

## Rollway Bearings for Crane Hooks

Large overhead cranes have been used in heavy industry for almost a century. Rollway has been there from the start, supplying high quality engineered roller thrust bearings for the crane's Hook Block Swivel.

The hoist is the primary mechanism on the crane providing the lifting and lowering ability for the load. The load is attached to the hoist via the hook block. A hook block is comprised of a hook, a swivel bearing and a number of sheaves through which the hoist cable runs.

The swivel bearing supports the hook, allowing it to turn freely and ensuring the hook can be secured to the lifting device load without twisting the lifting wire ropes or cables. Lifting devices are attached to the crane hook



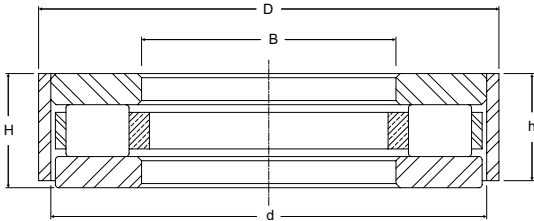
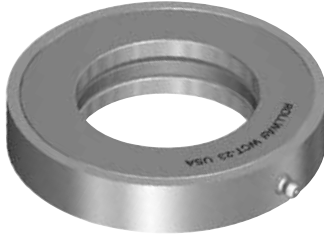
to assist in securely attaching the load to the crane. The lifting device used is determined by the shape of the load. Lifting devices include; magnets, grabs, slings, buckets and hooked chains.

Not all hook blocks are manufactured the same. Each manufacturer has its own unique way of designing and building their blocks. Some hook blocks are designed to leave the bearing fully exposed, others provide a shielding for the bearing to keep out contaminants. Regardless of the block design Rollway has the right bearing for the job.

All Rollway thrust bearing plates and rollers are manufactured from high quality bearing grade steel. The plates are ground and superfinished. The rollers have crowned outside diameters, yielding a more evenly distributed load pattern on the races, which results in longer life. Rollway thrust retainers are machined from centrifugally cast bronze and have steel retaining rings.

Rollway offers a complete line of banded and open cylindrical roller thrust bearings along with many open design tapered thrust bearings. On the next page are examples of Rollway's thrust bearings that are used in crane hook swivel applications. These applications are unique in that the swivel bearings are typically exposed to static loading conditions with very little rotational action, for this reason the static capacities are listed in the tables on the next page.

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- BASIC CONSTRUCTION TYPE:** Standard cylindrical roller thrust bearing
- ROLLING ELEMENTS:** Crowned cylindrical rollers with sphered ends
- BEARING MATERIAL:** Through hardened or case carburized bearing grade steel
- SERIES:** With or without grease fitting
- RETAINER TYPES:** Machined brass with steel retaining ring

Part No.	Designed Hook Shank	B	D		H	Basic Static Rating	
			Bore	Outside Diameter			
Grease Fitting		inches	inches	inches	inches	lb/N	
None	Installed			CT	WCT		
CT-11	WCT-11	1.625	1.640	3.093	3.343	.812	36,890 164,090
CT-16	WCT-16	1.938	1.952	3.468	3.593	.812	65,310 290,510
CT-17	WCT-17	2.000	2.015	3.937	4.000	1.000	73,210 325,650
CT-19	WCT-19	2.250	2.265	4.000	4.250	1.000	72,970 324,590
CT-20-C	WCT-20-C	2.250	2.265	4.250	4.375	1.000	88,600 394,110
CT-23	WCT-23	2.750	2.765	4.750	4.843	1.000	93,820 417,330
CT-24-A	WCT-24-A	2.750	2.765	4.875	5.156	1.250	121,300 539,570
CT-27-A	WCT-27-A	3.250	3.265	6.125	6.250	1.500	180,810 804,280
CT-27-C	WCT-27-C	3.250	3.265	6.187	6.375	1.750	212,960 947,290
CT-27-B	WCT-27-B	3.500	3.515	6.156	6.375	1.625	203,410 904,810
CT-28-A	WCT-28-A	3.500	3.515	6.750	6.937	1.625	245,110 1,090,300
CT-30-B	WCT-30-B	3.563	3.577	6.375	6.375	1.375	207,000 920,780
CT-34-A	WCT-34-A	3.750	3.765	7.125	7.250	1.875	288,080 1,281,440
CT-35-A	WCT-35-A	4.250	4.265	8.171	8.375	2.000	369,200 1,642,280
CT-38-A	WCT-38-A	4.500	4.515	8.125	8.312	2.000	390,910 1,738,850
CT-39-A	WCT-39-A	5.000	5.015	9.156	9.375	2.250	628,470 2,795,570
CT-44-A	WCT-44-A	5.500	5.515	10.500	10.500	2.500	633,000 2,815,720
CT-45-A	WCT-45-A	6.000	6.015	11.156	11.375	3.000	923,160 4,106,420
CT-45-B	WCT-45-B	5.563	5.577	11.500	11.500	2.000	858,000 3,816,570
CT-48	WCT-48	7.000	7.015	11.500	11.500	2.000	699,000 3,109,310
CT-49-A	WCT-49-A	6.813	6.827	12.750	12.750	2.500	1,004,880 4,469,930
CT-51	WCT-51	7.875	7.890	12.375	12.375	3.000	904,500 4,023,410
CT-52	WCT-52	8.438	8.454	14.500	14.500	3.000	1,170,000 5,204,420
CT-53	WCT-53	8.875	8.890	16.500	16.500	3.000	2,075,000 9,230,060
CT-54	WCT-54	9.313	9.327	16.500	16.500	3.000	1,812,000 8,060,170
CT-55	WCT-55	9.625	9.640	18.500	18.500	3.750	2,269,000 10,093,010

ROLLWAY

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#### APPLICATION CONSIDERATIONS

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