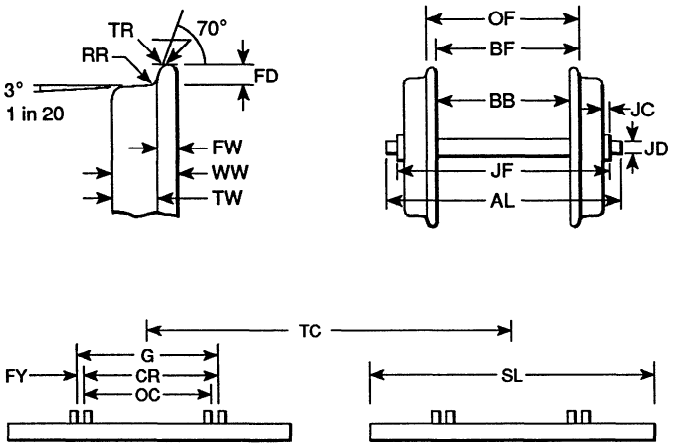
Dimensions and Compatibility with Standard Tracks of Locomotive Wheelsets Not in Current Production

During the development of Gauge O to its present standard many types of wheel have been manufactured and a surprisingly large number of these remain in use long after their manufacture has ceased. In order to enable modellers to determine the suitability of these older wheelsets for running on standard tracks this Data Sheet lists the dimensions of some of the more common types, but it does not claim to be comprehensive as it is impracticable to list the dimensions of every wheelset made.

The dimensional requirements for full compatibility of a wheelset with the track are as follows:-



The minimum back to back (BB) dimension must be greater than the maximum dimension over the check rails (OC). The maximum back to flange face dimension (BF) must be equal to or less than the minimum check rail to opposite rail face dimension (CR). The minimum wheel width (WW) must be equal to or greater than twice the minimum flangeway (2FY).

The Track Standards do not specify a minimum dimension from the running surface to the top of the chairs or other type of rail support. A minimum dimension of 1.6mm will ensure clearance to the flanges of any of the wheels listed in this Data Sheet.

The dimensions have been obtained from published data supplemented by measurement of wheelsets believed to be in their original condition. However, many wheelsets still in existence have been modified since they were manufactured, particularly those for carriages and wagons which permit modification of the back to back and the back to opposite flange face dimensions by simply moving the wheels on the axle. Locomotive wheelsets are less likely to have been modified as usually this would have involved either new axles or turning of the wheels. Because of the possibility of modification the dimensions of a particular wheelset which comes into a modeller's possession can only be confirmed by actual measurement.

The data is confined to the compatibility of the wheelset with the track. It does not include information such as axle dimensions which affect the mounting of the wheelset in the vehicle.

Key to the table

c = Fully compatible with the track standard.
x = Not compatible with the track standard.
Overall compatibility
*** = These wheelsets are fully compatible with this track.
* = Although slightly outside the requirements for full compatibility, which are based on both the track and wheelsets being at the extremes of their respective tolerances and the flange being square, these wheelsets will run satisfactorily on this track.
NC = These wheelsets are not compatible with this track.

Track Standard

Track Dimensions	Guild		Greenly (1935)		BRMSB			Scale	NMRA	AMRA	Euro-pean
	Fine	Coarse	Ordinary	Special	Fine	Coarse	Unified	Seven			NEM
Over check rails OC	28.5	27.6	25.5	27.0	28.5	27.0	28.0	30.94	28.27	28.13	28.0
Check to opp. face CR	30.25	29.8	28.0	29.5	30.0	29.5	30.0	31.99	29.77	29.87	30.0
Twice flangeway 2FY	3.5	4.4	6.5	5.0	3.5	5.0	3.2	1.94	3.0	3.28	4.2
Wheelset Dimensions											
Hornby BB 26.0	x	x	c	x	x	x	x	x	x	x	x
Mazak BF 28.0	c	c	c	c	c	c	c	c	c	c	c
WW 8.0	c	c	c	c	c	c	c	c	c	c	c
Compatibility	NC	NC	***	NC	NC	NC	NC	NC	NC	NC	NC
Hornby BB 28.0	x	c	c	c	x	c	x	x	x	x	x
Lead BF 31.0	x	x	x	x	x	x	x	c	x	x	x
WW 9.0	c	c	c	c	c	c	c	c	c	c	c
Compatibility	These wheelsets are not compatible with any listed track standard										
Bassett- BB 27.0	x	x	c	x	x	x	x	x	x	x	x
Lowke BF 28.5	c	c	x	c	c	c	c	c	c	c	c
WW 6.0	c	c	x	c	c	c	c	c	c	c	c
Compatibility	These wheelsets are not compatible with any listed track standard										
LMC BB 27.0	x	x	c	x	x	x	x	x	x	x	x
Old Type BF 29.0	c	c	x	c	c	c	c	c	c	c	c
WW 6.0	c	c	x	c	c	c	c	c	c	c	c
Compatibility	These wheelsets are not compatible with any listed track standard										
LMC BB 27.5	x	x	c	c	x	c	x	x	x	x	x
New Type BF 28.5	c	c	x	c	c	c	c	c	c	c	c
WW 5.5	c	c	x	c	c	c	c	c	c	c	c
Compatibility	NC	NC	NC	***	NC	***	NC	NC	NC	NC	NC
BB 28.0	x	c	c	c	x	c	x	x	x	x	x
Bonds BF 29.5	c	c	x	c	c	c	c	c	c	c	c
WW 5.0	c	c	x	c	c	c	c	c	c	c	c
Compatibility	NC	***	NC	***	NC	***	*	NC	NC	NC	*
BB 28.0	x	c	c	c	x	c	x	x	x	x	x
Triang Hymek BF 29.5	c	c	x	c	c	c	c	c	c	c	c
WW 5.0	c	c	x	c	c	c	c	c	c	c	c
Compatibility	NC	***	NC	***	NC	***	*	NC	NC	NC	*
Although the flange depth of these wheels is above the upper limits of the Standards they should clear the chairs on most tracks built with heavy section components but they may foul the rail supports on other types of track.											
Pola Maxi BB 28.5	x	c	c	c	x	c	c	x	c	c	c
Lima BF 29.5	c	c	x	c	c	c	c	c	c	c	c
Rivarossi WW 5.0	c	c	x	c	c	c	c	c	c	c	c
Compatibility	*	***	NC	***	*	***	***	NC	***	***	***