

British Narrow Gauge Railway Rail and Sleeper Sizes

This table shows the main rail weights and sleeper dimensions for some of the principle British narrow gauge railways that used flat bottom track at various stages of their existence.

Railway	Gauge	Era	Rails		Sleepers				Notes	Sources
			Weight (lb/yd)	Length (ft)	(LxWxD)	No. fixings per fastening	Spacing			
							Plain Tr.	Joints		
NWNGR	1' 11 1/2"	<1883	35 - 40	24	4' 6" x 9" x 4 1/2"	Fang bolts + dog spikes on alternate sleepers	2' 5 1/4"	2'	mixed half round and square sleepers in 1883	[1]
		1884+	41 1/4	30		Four dog spikes per fastening				[1]
WHR	1' 11 1/2"	1922	40	33	4' x ? x ?	Barbed spikes			Tie bars 3 per length on sharp curves	[1]
		1996+	60 (18kg)	54(18m)	Steel*	clips			*wood sleepers on bridges	[1]
VoR	1' 11 1/2"	1902	32-60*		4' 6" x 9" x 4 1/2"	2 spikes with 4" x 2" clips at joints **	3'		Uncut rails and staggered joints used on mountain section. * Most rail was 40-45 lb/yd [2], ** alternate sleepers [4]	[2] & [4]
		1923	48			Sole plates	2' 6"	2'	Staggered joints. Check rails have 1 3/4" clearance	[2]
		1952	*		*				* ex std gauge from Aberayon Branch	[4]
ALR	1' 11 1/2"	1923	30	24	4' x 6" x 3 1/2"	Single spikes no soleplates *	2' 9"	2'	Metal plates used under crossing vees. * As observed in photos	[3]
L&B	1' 11 1/2"	1898	40	30	4' 6" x 10" x 5"	2 Spikes + fang bolts at joints and possibly elsewhere	2' - 2' 6"*	2' *	Mainline sleepers cut in half. *Spacing estimated from photos and often much closer in stations	[6]
		1923+	40 (reused)	30	4' 6" x 10" x 5"	Bolts, clips & soleplates	2' 6"+		New sleepers throughout – some concrete!	
W&L	2' 6"	1903	45		6' x 9" x 4 1/2"	Spikes	2' 3"		Original sleepers	[4]
					4' 6" x 9" x 6"				Replacement sleepers	[4]
GVT	2' 4 1/2"	1888+	50	25 or 28	5' x 10" x 5" *	Clip & bolt at joints & curves – elsewhere spikes. Later years clip & bolt outside, spikes inside	3' - 4'		* quoted as being cut down main lines sleepers, but these would be 4' 6" long. Tie rods used on curves bolted on the outside.	[4]

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Std. Gauge	4' 8 1/2"	<1923	95 (BH)	60	9' x 10" x 5" *				* If cut would give two sleepers of 4' 6" x 10" x 5"	
		1923 +	95 (BH)	60	8'6" x 10" x 5" *				* If cut would give two sleepers of 4' 3" x 10" x 5"	

References and Sources

- [1] Narrow Gauge Railways in South Caernarvonshire, J.I.C. Boyd (Oakwood Press 1972)
- [2] The Vale of Rheidol Light Railway, C.C. Green (Wild Swan 1986)
- [3] The Ashover Light Railway, R Gratton & S.R. Band (Wild Swan 1989)
- [4] Narrow Gauge Railways in Mid-Wales, J.I.C. Boyd (Oakwood Press 1986)
- [5] The Lynton and Barnstable Railway, Brown Prideaux and Radcliffe (Atlantic 1996)
- [6] Michael Brown

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