses after Rolling  | 9        |
| 6. Falling Weight Test  | 9        |
| 7. Number of Falling Weight Tests   | 10       |
| 8. Tensile Test and Test Pieces   | 10       |
| 9. Number of Tensile Tests  | 11       |
| 10. Tests at Manufacturer's Works   | 11       |
| <ol> <li>Additional Chemical Analyses and<br/>Mechanical Tests before Rejection</li> </ol>        | 11       |
| 12. Independent Chemical Analyses and Tensile Tests   | 13       |
| 13. Testing Facilities  | 14       |
| 14. Manufacture   | 14       |
| 15. Templates   | 14       |
| 16. Notice of Rolling   | 15       |
| 17. Rails to conform to Templates   | 15       |
| 18. Sawing  | 15       |
| 19. Straightening   | 15       |
| 20. Freedom from Defects  | 15       |
| 21. Facilities for Inspection of Manufacture  | 15       |
| 22. Marking of Accepted Rails   | 16       |
| 23. Branding  | 16<br>16 |
| <ul><li>24. Dimensions and Weights of Rails</li><li>25. Permissible Variation in Weight</li></ul> | 16       |
| 26. Payment by Calculated Weight  | 17       |
| 27. Length of Rails for Straight Line   | 17       |
| T. T  |          |

|   | Page    |
|---|---------|
| 28. Length of Rails for Matching  | 17      |
| 29. Permissible Variation in Length of Rails                            | 17      |
| 30. Rails for Switches and Crossings                                    | 17      |
| 31. Holes in Rails  | 17      |
| <ol> <li>Permissible Deviation in Size and Position of Holes</li> </ol> | f<br>18 |
| 33. Rejection   | 18      |
| 34. Arbitration   | 18      |
| J. Holladoli  | 10      |
| APPENDICES  |         |
| A. British Standard Specification No. 103: 1920                         |         |
| for Falling Weight Testing Machines for Rails                           | 19      |
| B. Forms of British Standard Tensile Test Piece                         |         |
| C. Sections and Dimensions of British Standard                          |         |
| Bull Head Railway Rails   | 23      |
| Table 1. Dimensions   | 24      |
| Table 2. Areas of Head, Web and Foot                                    | 24      |
| Plate 1. Key to Table of Dimensions                                     | 25      |
| Plate 2. British Standard Section No. 60                                | 27      |
| Plate 3. British Standard Section No. 65                                | 29      |
| Plate 4. British Standard Section No. 70                                | 31      |
| Plate 5. British Standard Section No. 75                                | 33      |
| Plate 6. British Standard Section No. 80                                | 35      |
| Plate 7. British Standard Section No. 85R                               | 37      |
| Plate 8. British Standard Section No. 90R                               | 39      |
| Plate 9. British Standard Section No. 95R                               | 41      |
| Plate 10. British Standard Section No. 100                              | 43      |
|   |         |