

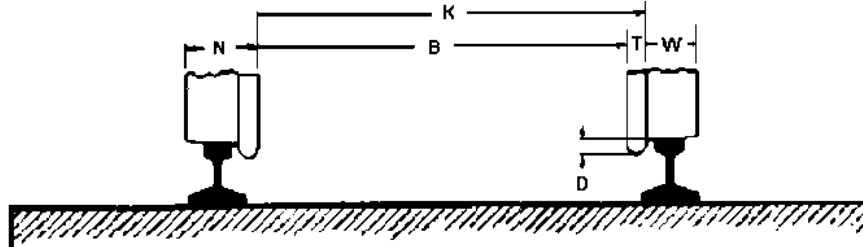
NMRA Standards
S-4.3, Wheels, Scales with deep flanges

NMRA STANDARD

Wheels
Scales with Deep Flanges

Approved: July 2004

S-4.3



Name of Scale	K	B	N	D	T	Notes
Name of Scale	Check Gage (Max.)	Back-to-Back Of Flanges (Min.)	Tire Width (Min.)	Flange Depth (Max.)	Flange Width (Typ.) (Note 2)	
G	With the exception of the maximum Flange Depth and Tire Width, G uses the same wheel geometry as #1 Gauge wheels (see S-4.2)		See Note 3	0.118 3.0 mm	.074 1.88 mm	Notes 2, 3, 5, 6
O_{Hi}	1.156" (29.4)	1.093" (27.8)	.230" (5.8)	.094" (2.4)	.063" (1.6)	Notes 5, 6
O₂₇	O ₂₇ uses the same wheel geometry as O _{Hi} Gauge wheels					
S_{Hi}	.777" (19.7)	.705" (17.9)	.172" (4.4)	.093" (2.4)	.065" (1.7)	Notes 4, 5, 6

NOTES:

- For information on both minimum and maximum manufacturing limits please see NMRA Tech Note: TN-1.2.1
- For dimensions not listed please see S-4.2 #1 scale wheels.
- G models typically have a minimum tire width of .271.
- Truck BOLSTERS (S HI-RAIL only):
Low Bolster: Freight car trucks: 13/32" Passenger car trucks: 1/2"
High Bolster: All Trucks: 5/8"
- RP-25 contours or some other form of fillet are highly recommended for all wheels for increased reliability. The fillet acts to keep the wheels centered on the rails and significantly reduces derailments. Hi-Rail scale Wheels often do not conform to the contours and dimensions of RP-25, so Flange Thickness T is listed above. Contours typically have no fillet radius between Flange and Tread, and Flange tapers on one or both sides
- B represents a minimum value. The actual value can be larger. For example, the preferred manufacturing dimension for G Gauge is 1.575.