

This is a proposed Standard, and has been published for comment by the Technical Department. Those comments received have been incorporated in this document for submission to the NMRA Board of Directors for approval.

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| NMRA Standards | |
| Clearances | |
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This standard specifies the Clearances for Bridges, Structures and Tangent Tracks for Old Time, Classic and Modern eras. The Old Time era is pre-1920, the Classic era is from 1920-1969 (see Note 2), and the Modern era is post-1983. NMRA Type II Gages used the Old Time dimensions for Narrow Gauge gages, and Classic dimensions for Standard Gauge gages. This document only lists the most popular scales; at the end of each table, the 1:1 scale dimensions are given for conversion to other scales. All dimensions are in inches (rounded to $1/32$), unless otherwise specified.

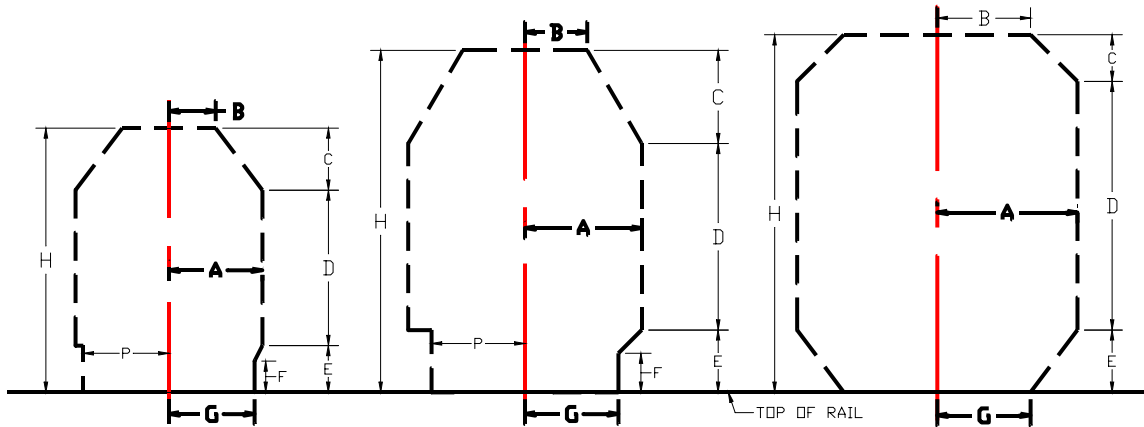


Figure 1: Old Time, Classic, and Modern Clearances

Table 1: Old Time Dimensions (Refer to Figure 1, Left-hand Drawing) See Note 1.

| SCALE | A | B | C | D | E | F | G | H | P |
|------------------------|--------------------|-------------------|--------------------|-------------------|-------------------|-------------------|--------------------------|---------------------|--------------------------|
| LS 1:20.3 (F) | 3 3/32 90 mm | 1 17/32 45 mm | 2 2/32 60 mm | 5 5/32 150 mm | 1 17/32 45 mm | 1 1/32 30 mm | 2 27/32 83 mm | 8 24/32 255 mm | 2 27/32 83 mm |
| LS 1:22.5 (G) | 3 6/32 81 mm | 1 19/32 41 mm | 2 4/32 54 mm | 5 11/32 135 mm | 1 19/32 41 mm | 1 2/32 27 mm | 2 30/32 75 mm | 9 2/32 230 mm | 2 30/32 75 mm |
| LS 1:32 (No. 1) | 2 8/32 57 mm | 1 4/32 29 mm | 1 16/32 38 mm | 3 24/32 95 mm | 1 4/32 29 mm | 24/32 19 mm | 2 2/32 52 mm | 6 12/32 162 mm | 2 2/32 52 mm |
| O Scale | 1 16/32 38 mm | 24/32 19 mm | 1 25 mm | 2 16/32 64 mm | 24/32 19 mm | 16/32 13 mm | 1 12/32 35 mm | 4 8/32 108 mm | 1 12/32 35 mm |
| S Scale | 1 4/32 29 mm | 18/32 14 mm | 24/32 19 mm | 1 28/32 48 mm | 18/32 14 mm | 12/32 10 mm | 1 1/32 26 mm | 3 6/32 81 mm | 1 1/32 26 mm |
| HO Scale | 26/32 21 mm | 13/32 10 mm | 18/32 14 mm | 1 12/32 35 mm | 13/32 10 mm | 9/32 7 mm | 24/32 19 mm | 2 11/32 59 mm | 24/32 19 mm |
| TT Scale | 19/32 15 mm | 10/32 8 mm | 13/32 10 mm | 1 25 mm | 10/32 8 mm | 6/32 5 mm | 18/32 14 mm | 1 22/32 43 mm | 18/32 14 mm |
| N Scale | 14/32 11 mm | 7/32 6 mm | 10/32 8 mm | 24/32 19 mm | 7/32 6 mm | 5/32 4 mm | 13/32 10 mm | 1 9/32 32 mm | 13/32 10 mm |
| 1:1 | 6 ft. 1828.8 mm | 3 ft. 914.4 mm | 4 ft. 1219.2 mm | 10 ft. 3048 mm | 3 ft. 914.4 mm | 2 ft. 609.6 mm | 5 ft. 6 in. 1676.4 mm | 17 ft. 5181.6 mm | 5 ft. 6 in. 1676.4 mm |

Table 2: Classic Dimensions (Refer to Figure 1, Center Drawing)

| SCALE | A | B | C | D | E | F | G | H | P |
|-----------------------------|------------------------|--------------------|--------------------|---------------------|--------------------|-----------------------|--------------------|---------------------|--------------------|
| LS 1:20.3 (F) | 4 14/32 113 mm | 2 12/32 60 mm | 3 17/32 90 mm | 7 3/32 180 mm | 2 12/32 60 mm | 1 15/32 38 mm | 3 17/32 90 mm | 13 330 mm | 3 17/32 90 mm |
| LS 1:22.5 (IIm) | 4 102 mm | 2 4/32 54 mm | 3 6/32 81 mm | 6 13/32 163 mm | 2 4/32 54 mm | 1 11/32 34 mm | 3 6/32 81 mm | 11 23/32 298 mm | 3 6/32 81 mm |
| LS 1:29 | 3 3/32 79 mm | 1 21/32 42 mm | 2 15/32 63 mm | 4 31/32 126 mm | 1 21/32 42 mm | 1 1/32 26 mm | 2 15/32 63 mm | 9 3/32 231 mm | 2 15/32 63 mm |
| LS 1:32 (No. 1) | 2 26/32 71 mm | 1 16/32 38 mm | 2 8/32 57 mm | 4 16/32 114 mm | 1 16/32 38 mm | 30/32 24 mm | 2 8/32 57 mm | 8 8/32 210 mm | 2 8/32 57 mm |
| O Scale | 1 28/32 48 mm | 1 25 mm | 1 16/32 38 mm | 3 76 mm | 1 25 mm | 20/32 16 mm | 1 16/32 38 mm | 5 16/32 140 mm | 1 16/32 38 mm |
| S Scale | 1 13/32 36 mm | 24/32 19 mm | 1 4/32 29 mm | 2 8/32 57 mm | 24/32 19 mm | 15/32 12 mm | 1 4/32 29 mm | 4 4/32 105 mm | 1 4/32 29 mm |
| HO Scale | 1 1/32 26 mm | 18/32 14 mm | 26/32 21 mm | 1 21/32 42 mm | 18/32 14 mm | 11/32 9 mm | 26/32 21 mm | 3 1/32 77 mm | 26/32 21 mm |
| TT Scale | 24/32 19 mm | 13/32 10 mm | 19/32 15 mm | 1 6/32 30 mm | 13/32 10 mm | 8/32 6 mm | 19/32 15 mm | 2 6/32 56 mm | 19/32 15 mm |
| N Scale | 18/32 14 mm | 10/32 8 mm | 14/32 11 mm | 29/32 23 mm | 10/32 8 mm | 6/32 5 mm | 14/32 11 mm | 1 21/32 42 mm | 14/32 11 mm |
| Z Scale | 13/32 10 mm | 7/32 6 mm | 10/32 8 mm | 21/32 17 mm | 7/32 6 mm | 4/32 3 mm | 10/32 8 mm | 1 6/32 30 mm | 10/32 8 mm |
| 1:1 | 7 ft. 6 in. 2286 mm | 4 ft. 1219.2 mm | 6 ft. 1828.8 mm | 12 ft. 3657.6 mm | 4 ft. 1219.2 mm | 2 ft. 6 in. 762 mm | 6 ft. 1828.8 mm | 22 ft. 6705.6 mm | 6 ft. 1828.8 mm |

Table 3: Modern Dimensions (Refer to Figure 1, Right-Hand Drawing)

| | A | B | C | D | E | F | G | H | P |
|-----------------|--------------------|--------------------|-------------------|---------------------|--------------------|---|--------------------|---------------------|--------------------|
| LS 1:29 | 3 23/32 95 mm | 2 15/32 63 mm | 1 8/32 32 mm | 6 20/32 168 mm | 1 21/32 42 mm | - | 2 15/32 63 mm | 9 17/32 242 mm | 2 15/32 63 mm |
| O Scale | 2 8/32 57 mm | 1 16/32 38 mm | 24/32 19 mm | 4 102 mm | 1 25 mm | - | 1 16/32 38 mm | 5 24/32 146 mm | 1 16/32 38 mm |
| S Scale | 1 22/32 43 mm | 1 4/32 29 mm | 18/32 14 mm | 3 76 mm | 24/32 19 mm | - | 1 4/32 29 mm | 4 10/32 110 mm | 1 4/32 29 mm |
| HO Scale | 1 8/32 31 mm | 26/32 21 mm | 13/32 10 mm | 2 7/32 56 mm | 18/32 14 mm | - | 26/32 21 mm | 3 5/32 80 mm | 26/32 21 mm |
| TT Scale | 29/32 23 mm | 19/32 15 mm | 10/32 8 mm | 1 19/32 41 mm | 13/32 10 mm | - | 19/32 15 mm | 2 10/32 58 mm | 19/32 15 mm |
| N Scale | 22/32 17 mm | 14/32 11 mm | 7/32 6 mm | 1 6/32 30 mm | 10/32 8 mm | - | 14/32 11 mm | 1 23/32 44 mm | 14/32 11 mm |
| Z Scale | 16/32 12 mm | 10/32 8 mm | 5/32 4 mm | 28/32 22 mm | 7/32 6 mm | - | 10/32 8 mm | 1 8/32 32 mm | 10/32 8 mm |
| 1:1 | 9 ft. 2743.2 mm | 6 ft. 1828.8 mm | 3 ft. 914.4 mm | 16 ft. 4876.8 mm | 4 ft. 1219.2 mm | - | 6 ft. 1828.8 mm | 23 ft. 7010.4 mm | 6 ft. 1828.8 mm |

Notes:

1. Narrow Gauge locomotives with extra wide cylinders, such as 'K' types, require Classic dimensions for A, B, G, and P.
2. For the years 1969-1983, use Classic dimensions, decrease dimension C to 4 ft., and increase dimension D to 14 ft.