

[Sheldon Brown's Bicycle Glossary](#)

Bolt Circle Diameter (B.C.D.)

On a [crank set](#), the diameter of the circle formed by the [stack bolts](#).

Standard double chainwheel sets use 130 mm or 110 mm diameters.

Modern triple chainwheel sets have two diameters, a large one for the two outer chainrings, and a smaller diameter, with a separate set of bolts, for the [granny](#) ring.

Full-size triples usually use 110 mm/74 mm, or 130 mm/74 mm for newer "road triples." [Campagnolo](#) uses 135 mm/74 mm. [Compact](#) triples commonly use 94 mm/58 mm.

Some crank sizes:

"C-C" is the distance between adjacent stack bolts.

This is easier to measure directly than the actual Bolt Circle Diameter.



Measuring BCD: This 110 mm BCD ring measures 64.7 mm center-to-center.

Multiplying this dimension by 1.7 will give you the actual BCD for a 5 bolt chainring.

Use 1.4 for 4 bolt chainrings

5 Bolt Cranks:

<u>BCD</u> <u>(mm)</u>	Smallest Ring	Center- Center (mm)	Application
151	44	88.8	Very old Campagnolo standard (pre '67) (Obsolete)
144	41	84.6	Old Campagnolo standard, still used for <u>track</u> applications.
135	39	79.5	Current Campagnolo standard
130	38	76.4	Standard Road double and triple (outer 2)
128	38	75.2	Nervar (Obsolete)
122	38	71.7	Stronglight 93, others (Obsolete)
118	36	69.4	Ofmega, SR (Obsolete)
116	35	68.2	Old Campagnolo (Obsolete)
110	33	64.7	Touring double, standard triple outer
94	29	55.4	<u>Compact</u> triple outer
92	30	53.3	Shimano Dura-Ace triple inner.
86	28	50.5	Stronglight 99, some SR triples. (Obsolete)
74	24	43.5	Standard ("full-sized") triple inner, used with 110 mm, 130 mm or 135 mm rings.
58	20	34.3	<u>Compact granny</u>
56	20	32.9	Sun Tour <u>Compact granny</u> (Obsolete)

4 Bolt Cranks:

<u>BCD</u> <u>(mm)</u>	Smallest Ring	Center- Center (mm)	Application
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146	44	103.2	Shimano XTR M960 Hollowtech 4-arm outer
112	34	79.2	Shimano XTR M950, M952 4-arm middle/outer
104	32	73.6	Shimano XTR M960, XT, LX 4-arm outer
68	22	48.1	Shimano XTR M950, M952 4-arm inner
64	22	45.3	Shimano XTR M960, XT, LX 4-arm inner