

## Standard Metric Gear Table

The table below shows the distance travelled in metres per crank revolution. This Gear Table is used by Youth riders, to calculate the gear they are using and to ensure it falls within the gear restrictions. This metric system tends to be used across Europe.

Standard Sprint Rim with normal road tubular tyre															
SPROCKET SIZE															
	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
39	6.94	6.41	5.95	5.55	5.21	4.90	4.63	4.38	4.16	3.97	3.79	3.62	3.47	3.33	3.20
40	7.12	6.57	6.10	5.69	5.34	5.02	4.75	4.50	4.27	4.07	3.88	3.71	3.56	3.42	3.29
41	7.30	6.74	6.25	5.84	5.47	5.15	4.86	4.61	4.38	4.17	3.98	3.81	3.65	3.50	3.37
42	7.47	6.90	6.41	5.98	5.61	5.28	4.98	4.72	4.48	4.27	4.08	3.90	3.74	3.59	3.45
43	7.65	7.06	6.56	6.12	5.74	5.40	5.10	4.83	4.59	4.37	4.17	3.99	3.83	3.67	3.53
44	7.83	7.23	6.71	6.26	5.87	5.53	5.22	4.95	4.70	4.47	4.27	4.09	3.92	3.76	3.61
45	8.01	7.39	6.86	6.41	6.01	5.65	5.34	5.06	4.80	4.58	4.37	4.18	4.00	3.84	3.70
46	8.19	7.56	7.02	6.55	6.14	5.78	5.46	5.17	4.91	4.68	4.47	4.27	4.09	3.93	3.78
47	8.36	7.72	7.17	6.69	6.27	5.90	5.58	5.28	5.02	4.78	4.56	4.36	4.18	4.01	3.86
48	8.54	7.89	7.32	6.83	6.41	6.03	5.69	5.40	5.13	4.88	4.66	4.46	4.27	4.10	3.94
49	8.72	8.05	7.47	6.98	6.54	6.16	5.81	5.51	5.23	4.98	4.76	4.55	4.36	4.19	4.02
50	8.90	8.21	7.63	7.12	6.67	6.28	5.93	5.62	5.34	5.08	4.85	4.64	4.45	4.27	4.11
51	9.08	8.38	7.78	7.26	6.81	6.41	6.05	5.73	5.45	5.19	4.95	4.74	4.54	4.36	4.19
52	9.25	8.54	7.93	7.40	6.94	6.53	6.17	5.84	5.55	5.29	5.05	4.83	4.63	4.44	4.27
53	9.43	8.71	8.08	7.55	7.07	6.66	6.29	5.96	5.66	5.39	5.14	4.92	4.72	4.53	4.35
54	9.61	8.87	8.24	7.69	7.21	6.78	6.41	6.07	5.77	5.49	5.24	5.01	4.80	4.61	4.44
55	9.79	9.03	8.39	7.83	7.34	6.91	6.53	6.18	5.87	5.59	5.34	5.11	4.89	4.70	4.52
56	9.97	9.20	8.54	7.97	7.47	7.03	6.64	6.29	5.98	5.69	5.44	5.20	4.98	4.78	4.60

2008 Gear Restrictions: Youth category riders shall be restricted in track events to maximum gears as shown in the following table:

CATEGORY Age on 1 <sup>st</sup> Jan	TRACK RACING	NOTE: The Gear restrictions shown are the MAXIMUM gear you are permitted to use in each age group. Tyre width and tyre pressure will alter the distance travelled per revolution so riders are advised to always roll out the gear prior to a competition to ensure they are within the limits. You may use any combination of chainring and sprocket, providing you do not exceed the maximum distance travelled per revolution. Refer to the current BC Rule Book for any amendments. The formula for calculating the gear in metres is: <b>Gear in metres = Diameter of rear wheel in metres × π (3.14) × No of teeth on chainring ÷ No of teeth on sprocket.</b>
JUNIOR (U18)	7.93 meters	
YOUTH A (Under 16)	6.93 metres	
YOUTH B (Under 14)	6.45 metres	
YOUTH C (Under 12)	6.05 metres	
YOUTH D (Under 10)	5.40 metres	
YOUTH E (Under 8)	5.10 metres	

## Metric Gear Table for 18mm Low profile tyres

The table below shows the distance travelled in metres per crank revolution when using 18mm low profile (narrow) tyres. This Gear Table should only be used as a reference point. When calculating your gear, always refer to the Standard Gear Table for tubulars, and then make any adjustments. It is the rider's responsibility to ensure their bike is within the restriction, no matter what combination of tyres, chainring and sprockets they have on the bike.

Standard Sprint Rim with 18mm low profile tubular and standard standard 700c rim with racing tyre slick H.P. tyre															
SPROCKET SIZE															
	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
<b>39</b>	6.84	6.31	5.86	5.47	5.13	4.83	4.56	4.32	4.10	3.91	3.73	3.57	3.42	3.28	3.15
<b>40</b>	7.01	6.47	6.01	5.61	5.26	4.95	4.67	4.43	4.21	4.01	3.82	3.66	3.51	3.37	3.24
<b>41</b>	7.19	6.63	6.16	5.75	5.39	5.07	4.79	4.54	4.31	4.11	3.92	3.75	3.59	3.45	3.32
<b>42</b>	7.36	6.80	6.31	5.89	5.52	5.20	4.91	4.65	4.42	4.21	4.02	3.84	3.68	3.53	3.40
<b>43</b>	7.54	6.96	6.46	6.03	5.65	5.32	5.02	4.76	4.52	4.31	4.11	3.93	3.77	3.62	3.48
<b>44</b>	7.71	7.12	6.61	6.17	5.78	5.44	5.14	4.87	4.63	4.41	4.21	4.02	3.86	3.70	3.56
<b>45</b>	7.89	7.28	6.76	6.31	5.92	5.57	5.26	4.98	4.73	4.51	4.30	4.12	3.94	3.79	3.64
<b>46</b>	8.06	7.44	6.91	6.45	6.05	5.69	5.38	5.09	4.84	4.61	4.40	4.21	4.03	3.87	3.72
<b>47</b>	8.24	7.60	7.06	6.59	6.18	5.82	5.49	5.20	4.94	4.71	4.49	4.30	4.12	3.95	3.80
<b>48</b>	8.41	7.77	7.21	6.73	6.31	5.94	5.61	5.31	5.05	4.81	4.59	4.39	4.21	4.04	3.88
<b>49</b>	8.59	7.93	7.36	6.87	6.44	6.06	5.73	5.42	5.15	4.91	4.68	4.48	4.29	4.12	3.96
<b>50</b>	8.76	8.09	7.51	7.01	6.57	6.19	5.84	5.54	5.26	5.01	4.78	4.57	4.38	4.21	4.04
<b>51</b>	8.94	8.25	7.66	7.15	6.70	6.31	5.96	5.65	5.36	5.11	4.88	4.66	4.47	4.29	4.13
<b>52</b>	9.11	8.41	7.81	7.29	6.84	6.43	6.08	5.76	5.47	5.21	4.97	4.76	4.56	4.37	4.21
<b>53</b>	9.29	8.57	7.96	7.43	6.97	6.56	6.19	5.87	5.57	5.31	5.07	4.85	4.64	4.46	4.29
<b>54</b>	9.46	8.74	8.11	7.57	7.10	6.68	6.31	5.98	5.68	5.41	5.16	4.94	4.73	4.54	4.37
<b>55</b>	9.64	8.90	8.26	7.71	7.23	6.80	6.43	6.09	5.78	5.51	5.26	5.03	4.82	4.63	4.45
<b>56</b>	9.82	9.06	8.41	7.85	7.36	6.93	6.54	6.20	5.89	5.61	5.35	5.12	4.91	4.71	4.53

## Standard Imperial Gear Table

The table below shows the gear measurement calculated in inches. Junior and Senior Riders often use this on the track, in English speaking countries.

	SPROCKET SIZE														
	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
39	87.8	81.0	75.2	70.2	65.8	62.0	58.5	55.4	52.7	50.2	47.9	45.8	43.9	42.1	40.5
40	90.0	83.1	77.2	72.0	67.5	63.5	60.0	56.9	54.0	51.4	49.1	47.0	45.0	43.2	41.5
41	92.3	85.2	79.1	73.8	69.2	65.1	61.5	58.3	55.4	52.7	50.3	48.1	46.1	44.3	42.6
42	94.5	87.2	81.0	75.6	70.9	66.7	63.0	59.7	56.7	54.0	51.6	49.3	47.3	45.4	43.6
43	96.8	89.3	82.9	77.4	72.6	68.3	64.5	61.1	58.1	55.3	52.8	50.5	48.4	46.4	44.7
44	99.0	91.4	84.9	79.2	74.3	69.9	66.0	62.5	59.4	56.6	54.0	51.7	49.5	47.5	45.7
45	101.3	93.5	86.8	81.0	76.0	71.5	67.5	64.0	60.8	57.9	55.2	52.8	50.6	48.6	46.7
46	103.5	95.6	88.7	82.8	77.6	73.1	69.0	65.4	62.1	59.2	56.5	54.0	51.8	49.7	47.8
47	105.8	97.6	90.7	84.6	79.3	74.7	70.5	66.8	63.5	60.4	57.7	55.2	52.9	50.8	48.8
48	108.0	99.7	92.6	86.4	81.0	76.3	72.0	68.2	64.8	61.7	58.9	56.4	54.0	51.9	49.9
49	110.3	101.8	94.5	88.2	82.7	77.8	73.5	69.6	66.2	63.0	60.1	57.5	55.1	52.9	50.9
50	112.5	103.9	96.4	90.0	84.4	79.4	75.0	71.1	67.5	64.3	61.4	58.7	56.3	54.0	51.9
51	114.8	105.9	98.4	91.8	86.1	81.0	76.5	72.5	68.9	65.6	62.6	59.9	57.4	55.1	53.0
52	117.0	108.0	100.3	93.6	87.8	82.6	78.0	73.9	70.2	66.9	63.8	61.1	58.5	56.2	54.0
53	119.3	110.1	102.2	95.4	89.5	84.2	79.5	75.3	71.6	68.2	65.1	62.2	59.6	57.3	55.0
54	121.5	112.2	104.2	97.2	91.1	85.8	81.0	76.8	72.9	69.4	66.3	63.4	60.8	58.3	56.1
55	123.8	114.3	106.1	99.0	92.8	87.4	82.5	78.2	74.3	70.7	67.5	64.6	61.9	59.4	57.1
56	126.0	116.3	108.0	100.8	94.5	89.0	84.0	79.6	75.6	72.0	68.7	65.8	63.0	60.5	58.2

### NOTE:

- In English speaking countries cycle gearing is usually measured in inches and comes from the olden days of penny-farthings. A larger number means the gear is harder to push, and a smaller number means the gear is easier to push.
- To calculate gear size, use the following formula:

$$\text{Gear in inches} = \text{Diameter of rear wheel in inches} \times \text{No of teeth on chainring} \div \text{No of teeth on sprocket.}$$

You will sometimes read that the size of a gear in inches is the distance travelled with each turn of the pedals. This is incorrect. To get the distance travelled you must multiply gear inches by  $\pi$  (3.14).