

【Question】



Are there special screw threads exclusively used on bicycles?

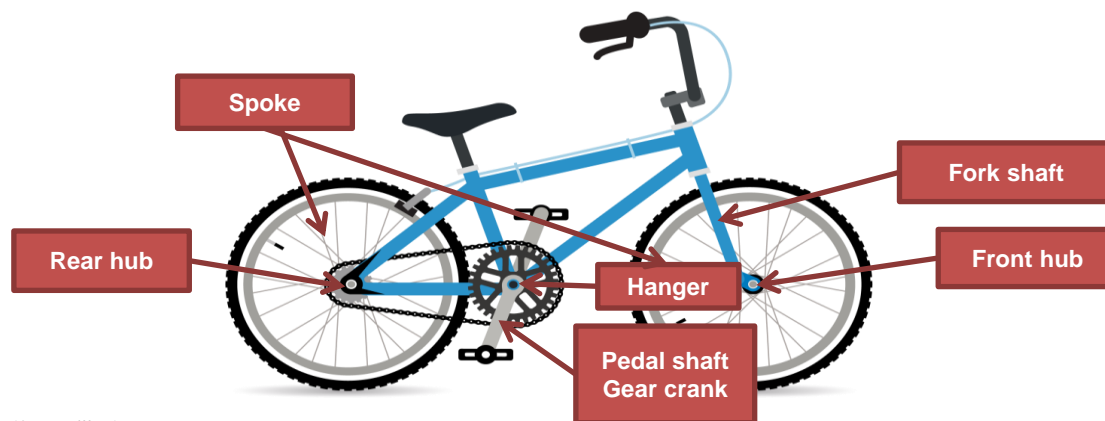
【Answer】

Yes, there are!
They are called Bicycle Threads and they are distinguished with the symbol "BC".



【Guide】

Bicycles made in Japan are under the control of the JIS (Japanese Industrial Standards). There are screw thread sizes that are used exclusively for bicycles in addition to standard metric sizes controlled by JIS. The "BC" symbol for bicycle screw threads is classified into "General Use" and "Spoke Use". The categories for the thread sizes and threads are defined by the different components of a bicycle.

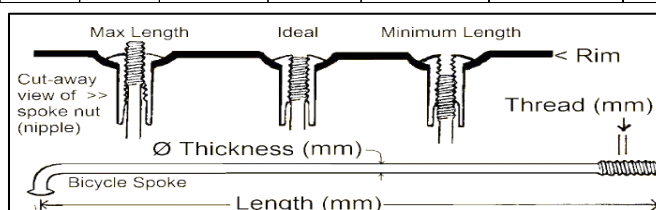


<General Use>

Size	Number of Threads	Pitch	Bolt screw thread/height	Root radius	Internal Threads			Applications
					Major Diameter (Basic Size)	Pitch Diameter (Basic Size)	Minor Diameter (Basic Size)	
BC 5/16	26	0.977	0.52	0.16	7.94	7.42	7.06	Front hub shaft
BC 3/8	26	0.977	0.52	0.16	9.53	9.01	8.65	Rear hub shaft
BC 7/16	26	0.977	0.52	0.16	11.11	10.59	10.23	Rear hub shaft for heavy load
BC 1/2	20	1.27	0.68	0.21	12.7	12.02	11.55	Pedal shaft (left/right), Gear crank (left/right)
BC 9/16	20	1.27	0.68	0.21	14.29	13.61	13.14	Pedal shaft (left/right), Gear crank (left/right)
BC 5/8	20	1.27	0.68	0.21	15.88	15.2	14.73	Two-wheel cart shaft
BC 11/16	24	1.058	0.56	0.18	17.46	16.9	16.48	Hanger (left)
BC 3/4	30	0.847	0.45	0.14	19.05	18.6	18.29	Hanger
BC 31/32	30	0.847	0.45	0.14	24.61	24.16	23.85	Front fork shaft
BC 1	24	1.058	0.56	0.18	25.4	24.84	24.46	Front fork shaft
BC 1.29	24	1.058	0.56	0.18	32.77	32.21	31.83	Nut for rear hub shaft suspension (left)
BC 1.37	24	1.058	0.56	0.18	34.8	34.24	33.86	Rear hub, hand brake, small gear, hanger (left/right), free wheel
BC 1 7/16	24	1.058	0.56	0.18	36.51	35.95	35.57	Hanger
BC 1.45	24	1.058	0.56	0.18	36.83	36.27	35.89	Hanger
BC 1 9/16	24	1.058	0.56	0.18	39.69	39.13	38.75	Free wheel tang (left)

<Spoke Use>

*Size	Number of Threads	Pitch	Bolt screw thread/height	Root radius	Internal Threads			Applications	The number of spoke
					Major Diameter (Basic Size)	Pitch Diameter (Basic Size)	Minor Diameter (Basic Size)		
BC 1.8	56	0.454	0.24	0.08	2.06	1.82	1.66	Light vehicles	#15
BC 2	56	0.454	0.24	0.08	2.27	2.03	1.87	Utility vehicles	#14
BC 2.3	56	0.454	0.24	0.08	2.57	2.33	2.17		#13
BC 2.6	56	0.454	0.24	0.08	2.87	2.63	2.47		#12
BS 2.9	44	0.577	0.31	0.10	3.24	2.93	2.72	Two-wheel cart, heavy load	#11
BC 3.2	40	0.635	0.34	0.11	3.57	3.23	3.00		#10
BC 3.5	40	0.635	0.34	0.11	3.87	3.53	3.30		#9
BC 4	32	0.794	0.42	0.13	4.45	4.03	3.74		#8



*The thread size of the spoke nipple threads is based on the diameter of the spoke wire size.



There are some main worldwide bicycle standards such as British standard, French standard, and Italian standard. However, there is no commonality between those international standards.
(JIS follows British standard and ISO standard.)