

Title: Calibration of Welder's 1 metre Nibbed Straight Edge

1 Scope

Work Instruction for the calibration of a welder's 1 metre nibbed straight edge. To be used in the absence of a manufacturers calibration instruction.

2 Preparation

Calibration shall be carried out using Category 'A' master instruments.

Equipment required:

- 1200mm Straight Edge
- Set of Feeler Gauges or Starrett Taper Gauge
- 200mm Vernier Calliper

The Vernier Calliper, 1200mm Straight Edge and, where used, Feeler Gauges shall have the appropriate certificate of calibration traceable through United Kingdom Accreditation Service and shall be rechecked at intervals of no more than 5 years. Where a Starrett Taper Gauge is used, this shall have a current and valid checking record and be recorded as a Cat B item in the Calibration Database.

3 Method

3.1 Check that the identification number is clearly visible and that the straight edge is free from damage, burrs, indentations or corrosion.

3.2 Details of the areas where the straight edge requires measuring and checking are detailed in Figure 1. Additionally, the lateral 'bow' of the straight edge needs to be checked.

3.3 Test the 'bow' of the straight edge by laying flat on the Master straight edge. Maximum gap over one metre shall be 2.0mm

3.4 Test the straightness of edge 1 (the bevelled edge) using the master straight edge and feeler gauge. Maximum gap over one metre shall be 0.15mm.

3.5 Measure distance A (edge 1 to tip of nib) and distance B (edge 1 to edge 2) immediately adjacent to the nib, at each end with the Vernier calliper. Deduct measurement B from measurement A. The resulting measurement for each nib shall be $1.5\text{mm} \pm 0.1\text{mm}$.

3.6 Place the nibs of the straight edge against the master straight edge. Measure the gap between the master straight edge and edge 2 using feeler gauges or Starrett Taper Gauge. Take the measurements at intervals of 125mm along the straight edge. All results shall be $1.5\text{mm} + 0.1\text{mm}$.

3.7 Results shall be recorded on the calibration form (see Appendix A) and retained for audit purposes.

4 References

Appendix A. Welder's 1 metre Nibbed Straight Edge Calibration Result Sheet.

Title: Calibration of Welder's 1 metre Nibbed Straight Edge

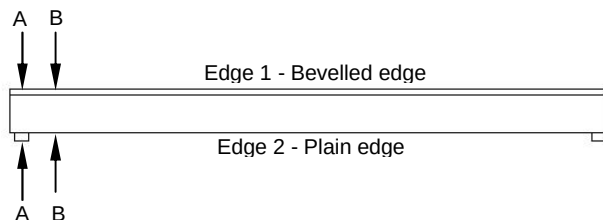


Figure 1. Details of Straight Edge

Copyright Network Rail