



## About WD

WD Bearing Group is a technology-focused company with a global footprint. We specialize in R&D, manufacturing, sales and service of high-quality bearings.

WD manufactures in accordance with Six Sigma principles and quality management systems, such as ISO 9001, ISO 14001, and IATF 16949. WD continuously invests in advanced machining equipment, professional bearing software, and highly-skilled employees. This focus makes WD the customer's first choice of expert bearing solutions.

WD bearings are frequently supplied to OEMs in several industries, such as planetary gearbox, material handling, construction machinery, agricultural machinery, fluid equipment, etc. Our global engineering departments and sales teams are dedicated to exceeding each customer's needs with personalized and reliable bearing solutions.

We look forward to building long-term and mutually beneficial partnerships with customers around the world. After all, everyone knows "Quality Creates Value".



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# WD NNF & NNC Bearings For Crane Rope Sheaves



## Introduction

The design of crane is becoming more and more compact and powerful. The rope sheaves in cranes transmit reliable and heavy loads in a complex environment and conditions, which brings higher function, lifetime, maintenance and adaptability requirements for the rolling bearings.



Maximum load capacity



Reliable & long life



Easy to install & maintain

**Product Features**

- a. WD NNF & NNC series of double row full complement cylindrical roller bearings (AKA SL bearings) can accommodate maximum radial load, as well as axial load in both direction and tilt/moment loads.
- b. These bearings are suited for low-to-medium speed applications and most often used with rope sheaves and pulleys for cranes. With a narrower outer ring, additional sleeves or spaces are not required for installation. Two snap ring grooves on the outer ring enables simple arrangements and installation for sheaves for improved efficiency and consistency in assembly.
- c. Contact seals on both sides of the bearing protect against dust and water intrusion. For severe conditions, WD offers special anti-corrosive coating which can withstand more than 192 hours in neutral salt spray tests making even the most corrosive conditions manageable.
- d. Lubrication holes in the outer and inner rings enable easy re-lubrication through the shaft or housing. Special grease for extreme low temperature ensures your bearings never lock up.



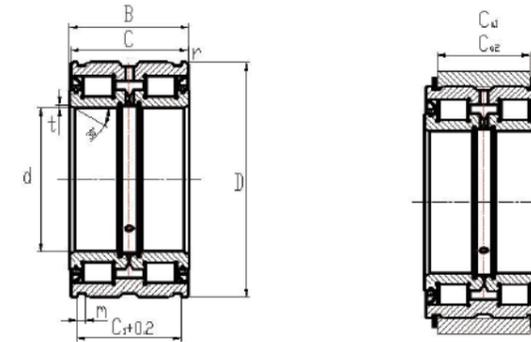
**Bearing Fit & Clearance**

During the working period of the rope sheave, the bearing outer ring rotates and withstands a circumferential load while the inner ring is fixed and withstands a directional load. Therefore, the bearing outer ring should fit with the housing in interference fit and the bearing inner ring should fit with the shaft in gap fit. We recommend to choose g6 fit for inner ring and shaft, and M7 or N7 for outer ring and housing.

Radial clearance chart:

d mm		Radial Clearance							
		CN μm		C3 μm		C4 μm		C5 μm	
From	To	Min	Max	Min	Max	Min	Max	Min	Max
-	24	20	45	35	60	50	75	65	90
24	30	20	45	35	60	50	75	70	95
30	40	25	50	45	70	60	85	80	105
40	50	30	60	50	80	70	100	95	125
50	65	40	70	60	90	80	110	110	140
65	80	40	75	65	100	90	125	130	165
80	100	50	85	75	110	105	140	155	190
100	120	50	90	85	125	125	165	180	220
120	140	60	105	100	145	145	190	200	245
140	160	70	120	115	165	165	215	225	275
160	180	75	125	120	170	170	220	250	300
180	200	90	145	140	195	195	250	275	330
200	225	105	165	160	220	220	280	305	365
225	250	110	175	170	235	235	300	330	395
250	280	125	195	190	260	260	330	370	440
280	315	130	205	200	275	275	350	410	485
315	355	145	225	225	305	305	385	455	535
355	400	190	280	280	370	370	460	510	600

**Bearing Catalog**



Bearing Code	Dimension (mm)							Fitting Dimension (mm)		Load Rating (KN)	Limiting Speed	Retaining Ring			
	d	D	B	C	C <sub>1+0.2</sub>	m	r	t	C <sub>a1-0.2</sub> ①			C <sub>a2-0.2</sub> ②	Cr	Cor	rpm
NNF5004-2LS-V	20	42	30	29	24.7	1.8	0.3	0.5	21.5	21	41	55	3800	WRE42	42×1.75
NNF5005-2LS-V	25	47	30	29	24.7	1.8	0.3	0.5	21.5	21	46	63	3400	WRE47	47×1.75
NNF5006-2LS-V	30	55	34	33	28.2	2.1	0.3	0.5	25	24	49	72	2900	WRE55	55×2
NNF5007-2LS-V	35	62	36	35	30.2	2.1	0.3	0.5	27	26	62	95	2500	WRE62	62×2
NNF5008-2LS-V	40	68	38	37	32.2	2.7	0.6	0.8	28	27	78	119	2500	WRE68	68×2.5
NNF5009-2LS-V	45	75	40	39	34.2	2.7	0.6	0.8	30	29	90	143	2200	WRE75	75×2.5
NNF5010-2LS-V	50	80	40	39	34.2	2.7	0.6	0.8	30	29	98	154	2000	WRE80	80×2.5
NNF5011-2LS-V	55	90	46	45	40.2	3.2	0.6	1	35	34	116	189	1800	WRE90	90×3
NNF5012-2LS-V	60	95	46	45	40.2	3.2	0.6	1	35	34	117	206	1700	WRE95	95×3
NNF5013-2LS-V	65	100	46	45	40.2	3.2	0.6	1	35	34	127	232	1500	WRE100	100×3
NNF5014-2LS-V	70	110	54	53	48.2	4.2	0.6	1	43	40	173	319	1400	WRE110	110×4
NNF5015-2LS-V	75	115	54	53	48.2	4.2	0.6	1	43	40	197	340	1300	WRE115	115×4
NNF5016-2LS-V	80	125	60	59	54.2	4.2	0.6	1.5	49	46	226	420	1300	WRE125	125×4
NNF5017-2LS-V	85	130	60	59	54.2	4.2	0.6	1.5	49	46	245	394	1200	WRE130	130×4
NNF5018-2LS-V	90	140	67	66	59.2	4.2	0.6	1.5	54	51	299	550	1100	WRE140	140×4
NNF5019-2LS-V	95	145	67	66	59.2	4.2	0.6	1.5	54	51	308	572	1050	WRE145	145×4
NNF5020-2LS-V	100	150	67	66	59.2	4.2	0.6	1.5	54	51	323	594	1000	WRE150	150×4
NNF5022-2LS-V	110	170	80	79	70.2	4.2	0.6	1.8	65	62	387	734	910	WRE170	170×4
NNF5024-2LS-V	120	180	80	79	71.2	4.2	0.6	1.8	65	63	402	799	850	WRE180	180×4
NNF5026-2LS-V	130	200	95	94	83.2	4.2	0.6	1.8	77	75	529	1036	770	WRE200	200×4
NNF5028-2LS-V	140	210	95	94	83.2	5.2	0.6	1.8	77	73	598	1188	710	WRE210	210×4
NNF5030-2LS-V	150	225	100	99	87.2	5.2	0.6	2	81	77	695	1360	670	WRE225	225×5
NNF5032-2LS-V	160	240	109	108	95.2	5.2	0.6	2	89	85	725	1460	630	WRE240	240×5
NNF5034-2LS-V	170	260	122	121	107.2	5.2	0.6	2	99	97	940	1890	590	WRE260	260×5
NNF5036-2LS-V	180	280	136	135	118.2	5.2	0.6	2	110	108	1110	2300	560	WRE280	280×5
NNF5038-2LS-V	190	290	136	135	118.2	5.2	0.6	2	110	108	1130	2380	530	WRE290	290×5
NNF5040-2LS-V	200	310	150	149	128.2	6.3	0.6	2	120	116	1320	2800	500	WRE310	310×6
NNF5044-2LS-V	220	340	160	159	138.2	6.3	1	2	130	126	1538	3290	450	WRE340	340×6
NNF5048-2LS-V	240	360	160	159	138.2	6.3	1	2	130	126	1590	3560	420	WRE360	360×6