

Standards for European Model Railroads
Wheel Sets for Large and Garden Railroads
Tracking Dimensions

NEM
310G
 1 Page

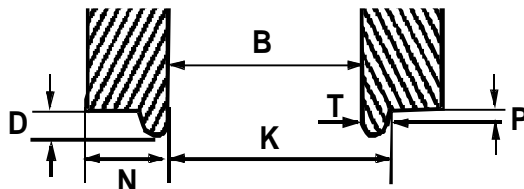
Binding Standard

Dimensions in mm

Edition 2010
 (First English Edition)

This standard is the basis for the manufacturing and testing of wheels and wheel sets, which are suited for operation on track produced according to NEM 110. It is a further development based on the standard for European steam and garden railroads NEDG 310.

The dimensions deviate from the scale reductions from prototypes in the interest of operational reliability.



Dimension Table

| Gauge G of the track | K ²⁾ | | B | | N ³⁾ | | T | | D ⁴⁾ | | P |
|-------------------------|-----------------|-------------------|-------|-------------------|-------------------|------|----------------------|-----|-------------------|-----|-----|
| | min | max ¹⁾ | min | max ¹⁾ | min ¹⁾ | max | min ^{1) 5)} | max | min ¹⁾ | max | |
| 89 | 84.7 | 85.0 | 83.0 | 83.3 | 11.0 | 13.0 | 1.7 | 2.0 | 3.0 | 4.0 | 1.2 |
| 127 | 119.5 | 122.0 | 117.0 | 119.0 | 14.5 | 16.5 | 2.5 | 3.0 | 4.0 | 4.7 | 1.6 |
| 184 | 175.0 | 176.0 | 172.0 | 173.0 | 21.0 | 23.0 | 3.0 | 4.0 | 5.0 | 6.3 | 2.4 |
| 260 | 250.0 | 251.5 | 244.5 | 246.0 | 24.0 | 28.0 | 5.5 | 7.0 | 5.0 | 9.0 | 3.2 |

Remarks

- 1) Achieving these values results in the greatest prototypical similarity.
- 2) It is not permitted to arbitrarily combine limits for dimensions **T**, flange thickness, and **B**, back to back distance, in order to stay within the dimensional limits for **K**. **K** is the controlling dimension.
- 3) The wheel thickness can be smaller than **N_{min}** when the conditions of Remark 4) for wheel flange running are satisfied and when the limitation **K + N > G_{max}** (per NEM 110G) are maintained. Without wheel flange running one can apply the limit value for the wheel width, **N1**, so long as the flange-way width at the frog does not exceed the dimension of **F_{min}** (per NEM 110). Otherwise expect an obvious sinking in the frog gap.
- 4) The adherence to the maximum slot width **F_{max}** (per NEM 110G) in the frog, enables operation with the community of wheels whose flanges have varying heights, **D**. If, due to wheel set rotation, it is necessary to exceed the dimension **F_{max}** (per NEM 110G) in the slot region, then the minimum flange height **D** is allowed to only be 1mm less than the maximum. The slot depth **H_{max}** (per NEM 110G) is then only allowed to be $\geq H_{min} + 1$ mm.
- 5) The application of **T_{min}** should accompany **K_{max}**, to avoid creating unnecessarily large wheel set gauge deviations on the track.