

Title: Calibration of Rail Depth Gauge

1 Scope

Work Instruction for the calibration of rail depth gauges. 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:

- 200mm Vernier Calliper
- Lawton Tools Rail Wear Gauge Calibration Block

The Vernier Calliper 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. The RWG calibration block 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 the same on both parts of the gauge.

3.2 Check for visible signs of damage and that the milled lines and rail section markings are clearly visible.

3.3 Check that the slider and locking screw both operate correctly.

3.4 Check that the measurement faces are parallel by locking the sliding face and checking the dimensions across each of the four corners of the measurement faces with master Vernier calliper. The difference between the maximum and minimum readings shall be 0.5mm maximum.

3.5 Check rail measurement by positioning the gauge on each step of the validation block in turn and reading the measurement at each appropriate rail profile marker. The maximum deviation shall be $\pm 0.5\text{mm}$.

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

4 References

Appendix A Rail Depth Gauge Calibration Result Sheet.

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Appendix A. Rail Depth Gauge Calibration Record

Gauge Number:		Date last checked:		Next check due:	
Master Equipment Used:					
Vernier Calliper:		Depth Gauge Validation Block:			

Visual Checks (Identify Pass or Fail as appropriate)			Comments
Check ID number is clearly visible and the same on both parts	Pass	Fail	
Check for visible signs of damage	Pass	Fail	
Check that the milled lines are clearly visible.	Pass	Fail	
Check that the rail section markings are clearly visible.	Pass	Fail	
Check that the locking screw operates correctly	Pass	Fail	
Check that the slider operates correctly	Pass	Fail	

Dimensional Checks (Identify Pass or Fail as appropriate)			Readings / Comments	
Check that the measurement faces are parallel	Pass	Fail	Corner 1 =	Corner 2 =
			Corner 3 =	Corner 4 =
			Max – Min =	
Check rail measurement	Pass	Fail	Rail Section	Reading
			CEN 60	
			CEN 56E1 (113A) / 110A / 109	
			95RBH	
			98	
			80A	

Examined by:	Signed:	Date:
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NOTE Failed equipment is to be labelled 'Do Not Use' and quarantined until rectified or scrapped.