

FOUR-ROW TAPERED ROLLER BEARINGS

Engineered for use in rolling mill roll-neck applications with high-radial and axial load capacity. Timken’s wide range of four-row tapered roller bearings are used extensively on flat product mills in work rolls, intermediate rolls and backup rolls, as well as in long product work rolls.

TQOW–2TDIW BEARINGS

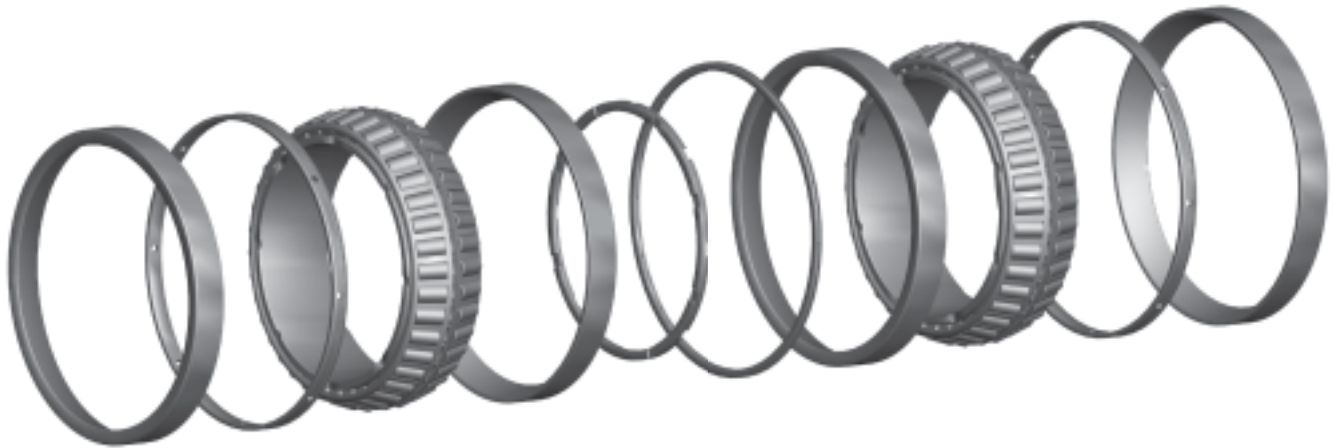


Fig. 43. 2TDIW bearing.

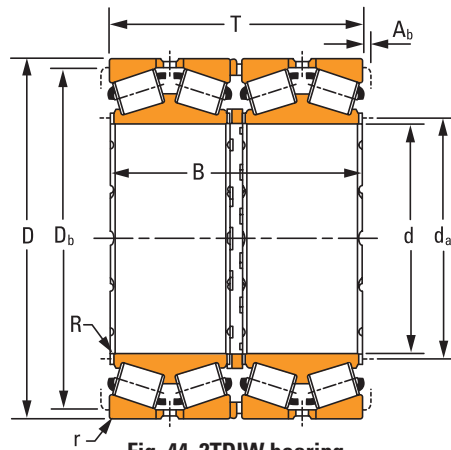


Fig. 44. 2TDIW bearing.

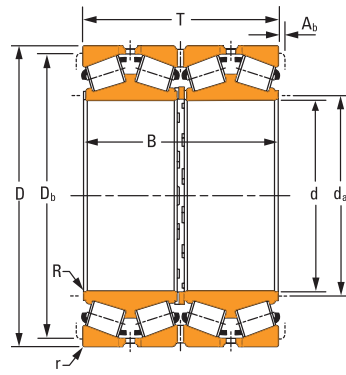
OVERALL DIMENSIONS:

- d – Bore diameter
- D – Outer diameter
- T – Width over cups
- B – Width over cones
- d_a – Cone backing diameter
- R – Max. shaft radius
- r – Max. housing radius
- D_b – Cup backing diameter
- A_b – Axial cage clearance

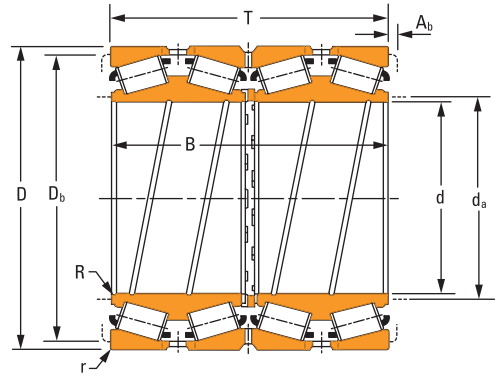
FOUR-ROW TAPERED ROLLER BEARING DESIGN TYPES TQ0W-2TDIW (LOOSE FIT MOUNTING)

TQ0W

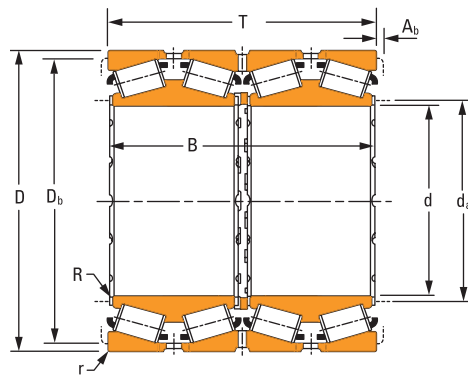
- Two double cones.
- Two single cups.
- One double cup.
- One cone spacer.
- Two cup spacers.
- TQ0 – cones without face slots.
- TQ0G – spiral groove on cone bore.
- TQ0W – cone face slots.
- TQ0GW – spiral groove on cone bore and cone face slots.
- TQ0GWE – two double cones with extended ribs, spiral groove on cone bores and cone face slots.



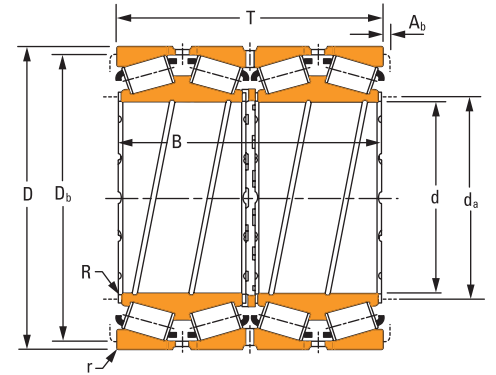
TQ0



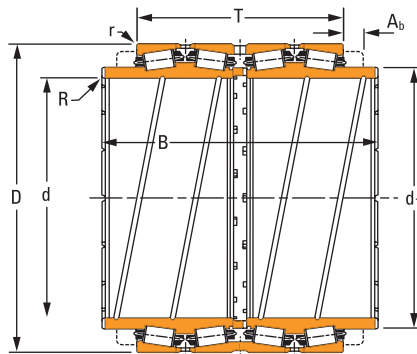
TQ0G



TQ0W



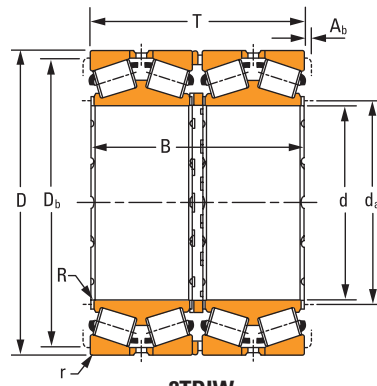
TQ0GW



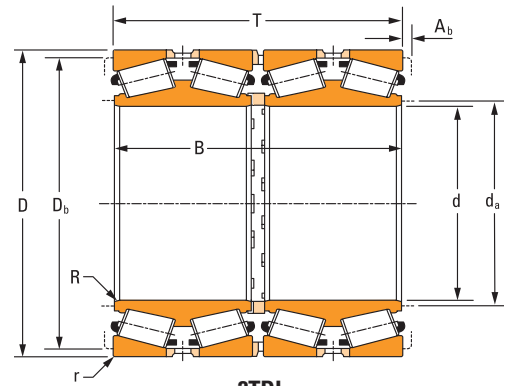
TQ0GWE

2TDIW

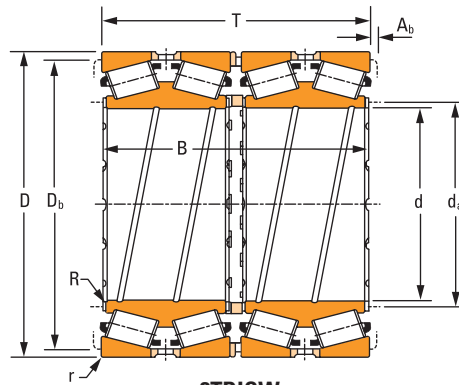
- Two double cones.
- Four single cups.
- One or no cone spacer.
- Two or three cup spacers.
- 2TDI – cone without face slots.
- 2TDIW – cone face slots.
- 2TDIGW – spiral groove on cone bore and cone face slots.
- 2TDIGWE – two double cones with extended ribs, spiral groove on cone bores and cone face slots.



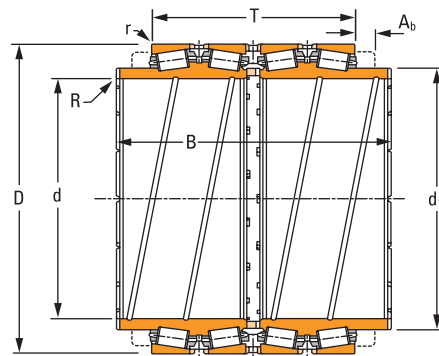
2TDIW



2TDI



2TDIGW



2TDIGWE

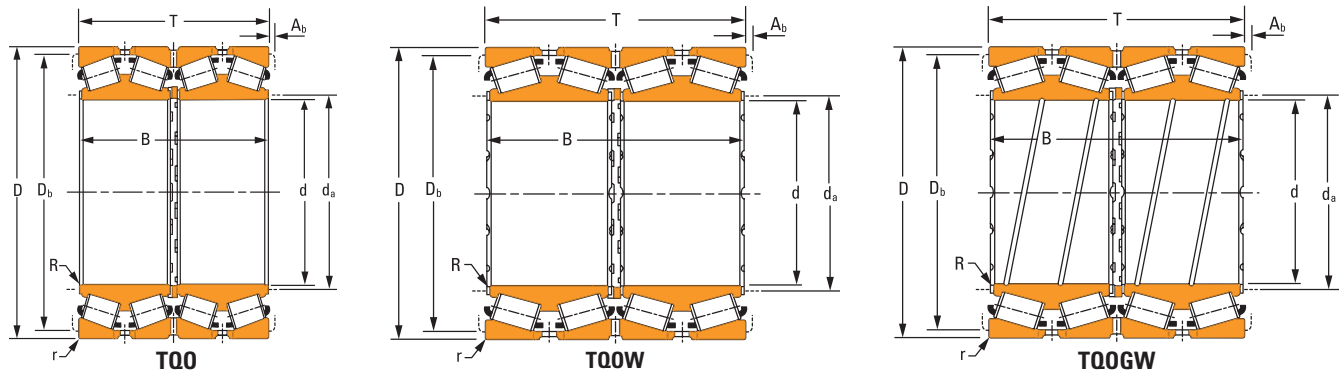
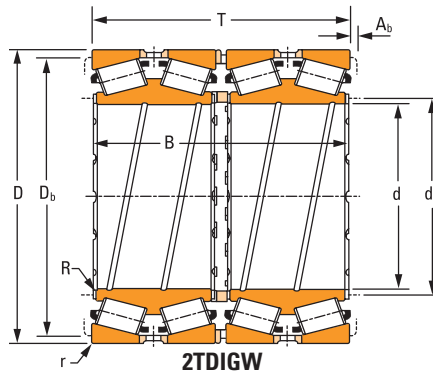
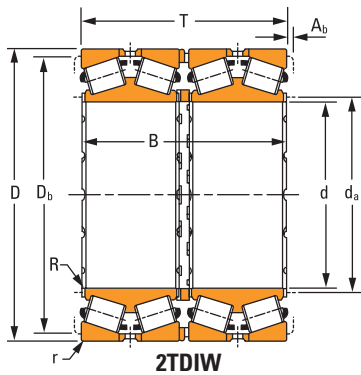


TABLE 53. TQOW – 2TDIW PRODUCT DATA

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₀₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
127.000 5.0000	182.562 7.1875	158.750 6.2500	158.750 6.2500	932 210000	0.31	2.20	3.28	69.4 15600	36.3 8160	242 54400	1.91
130.175 5.1250	196.850 7.7500	200.025 7.8750	200.025 7.8750	1280 288000	0.34	1.96	2.92	95.3 21400	56.1 12600	332 74600	1.70
136.525 5.3750	190.500 7.5000	161.925 6.3750	161.925 6.3750	984 222000	0.32	2.10	3.13	73.3 16500	40.3 9060	256 57400	1.82
139.700 5.5000	200.025 7.8750	160.340 6.3126	157.165 6.1876	998 224000	0.34	2.01	2.99	74.3 16700	42.8 9610	258 58200	1.74
139.700 5.5000	222.250 8.7500	127.000 5.0000	120.396 4.7400	1020 230000	0.44	1.55	2.30	75.9 17100	56.8 12800	264 59400	1.34
150 5.9055	210 8.2677	190 7.4803	190 7.4803	986 222000	0.35	1.94	2.89	73.4 16500	43.7 9810	256 57400	1.68
152.400 6.0000	222.250 8.7500	174.625 6.8750	174.625 6.8750	1312 294000	0.33	2.03	3.03	97.6 21900	55.6 12500	340 76400	1.76
152.400 6.0000	244.475 9.6250	187.325 7.3750	192.088 7.5625	1398 314000	0.35	1.92	2.85	104 23400	62.7 14100	362 81600	1.66
152.400 6.0000	298.450 11.7500	228.600 9.0000	231.775 9.1250	2400 540000	0.33	2.03	3.03	179 40200	102 22900	624 140200	1.76
165.100 6.5000	225.425 8.8750	168.276 6.6250	165.100 6.5000	1056 238000	0.38	1.75	2.61	78.6 17700	51.6 11600	274 61600	1.52
177.800 7.0000	247.650 9.7500	192.088 7.5625	192.088 7.5625	1332 300000	0.44	1.53	2.29	99.2 22300	74.6 16800	346 77600	1.33
177.800 7.0000	273.050 10.7500	234.947 9.2499	234.950 9.2500	1968 442000	0.53	1.28	1.91	147 33000	132 29600	510 114800	1.11
177.800 7.0000	285.750 11.2500	222.245 8.7498	222.250 8.7500	1706 384000	0.43	1.56	2.32	127 28600	94.2 21200	442 99400	1.35
177.800 7.0000	288.925 11.3750	263.525 10.3750	263.525 10.3750	2300 516000	0.47	1.44	2.15	171 38500	137 30800	596 134000	1.25
177.800 7.0000	288.925 11.3750	266.700 10.5000	266.700 10.5000	2860 644000	0.32	2.11	3.15	214 48000	117 26200	744 167200	1.83



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius	Cone Backing Diameter	Max. Housing Radius	Cup Backing Diameter	Axial Cage Clearance	
					R	da	r	Db	Ab	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
48290DW	48220	48220D	TQOW	S	1.5 0.06	137.0 5.39	3.3 0.13	168.0 6.61	2.3 0.09	14.0 31.0
67391DW	67322	67323D	TQOW	S	1.5 0.06	142.0 5.59	3.3 0.13	180.0 7.09	0.0 0.00	21.0 47.0
48393D	48320	48320D	TQO	S	1.5 0.06	144.0 5.67	3.3 0.13	177.0 6.97	2.0 0.08	14.0 31.0
48680DGW	48620	48620D	TQOGW	S	0.8 0.03	150.0 5.91	3.3 0.13	185.0 7.28	4.6 0.18	17.0 37.0
73550D	73875	73876CD	TQO	S	3.5 0.14	156.0 6.14	3.3 0.13	204.0 8.03	4.5 0.18	16.0 36.0
NP965846	NP711787	–	2TDIW	S	1.5 0.06	158.0 6.22	2.0 0.08	193.0 7.60	1.5 0.06	19.0 43.0
M231649D	M231610	M231610CD	TQO	S	1.5 0.06	164.5 6.48	1.5 0.06	207.0 8.15	2.3 0.09	23.0 50.0
81601D	81962	81963CD	TQO	S	1.5 0.06	166.1 6.54	3.3 0.13	225.0 8.86	3.2 0.13	31.0 69.0
EE517060D	517117	517118XD	TQO	S	3.3 0.13	175.0 6.89	3.3 0.13	272.0 10.71	4.1 0.16	71.0 157
46791DW	46720	46721D	TQOW	S	0.8 0.03	175.0 6.89	3.3 0.13	209.0 8.23	8.1 0.32	20.0 43.0
67791DGW	67720	–	2TDIGW	S	1.5 0.06	190.0 7.48	3.3 0.13	229.0 9.02	2.8 0.11	27.0 59.0
82681DGW	82622	82622D	TQOGW	S	1.5 0.06	195.0 7.68	3.3 0.13	249.0 9.80	3.9 0.15	48.0 106
EE91700D	91112	91113XD	TQO	S	1.5 0.06	190.0 7.48	3.3 0.13	261.0 10.28	1.3 0.05	51.0 113
94706D	94113	94114CD	TQO	S	1.5 0.06	195.0 7.68	3.3 0.13	259.0 10.20	6.3 0.25	63.0 139
HM237545D	HM237510	HM237511XD	TQO	S	1.5 0.06	194.0 7.64	3.3 0.13	266.0 10.47	2.0 0.08	66.0 145

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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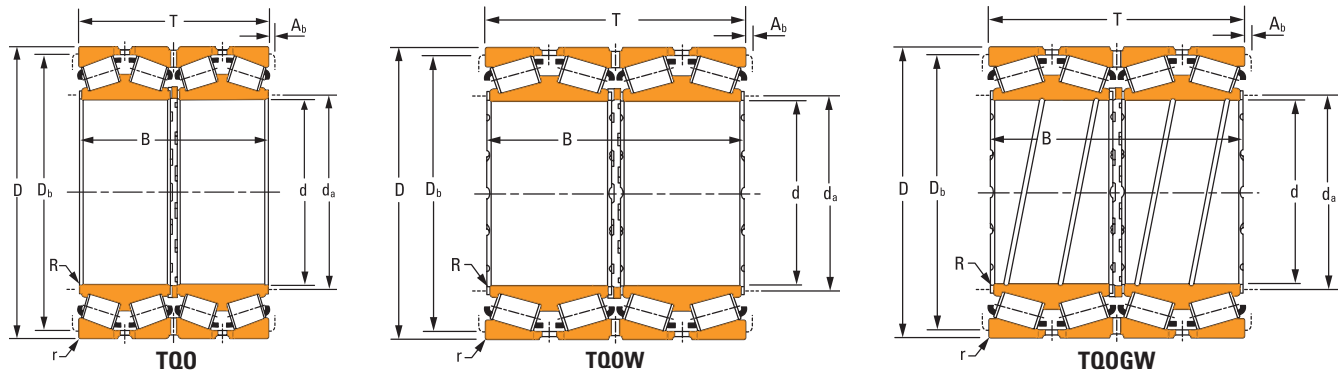
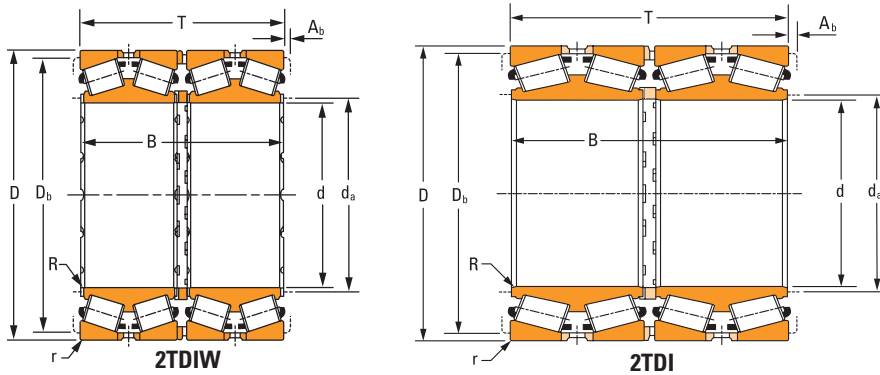


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
177.800 7.0000	304.800 12.0000	233.365 9.1876	238.227 9.3790	2100 472000	0.36	1.87	2.79	156 35100	96.4 21700	544 122400	1.62
177.800 7.0000	330.200 13.0000	234.950 9.2500	231.775 9.1250	2360 530000	0.38	1.75	2.61	176 39500	116 26000	612 137600	1.52
187.325 7.3750	269.875 10.6250	211.138 8.3125	211.138 8.3125	1910 430000	0.33	2.03	3.03	142 32000	80.9 18200	494 111200	1.76
190.500 7.5000	266.700 10.5000	188.914 7.4375	187.325 7.3750	1450 326000	0.48	1.41	2.10	108 24300	88.2 19800	376 84600	1.22
190.500 7.5000	368.300 14.5000	387.350 15.2500	381.000 15.0000	3840 864000	0.40	1.67	2.49	286 64300	197 44200	996 224000	1.45
198.438 7.8125	284.162 11.1875	225.425 8.8750	225.425 8.8750	1986 446000	0.33	2.03	3.03	148 33200	84.2 18900	514 115800	1.76
203.200 8.0000	317.500 12.5000	209.550 8.2500	209.550 8.2500	1838 414000	0.31	2.15	3.20	137 30800	73.0 16500	476 107200	1.86
203.200 8.0000	317.500 12.5000	222.247 8.7499	223.042 8.7812	1890 424000	0.49	1.38	2.06	141 31600	117 26300	490 110200	1.20
203.200 8.0000	317.500 12.5000	266.700 10.5000	266.700 10.5000	2540 572000	0.52	1.29	1.92	190 42600	170 38200	660 148400	1.12
203.200 8.0000	317.500 12.5000	336.550 13.2500	336.550 13.2500	2540 572000	0.52	1.29	1.92	190 42600	170 38200	660 148400	1.12
203.352 8.0060	298.450 11.7500	174.628 6.8751	174.628 6.8751	1492 336000	0.44	1.52	2.27	111 25000	84.2 18900	386 87000	1.32
206.375 8.1250	282.575 11.1250	190.500 7.5000	190.500 7.5000	1476 332000	0.51	1.33	1.98	110 24700	95.8 21500	382 86000	1.15
215.900 8.5000	355.600 14.0000	269.875 10.6250	273.050 10.7500	2640 594000	0.59	1.14	1.70	197 44200	199 44700	686 154000	0.99
215.900 8.5000	288.925 11.3750	177.800 7.0000	177.800 7.0000	1496 336000	0.48	1.39	2.08	111 25000	91.8 20600	388 87200	1.21
216.103 8.5080	330.200 13.0000	269.875 10.6250	263.525 10.3750	2380 536000	0.55	1.22	1.82	178 39900	168 37700	618 139000	1.06



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter da	Max. Housing Radius r	Cup Backing Diameter Db	Axial Cage Clearance Ab	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
EE280700D	281200	281201D	TQO	S	3.3 0.13	199.9 7.87	3.3 0.13	279.0 10.98	4.4 0.17	67.0 148
EE210700D	211300	211301XD	TQO	S	1.5 0.06	200.0 7.87	3.3 0.13	299.0 11.77	6.9 0.27	89.0 197
M238849DW	M238810	M238810D	TQOW	S	1.5 0.06	200.0 7.87	3.3 0.13	250.0 9.84	3.0 0.12	40.0 87.0
67885DW	67820	–	2TDIW	S	1.5 0.06	204.0 8.03	3.3 0.13	246.0 9.69	5.2 0.20	32.0 71.0
EE420750D	421450	–	2TDI	S	3.3 0.13	221.0 8.70	3.3 0.13	331.0 13.03	3.6 0.14	171 376
M240648DGW	M240611	M240611D	TQOW	S	1.5 0.06	212.1 8.35	3.3 0.13	263.9 10.39	3.3 0.13	46.0 102
EE132081D	132125	132126D	TQO	S	3.3 0.13	224.0 8.82	3.3 0.13	293.9 11.57	4.3 0.17	63.0 139
93580D	93520	93520XD	TQO	S	1.5 0.06	221.0 8.70	3.3 0.13	292.0 11.50	0.4 0.02	63.0 138
93800DGW	93125	93127CD	TQOGW	S	1.5 0.06	222.0 8.74	3.3 0.13	286.0 11.26	5.3 0.21	89.0 196
93801D	93125	–	2TDI	S	6.4 0.25	226.9 8.93	3.3 0.13	286.0 11.26	7.8 0.30	88.0 195
8976D	8920	8920XD	TQO	S	1.5 0.06	218.0 8.58	3.3 0.13	277.0 10.91	3.8 0.15	41.0 91.0
67986DGW	67920	67921D	TQOGW	S	0.8 0.03	223.0 8.78	3.3 0.13	260.0 10.24	0.0 0.00	34.0 76.0
96851DW	96140	96140CD	TQO	S	6.4 0.25	249.0 9.80	3.3 0.13	318.0 12.52	3.4 0.13	105 231
LM742749DW	LM742714	LM742714D	TQOW	S	2.3 0.09	229.4 9.03	3.3 0.13	267.0 10.51	3.0 0.12	33.0 72.0
9974DW	9920	9920D	TQOW	S	1.5 0.06	235.0 9.24	3.3 0.13	300.0 11.81	3.2 0.13	83.0 182

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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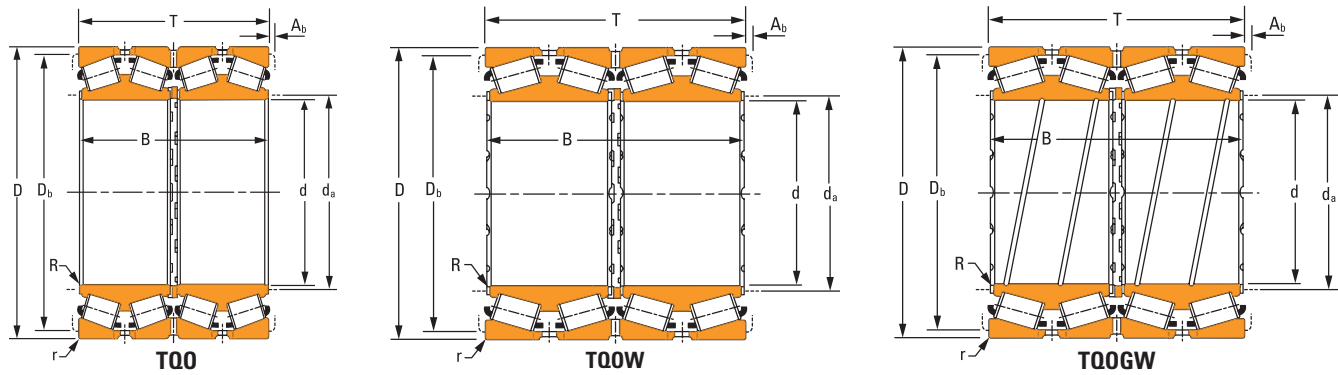
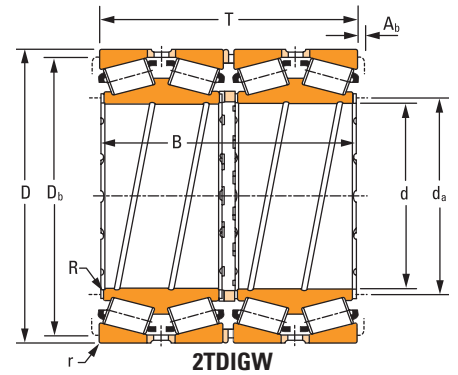
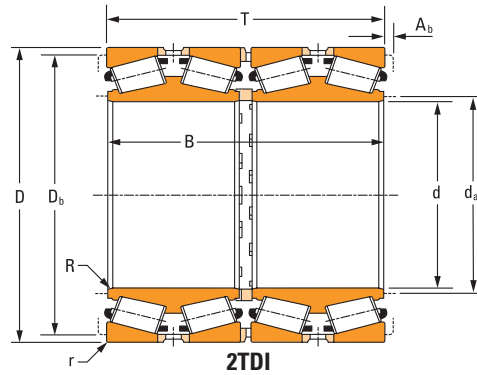
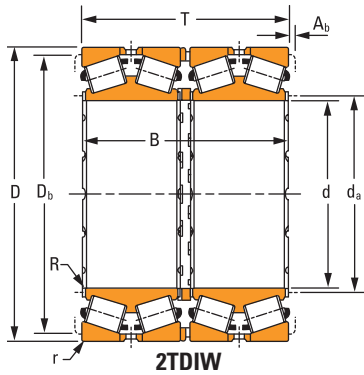


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₀₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
220 8.6614	340 13.3858	303.5 11.9488	303.5 11.9488	3980 892000	0.43	1.57	2.34	296 66500	218 48900	1030 232000	1.36
220.662 8.6875	314.325 12.3750	239.712 9.4375	239.712 9.4375	2420 544000	0.33	2.03	3.03	180 40500	103 23100	628 141000	1.76
228.600 9.0000	311.150 12.2500	200.025 7.8750	200.025 7.8750	1876 422000	0.33	2.03	3.03	140 31400	79.5 17900	486 109400	1.76
228.600 9.0000	355.600 14.0000	254.000 10.0000	254.000 10.0000	2780 624000	0.33	2.04	3.04	206 46400	117 26200	718 161600	1.77
228.600 9.0000	400.050 15.7500	296.875 11.6880	296.875 11.6880	3880 872000	0.31	2.18	3.25	289 64900	153 34300	1006 226000	1.89
228.600 9.0000	425.450 16.7500	361.950 14.2500	349.250 13.7500	5400 1216000	0.33	2.03	3.03	402 90500	229 51500	1402 316000	1.76
234.950 9.2500	327.025 12.8750	196.850 7.7500	196.850 7.7500	1836 412000	0.41	1.66	2.48	137 30700	95.2 21400	476 107000	1.44
234.950 9.2500	384.175 15.1250	457.995 18.0313	457.995 18.0313	6180 1388000	0.33	2.03	3.03	460 103000	262 58800	1600 360000	1.76
240 9.4488	338 13.3071	248 9.7638	248 9.7638	2840 636000	0.36	1.87	2.79	211 47400	130 29200	734 165200	1.62
240 9.4488	360 14.1732	308.5 12.1457	308.5 12.1457	4340 974000	0.46	1.46	2.18	323 72500	253 56900	1124 252000	1.27
241.478 9.5070	349.148 13.7460	228.600 9.0000	228.600 9.0000	2300 516000	0.35	1.90	2.84	171 38500	103 23300	596 134000	1.65
243.975 9.6053	329.949 12.9901	245.999 9.6850	245.999 9.6850	2260 510000	0.32	2.10	3.13	169 37900	92.7 20800	588 132000	1.82
244.475 9.6250	327.025 12.8750	193.675 7.6250	193.675 7.6250	1974 444000	0.32	2.10	3.13	147 33000	80.8 18200	512 115000	1.82
244.475 9.6250	381.000 15.0000	304.800 12.0000	304.800 12.0000	3160 710000	0.52	1.30	1.94	235 52900	208 46800	820 184200	1.13
247.650 9.7500	406.400 16.0000	446.532 17.5800	447.878 17.6330	6840 1538000	0.33	2.03	3.03	509 115000	290 65200	1774 398000	1.76



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius	Cone Backing Diameter	Max. Housing Radius	Cup Backing Diameter	Axial Cage Clearance	
			R	d _a	r	D _b	A _b			
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
NP881565	NP552013	–	2TDIW	S	1.5 0.06	241.0 9.49	3.0 0.12	312.0 12.28	5.3 0.21	98.0 217
M244249DGW	M244210	M244210CD	TQ0GW	S	1.5 0.06	235.0 9.25	3.3 0.13	293.0 11.54	3.6 0.14	59.0 129
LM245149DGW	LM245110	LM245110D	TQ0GW	S	1.5 0.06	242.0 9.53	3.3 0.13	293.0 11.54	3.6 0.14	42.0 93.0
EE130901D	131400	131401CD	TQ0W	S	5.5 0.22	255.0 10.04	1.5 0.06	329.0 12.95	4.6 0.18	89.0 197
EE529090DW	529157	529158XD	TQ0W	S	3.3 0.13	256.0 10.08	3.3 0.13	367.0 14.45	3.0 0.12	154 339
EE700090D	700167	700168D	TQ0	S	3.5 0.14	259.0 10.20	6.4 0.25	381.0 15.00	3.2 0.13	226 498
8576DW	8520	8520CD	TQ0W	S	1.5 0.06	250.0 9.84	3.3 0.13	305.0 12.01	3.3 0.13	50.0 110
H247549D	H247510	–	2TDI	S	1.5 0.06	259.0 10.20	6.4 0.25	346.0 13.62	4.1 0.16	206 454
JM447749DW	JM447710	JM447710D	TQ0W	S	4.0 0.16	261.0 10.28	3.3 0.13	317.0 12.48	7.5 0.28	70.0 154
NP461520	NP464023	NP467114	TQ0W	S	4.0 0.16	260.0 10.24	3.3 0.13	328.0 12.91	5.3 0.21	111 245
EE127097DW	127135	127136CD	TQ0W	S	1.5 0.06	258.0 10.16	3.3 0.13	325.0 12.80	2.8 0.11	70.0 155
LM247747DGW	LM247714	–	2TDIGW	S	4.3 0.17	262.0 10.30	3.3 0.13	312.0 12.28	0.0 0.00	52.0 114
LM247748DGW	LM247710	–	2TDIGW	S	1.5 0.06	257.0 10.12	3.3 0.13	310.0 12.20	4.1 0.16	44.0 96.0
EE126096DGW	126150	126151CD	TQ0GW	S	3.3 0.13	269.0 10.59	4.8 0.19	343.0 13.50	0.3 0.01	126 277
HH249949D	HH249910	–	2TDI	P	3.3 0.13	278.0 10.94	6.4 0.25	366.0 14.41	8.2 0.32	246 543

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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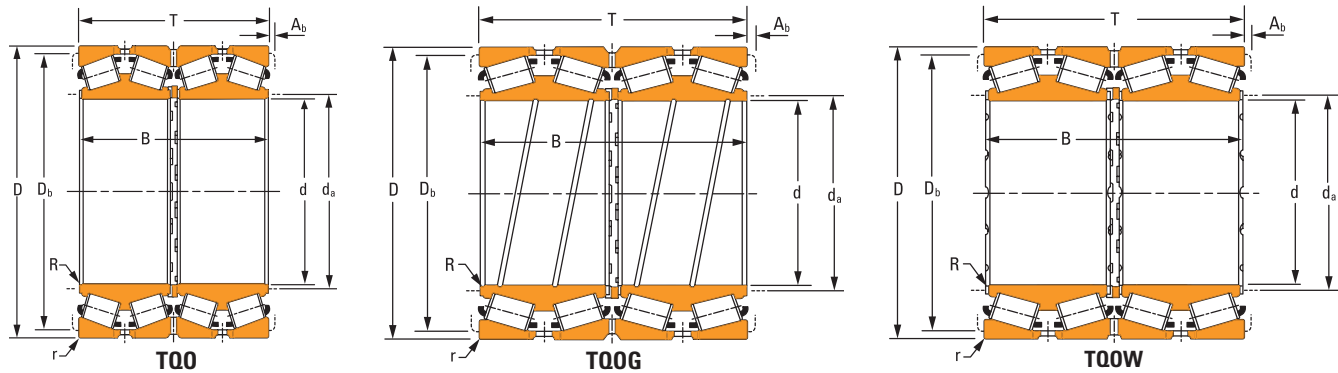
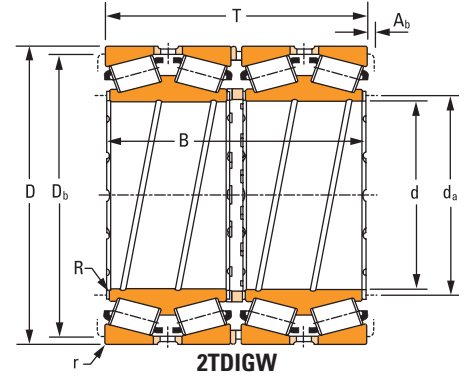
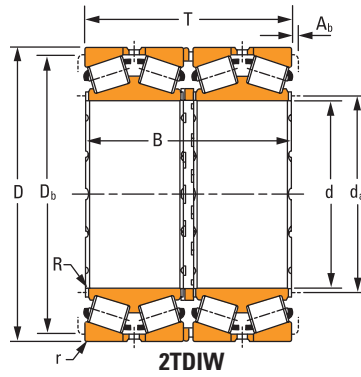
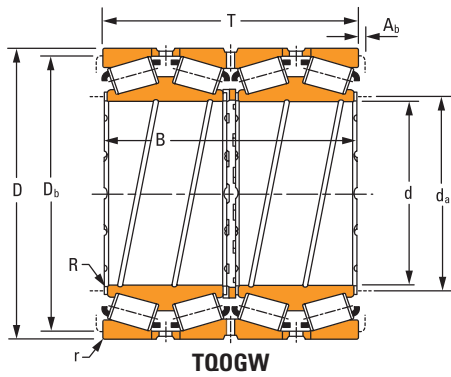


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore	O.D.	Width over Cups	Width over Cones	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial	e	Y ₁	Y ₂	Dynamic Radial	Dynamic Axial	Dynamic Radial	
d	D	T	B	C ₁₍₄₎				C ₉₀	C _{a90}	C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
250.283 9.8537	339.938 13.3834	230 9.0551	230 9.0551	2840 640000	0.31	2.18	3.25	212 47600	112 25200	738 165800	1.89
250.825 9.8750	431.724 16.9970	298.453 11.7501	292.895 11.5313	5220 1174000	0.33	2.03	3.03	389 87400	221 49700	1354 304000	1.76
254.000 10.0000	358.775 14.1250	269.875 10.6250	269.875 10.6250	3180 716000	0.33	2.03	3.03	237 53300	135 30300	826 185600	1.76
254.000 10.0000	444.500 17.5000	279.400 11.0000	279.400 11.0000	4100 920000	0.34	1.97	2.94	305 68500	178 40000	1062 238000	1.71
260 10.2362	440 17.3228	300 11.8110	300 11.8110	4520 1016000	0.69	0.98	1.46	336 75600	397 89100	1170 264000	0.85
260.350 10.2500	365.125 14.3750	228.600 9.0000	228.600 9.0000	2360 532000	0.37	1.80	2.68	176 39600	113 25400	614 137800	1.56
260.350 10.2500	400.050 15.7500	253.995 9.9998	249.235 9.8124	2880 648000	0.39	1.71	2.54	215 48200	145 32600	748 168000	1.48
260.350 10.2500	406.400 16.0000	317.500 12.5000	314.325 12.3750	4080 918000	0.33	2.02	3.01	304 68300	173 39000	1058 238000	1.75
260.350 10.2500	419.100 16.5000	330.200 13.0000	327.025 12.8750	3920 880000	0.60	1.12	1.67	291 65500	302 67800	1014 228000	0.97
266.700 10.5000	355.600 14.0000	228.600 9.0000	230.188 9.0625	2800 630000	0.36	1.87	2.79	209 46900	129 28900	726 163200	1.62
266.700 10.5000	406.400 16.0000	260.355 10.2502	268.290 10.5626	3080 690000	0.40	1.67	2.49	229 51400	157 35400	796 179200	1.45
269.875 10.6250	381.000 15.0000	282.575 11.1250	282.575 11.1250	4000 900000	0.33	2.03	3.03	298 67000	170 38100	1038 234000	1.76
276.225 10.8750	381.000 15.0000	209.550 8.2500	187.325 7.3750	1612 362000	0.58	1.15	1.72	120 27000	120 26900	418 94000	1.00
276.225 10.8750	393.700 15.5000	269.878 10.6251	269.878 10.6251	3080 690000	0.40	1.67	2.49	229 51400	157 35400	796 179200	1.45
279.400 11.0000	393.700 15.5000	270.078 10.6330	269.875 10.6250	4140 930000	0.43	1.57	2.34	308 69200	226 50900	1072 242000	1.36



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
NP872981	NP240622	NP560475	TQOW	S	3.5 0.14	266.0 10.47	4.0 0.16	320.0 12.60	4.3 0.17	59.0 131
HM252340D	HM252315	HM252315D	TQO	S	3.5 0.14	278.0 10.94	3.5 0.14	397.0 15.63	6.5 0.26	170 374
M249748DGW	M249710	–	2TDIGW	S	3.3 0.13	272.0 10.71	3.3 0.13	335.0 13.19	4.3 0.17	86.0 189
EE822101D	822175	822176D	TQO	P	3.3 0.13	281.9 11.10	6.4 0.25	404.9 15.94	6.8 0.27	186 410
NP639186	NP980566	NP423191	TQOW	S	3.0 0.12	297.0 11.69	6.0 0.24	396.0 15.59	5.1 0.20	176 387
EE134102D	134143	134144CD	TQO	S	3.3 0.13	280.0 11.02	6.4 0.25	339.0 13.35	3.0 0.12	71.0 156
EE221025D	221575	221576CD	TQO	S	6.4 0.25	290.0 11.42	6.4 0.25	366.0 14.41	7.7 0.30	109 240
EE324103D	324160	324161D	TQO	S	6.4 0.25	287.3 11.31	3.3 0.13	376.0 14.80	3.2 0.13	152 336
EE435103D	435165	435165D	TQO	S	3.3 0.13	289.0 11.38	3.3 0.13	376.0 14.80	4.9 0.19	174 384
LM451349DGW	LM451310	–	2TDIGW	S	1.5 0.06	280.9 11.06	3.3 0.13	335.0 13.19	4.6 0.18	61.0 135
EE275106D	275160	275161D	TQO	S	3.3 0.13	290.0 11.42	6.4 0.25	373.0 14.69	4.8 0.19	115 255
M252349DW	M252310	M252310CD	TQOW	S	3.3 0.13	290.0 11.42	3.3 0.13	356.0 14.02	4.8 0.19	101 222
89108D	89150	89151XD	TQO	S	3.3 0.13	297.0 11.69	6.4 0.25	348.0 13.70	3.2 0.13	67.0 147
EE275109DGW	275155	275156CD	TQOGW	S	1.5 0.06	293.6 11.56	6.4 0.25	366.0 14.41	0.8 0.03	102 224
M652949DW	M652911	–	2TDIW	S	2.0 0.08	294.0 11.57	6.4 0.25	368.0 14.49	7.4 0.29	96.0 211

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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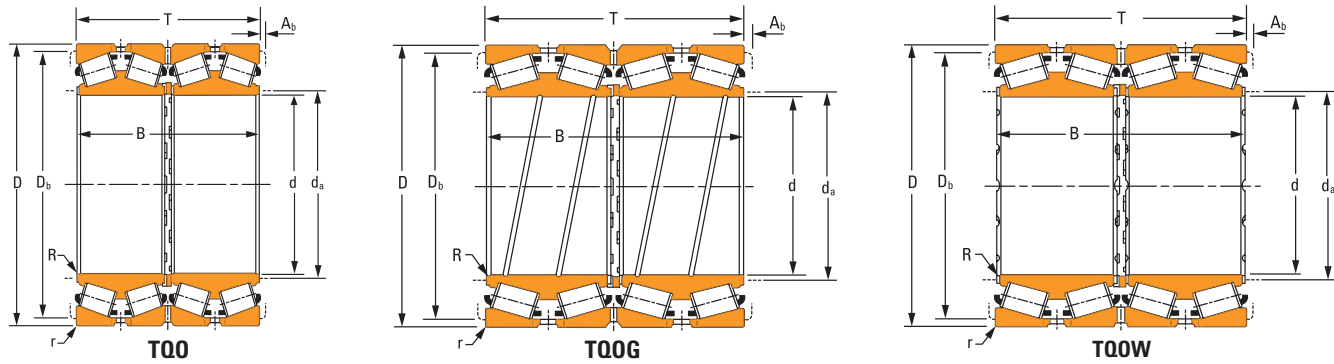
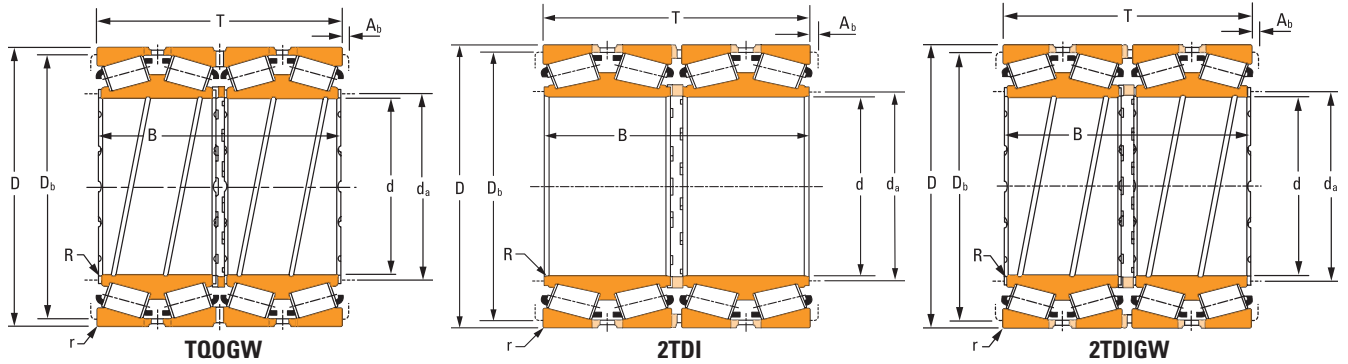


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
279.400 11.0000	393.700 15.5000	269.875 10.6250	269.875 10.6250	3040 684000	0.38	1.78	2.65	226 50900	148 33200	788 177200	1.54
279.400 11.0000	457.200 18.0000	536.778 21.1330	536.575 21.1250	9120 2040000	0.33	2.03	3.03	679 153000	386 86800	2360 532000	1.76
279.400 11.0000	469.900 18.5000	349.250 13.7500	346.075 13.6250	5620 1262000	0.38	1.79	2.66	418 94000	271 60800	1456 328000	1.55
279.400 11.0000	495.300 19.5000	384.175 15.1250	381.160 15.0063	5400 1214000	0.40	1.67	2.49	402 90300	277 62200	1400 314000	1.45
280 11.0236	420 16.5354	280 11.0236	280 11.0236	4440 1000000	0.49	1.38	2.06	331 74400	276 62100	1152 260000	1.20
280.316 11.0361	389.938 15.3519	275 10.8268	275 10.8268	4080 918000	0.33	2.03	3.03	304 68300	173 38900	1058 238000	1.76
285.750 11.2500	380.898 14.9960	244.475 9.6250	244.475 9.6250	2520 566000	0.43	1.56	2.32	187 42100	138 31100	652 146600	1.35
288.925 11.3750	406.400 16.0000	298.450 11.7500	298.450 11.7500	4140 932000	0.34	2.00	2.97	308 69300	179 40100	1074 242000	1.73
292.100 11.5000	422.275 16.6250	269.875 10.6250	269.875 10.6250	3780 852000	0.32	2.11	3.15	282 63400	154 34700	982 220000	1.83
292.100 11.5000	476.250 18.7500	292.100 11.5000	296.047 11.6554	5260 1182000	0.29	2.31	3.44	391 88000	196 44000	1362 306000	2.00
294.975 11.6132	389.898 15.3503	220.000 8.6614	260.000 10.2362	2940 660000	0.33	2.03	3.03	218 49100	124 27900	760 171000	1.76
298.450 11.7500	444.500 17.5000	241.300 9.5000	238.125 9.3750	3080 694000	0.38	1.79	2.66	230 51700	149 33400	800 180000	1.55
299.975 11.8100	439.948 17.3208	279.400 11.0000	280.988 11.0625	3120 702000	0.42	1.61	2.41	232 52200	165 37200	810 182000	1.40
300 11.8110	460 18.1102	388.5 15.2953	388.5 15.2953	5480 1232000	0.31	2.20	3.28	408 91700	213 47900	1420 320000	1.91
300.038 11.8125	422.275 16.6250	311.150 12.2500	311.150 12.2500	4520 1016000	0.34	2.00	2.97	336 75600	194 43600	1172 264000	1.73



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
EE135111DGW	135155	135156D	TQOGW	S	1.5 0.06	297.0 11.69	6.4 0.25	368.0 14.49	1.8 0.07	98.0 215
HH255149D	HH255110	–	2TDI	P	1.5 0.06	309.0 12.17	6.4 0.25	412.0 16.22	12.7 0.50	355 783
EE722111D	722185	722186CD	TQO	S	6.4 0.25	314.0 12.36	3.3 0.13	430.0 16.93	3.6 0.14	232 512
EE941106D	941950	–	2TDI	p	1.5 0.06	310.0 12.20	3.3 0.13	459.0 18.07	11.0 0.43	312 689
NP636921	NP371486	NP980520	TQOW	S	3.6 0.14	302.0 11.89	4.5 0.18	389.0 15.31	5.1 0.20	131 288
NP419087	NP501430	NP279609	TQOW	S	3.5 0.14	302.0 11.89	3.5 0.14	366.0 14.41	5.8 0.23	99.0 218
LM654648DW	LM654610	LM654610CD	TQOW	S	1.5 0.06	302.0 11.89	3.3 0.13	356.0 14.02	2.0 0.08	78.0 172
M255449DGW	M255410	–	2TDIGW	P	3.3 0.13	310.0 12.20	3.3 0.13	379.0 14.90	7.5 0.29	124 274
EE330116D	330166	330167D	TQO	P	6.4 0.25	314.2 12.37	3.3 0.13	395.0 15.55	4.6 0.18	124 274
EE921150D	921875	921876D	TQO	P	1.5 0.06	314.0 12.36	3.3 0.13	442.0 17.40	8.2 0.32	198 436
LM255749DGW	LM255710	–	2TDIGW	S	4.3 0.17	313.0 12.32	3.3 0.13	370.0 14.57	20.0 0.79	71.0 157
EE291176D	291750	291751CD	TQO	S	8.0 0.31	332.0 13.07	1.5 0.06	416.0 16.38	10.2 0.40	122 270
EE129119DG	129174	129175XD	TQOG	S	3.3 0.13	321.0 12.64	4.8 0.19	407.0 16.02	0.8 0.03	140 309
NP549475	NP695911	NP075542	TQOW	S	4.0 0.16	330.0 12.99	4.0 0.16	424.0 16.69	4.8 0.19	241 531
HM256849DW	HM256810	HM256810CD	TQOW	P	3.3 0.13	322.0 12.68	3.3 0.13	394.0 15.51	7.0 0.28	140 309

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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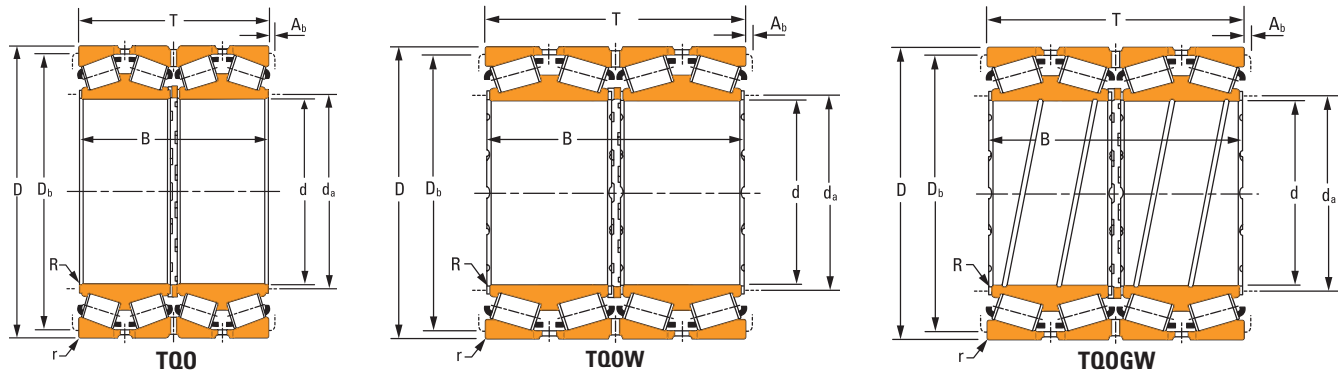
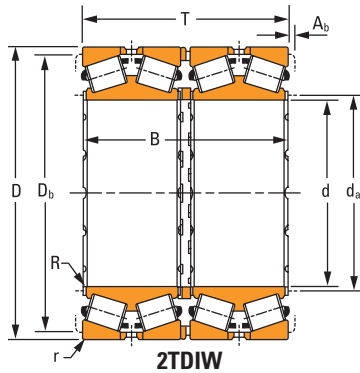


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₀₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
304.648 11.9940	438.048 17.2460	279.400 11.0000	279.400 11.0000	3760 844000	0.33	2.03	3.03	280 62900	159 35700	974 220000	1.76
304.648 11.9940	438.048 17.2460	279.400 11.0000	280.990 11.0626	3820 860000	0.47	1.43	2.13	285 64000	231 51800	992 222000	1.24
304.800 12.0000	419.100 16.5000	269.875 10.6250	269.875 10.6250	4160 936000	0.33	2.03	3.03	310 69700	176 39700	1080 242000	1.76
304.800 12.0000	495.300 19.5000	349.250 13.7500	342.900 13.5000	5880 1320000	0.40	1.67	2.49	437 98300	301 67700	1524 342000	1.45
304.800 12.0000	501.650 19.7500	336.547 13.2499	336.550 13.2500	6240 1404000	0.33	2.03	3.03	465 105000	265 59500	1618 364000	1.76
304.902 12.0040	412.648 16.2460	266.700 10.5000	266.699 10.4990	3880 874000	0.32	2.11	3.15	289 65000	158 35500	1008 226000	1.83
310 12.2047	400 15.7480	300 11.8110	300 11.8110	3760 846000	0.32	2.10	3.13	280 63000	154 34600	976 220000	1.82
317.500 12.5000	422.275 16.6250	269.875 10.6250	269.876 10.6250	3440 772000	0.32	2.11	3.15	256 57500	140 31400	890 200000	1.83
317.500 12.5000	447.675 17.6250	327.025 12.8750	327.025 12.8750	4600 1034000	0.34	2.01	2.99	342 76900	196 44100	1192 268000	1.74
317.500 12.5000	447.675 17.6250	327.025 12.8750	327.025 12.8750	5840 1312000	0.34	2.01	2.99	435 97800	249 56000	1514 340000	1.74
317.500 12.5000	647.700 25.5000	419.100 16.5000	409.194 16.1100	10440 2340000	0.28	2.42	3.61	777 175000	370 83200	2700 608000	2.10
330.200 13.0000	444.500 17.5000	301.625 11.8750	301.625 11.8750	4260 958000	0.33	2.03	3.03	317 71400	181 40600	1106 248000	1.76
330.200 13.0000	482.600 19.0000	311.150 12.2500	306.387 12.0625	4360 978000	0.39	1.72	2.56	324 72900	217 48700	1128 254000	1.49
330.302 13.0040	438.023 17.2450	254.000 10.0000	247.650 9.7500	2560 574000	0.46	1.46	2.18	190 42800	149 33600	662 149000	1.27
333.375 13.1250	469.900 18.5000	342.900 13.5000	342.900 13.5000	5560 1252000	0.34	2.01	2.99	415 93200	238 53400	1444 324000	1.74



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
EE329119D	329172	329173D	TQO	S	3.3 0.13	327.0 12.87	3.3 0.13	410.0 16.14	3.8 0.15	131 289
M757448DGW	M757410	M757410D	TQOGW	S	3.3 0.13	328.0 12.91	4.8 0.19	407.0 16.02	8.5 0.34	131 289
M257149DW	M257110	M257110D	TQOW	S	1.5 0.06	322.0 12.68	6.4 0.25	392.0 15.43	4.6 0.18	107 237
EE724121D	724195	724196CD	TQO	S	3.3 0.13	334.0 13.15	6.4 0.25	450.0 17.72	3.8 0.15	254 559
HM258949D	HM258910	HM258910D	TQO	P	3.3 0.13	332.0 13.07	6.4 0.25	464.0 18.27	8.4 0.33	268 592
M257248DGW	M257210	M257210D	TQOGW	S	3.3 0.13	325.0 12.80	3.3 0.13	388.0 15.28	6.8 0.27	105 231
NP218100	NP394908	NP087208	TQOW	S	2.5 0.10	326.0 12.83	4.0 0.16	377.0 14.84	0.0 0.00	93.0 206
LM258648DGW	LM258610	LM258610D	TQOGW	S	1.5 0.06	334.0 13.15	3.3 0.13	398.0 15.67	3.6 0.14	104 230
HM259047DGW	HM259010	HM259010D	TQOGW	S	3.3 0.13	340.0 13.39	3.3 0.13	418.0 16.46	10.1 0.40	162 357
HM259049DW	HM259010	HM259010CD	TQOW	P	3.3 0.13	340.0 13.39	3.3 0.13	418.0 16.46	10.1 0.40	167 369
EE141250D	142551	142550XD	TQO	P	1.5 0.06	350.0 13.78	3.3 0.13	600.0 23.62	15.4 0.61	633 1396
M260149DW	M260110	M260110D	TQOW	P	3.3 0.13	351.0 13.82	3.3 0.13	418.0 16.46	10.0 0.39	135 297
EE526131D	526190	526191D	TQO	S	1.5 0.06	351.0 13.82	3.3 0.13	449.0 17.68	3.2 0.13	169 372
EE138131D	138172	138173XD	TQO	S	1.5 0.06	347.0 13.66	3.3 0.13	412.0 16.22	3.2 0.13	98.0 217
HM261049DW	HM261010	–	2TDIW	P	3.3 0.13	357.0 14.06	3.3 0.13	439.0 17.28	9.6 0.37	194 428

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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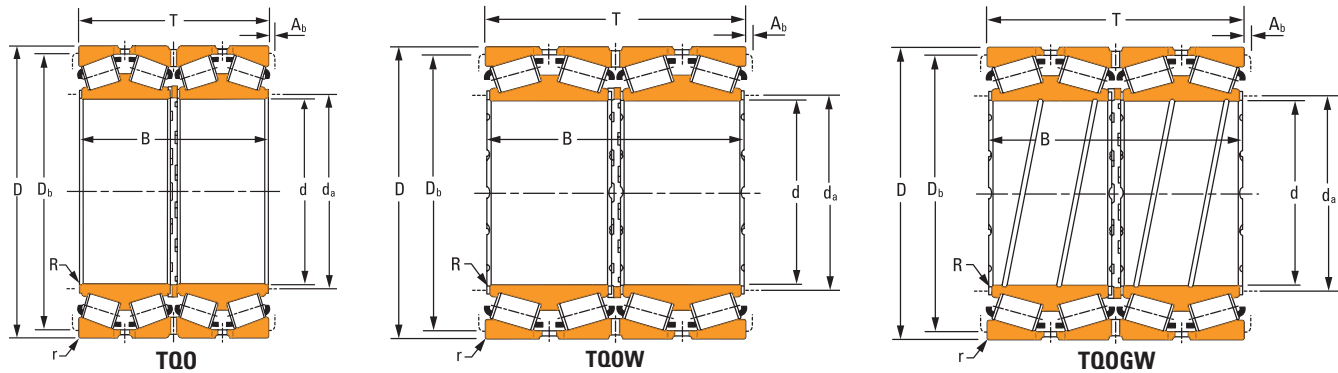
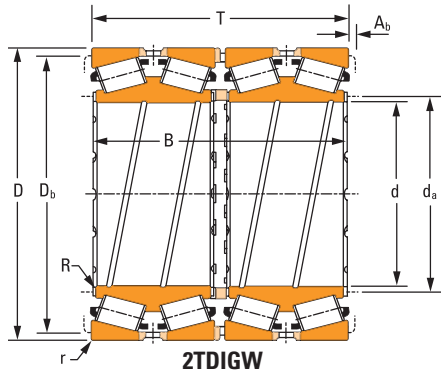


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
342.900 13.5000	533.400 21.0000	301.625 11.8750	307.975 12.1250	6020 1352000	0.33	2.03	3.03	448 101000	255 57300	1560 350000	1.76
342.900 13.5000	571.500 22.5000	342.900 13.5000	342.900 13.5000	6820 1534000	0.34	2.01	2.99	508 114000	292 65700	1770 398000	1.74
342.900 13.5000	457.098 17.9960	254.000 10.0000	254.000 10.0000	2860 644000	0.71	0.94	1.41	213 48000	260 58500	742 167000	0.82
343.052 13.5060	457.098 17.9960	254.000 10.0000	254.000 10.0000	3660 822000	0.47	1.43	2.13	237 53400	192 43200	826 185800	1.24
343.052 13.5060	457.098 17.9960	254.000 10.0000	254.000 10.0000	3660 822000	0.47	1.43	2.13	272 61200	220 49600	948 214000	1.24
346.075 13.6250	457.098 17.9960	254.000 10.0000	254.000 10.0000	2420 546000	0.48	1.41	2.10	181 40700	149 33400	630 141600	1.22
346.075 13.6250	488.950 19.2500	358.775 14.1250	358.775 14.1250	6900 1552000	0.34	2.01	2.99	514 116000	295 66200	1790 402000	1.74
347.662 13.6875	469.900 18.5000	260.350 10.2500	260.350 10.2500	4120 926000	0.33	2.03	3.03	307 68900	175 39200	1068 240000	1.76
347.662 13.6875	469.900 18.5000	292.100 11.5000	292.100 11.5000	4980 1122000	0.33	2.03	3.03	372 83500	212 47500	1294 290000	1.76
355.600 14.0000	444.500 17.5000	241.300 9.5000	241.300 9.5000	2560 574000	0.31	2.19	3.27	190 42700	100 22500	662 148800	1.90
355.600 14.0000	457.200 18.0000	252.412 9.9375	252.412 9.9375	3280 736000	0.32	2.11	3.15	244 54900	133 29900	850 191000	1.83
355.600 14.0000	482.600 19.0000	269.875 10.6250	265.113 10.4375	3740 840000	0.47	1.43	2.13	278 62500	225 50600	968 218000	1.24
355.600 14.0000	482.600 19.0000	269.878 10.6251	265.113 10.4375	3060 690000	0.42	1.60	2.39	229 51400	165 37100	796 179000	1.39
355.600 14.0000	488.950 19.2500	317.500 12.5000	317.500 12.5000	5260 1182000	0.33	2.03	3.03	391 88000	223 50100	1362 306000	1.76
355.600 14.0000	501.650 19.7500	260.350 10.2500	244.475 9.6250	3660 824000	0.44	1.53	2.29	273 61300	206 46200	950 214000	1.33



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
EE971355D	972100	972103D	TQO	P	3.3 0.13	370.0 14.57	3.3 0.13	501.0 19.72	11.3 0.45	252 555
EE536136D	536225	536226D	TQO	P	3.3 0.13	373.9 14.72	6.4 0.25	528.1 20.79	12.8 0.50	109 241
LM961549DW	LM961510	LM961510XD	TQOW	S	1.5 0.06	361.8 14.25	3.3 0.13	423.0 16.65	3.0 0.12	115 254
LM761649DW	LM761610	LM761610D	TQOW	S	1.5 0.06	361.0 14.21	3.3 0.13	432.0 17.01	1.8 0.07	111 243
LM761649DGW	LM761610	–	2TDIGW	S	1.5 0.06	361.0 14.21	3.3 0.13	432.0 17.01	1.8 0.07	111 243
EE133137D	133180	133181D	TQO	S	1.5 0.06	363.0 14.29	3.3 0.13	430.0 16.93	0.8 0.03	105 231
HM262749DGW	HM262710	HM262710CD	TQOGW	P	3.3 0.13	368.0 14.49	3.3 0.13	456.0 17.95	9.8 0.39	224 493
LM262449DW	LM262410	LM262410D	TQOW	P	1.5 0.06	365.0 14.37	3.3 0.13	444.0 17.48	10.2 0.40	130 286
M262449DW	M262410	M262410D	TQOW	S	3.3 0.13	369.0 14.53	3.3 0.13	443.0 17.44	6.3 0.25	145 319
L163149D	L163110	L163110CD	TQO	S	1.5 0.06	370.0 14.57	3.3 0.13	422.0 16.61	2.0 0.08	85.0 187
LM263149DW	LM263110	LM263110D	TQOW	S	1.5 0.06	372.0 14.65	3.3 0.13	434.0 17.09	4.8 0.19	105 231
LM763449DGW	LM763410	LM763410D	TQOGW	S	1.5 0.06	375.0 14.76	3.3 0.13	453.0 17.83	4.4 0.17	135 298
EE204140D	204190	204191D	TQO	S	1.5 0.06	374.0 14.72	3.3 0.13	455.0 17.91	3.2 0.13	133 293
M263349DGW	M263310	–	2TDIGW	P	1.5 0.06	374.0 14.72	3.3 0.13	459.0 18.07	8.9 0.35	180 397
EE231401D	231975	231976CD	TQO	S	3.3 0.13	382.0 15.04	3.3 0.13	472.0 18.58	3.2 0.13	154 332

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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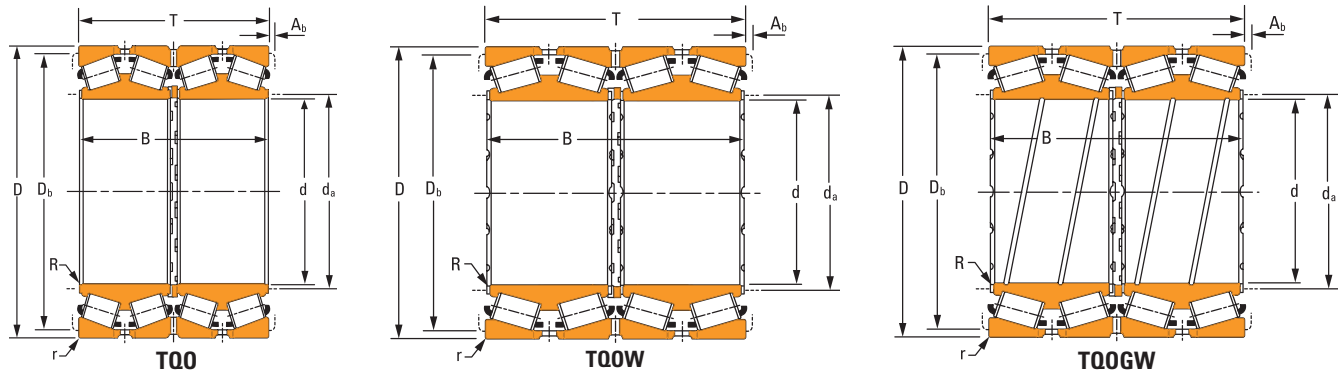
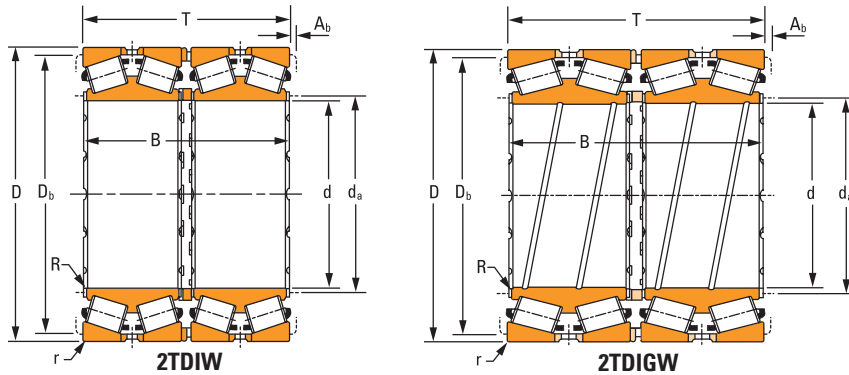


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
356.387 14.0310	482.600 19.0000	222.250 8.7500	219.075 8.6250	1908 428000	0.50	1.35	2.01	142 31900	122 27400	494 111200	1.17
368.300 14.5000	523.875 20.6250	382.588 15.0625	382.588 15.0625	7920 1780000	0.33	2.03	3.03	589 132000	335 75400	2060 462000	1.76
368.300 14.5000	596.900 23.5000	342.900 13.5000	336.550 13.2500	6180 1388000	0.41	1.63	2.42	460 103000	326 73400	1602 360000	1.41
374.650 14.7500	501.650 19.7500	260.350 10.2500	250.825 9.8750	3720 834000	0.47	1.43	2.13	276 62100	224 50300	962 216000	1.24
380 14.9606	560 22.0472	360 14.1732	360 14.1732	6629 1497700	0.36	1.87	2.79	494 111000	305 68500	1722 388000	1.62
380 14.9606	620 24.4094	386.5 15.2166	386.5 15.2166	7920 1782000	0.41	1.64	2.44	590 133000	417 93700	2060 462000	1.42
384.175 15.1250	546.100 21.5000	400.050 15.7500	400.050 15.7500	7900 1774000	0.33	2.03	3.03	588 132000	335 75200	2040 460000	1.76
385.762 15.1875	514.350 20.2500	317.500 12.5000	317.500 12.5000	4720 1060000	0.42	1.61	2.41	351 78900	251 56500	1222 274000	1.40
393.700 15.5000	546.100 21.5000	288.925 11.3750	268.288 10.5625	3780 850000	0.47	1.42	2.11	282 63300	230 51600	980 220000	1.23
393.700 15.5000	546.100 21.5000	288.925 11.3750	288.925 11.3750	4560 1026000	0.47	1.42	2.11	340 76400	276 62000	1184 266000	1.23
395 15.5512	545 21.4567	288.7 11.3660	268.7 10.5787	5300 1190000	0.46	1.48	2.20	394 88600	308 69200	1372 308000	1.28
400 15.7480	530 20.8661	370 14.5669	370 14.5669	6120 1374000	0.25	2.64	3.94	455 102000	199 44800	1584 356000	2.29
400 15.7480	540 21.2598	280 11.0236	280 11.0236	4100 924000	0.65	1.04	1.55	306 68700	339 76200	1064 240000	0.90
400.050 15.7500	609.600 24.0000	317.500 12.5000	303.213 11.9375	6420 1442000	0.38	1.75	2.61	477 107000	313 70400	1662 374000	1.52
406.400 16.0000	546.100 21.5000	288.924 11.3750	268.288 10.5620	5140 1154000	0.43	1.58	2.35	382 86000	279 62600	1332 300000	1.37



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
EE161403D	161900	161901CD	TQO	S	1.5 0.06	375.0 14.76	6.4 0.25	451.0 17.76	3.9 0.15	110 242
HM265049DGW	HM265010	HM265010CD	TQOGW	P	3.3 0.13	394.0 15.50	6.4 0.25	487.0 19.17	10.0 0.39	274 605
EE181454D	182350	182351D	TQO	P	6.4 0.25	408.0 16.06	6.4 0.25	552.0 21.73	13.1 0.51	367 810
LM765149DW	LM765110	LM765110D	TQOW	S	1.5 0.06	393.0 15.47	3.3 0.13	472.0 18.58	3.2 0.13	135 298
JM466449DW	JM466410	JM466410D	TQOW	S	2.0 0.08	519.0 20.43	6.0 0.24	522.0 20.55	9.5 0.37	186 409
NP009472	NP057667	NP079688	TQOW	P	5.0 0.20	436.0 17.17	5.0 0.20	568.0 22.36	9.6 0.38	450 992
HM266448DGW	HM266410	HM266410CD	TQOGW	S	3.5 0.14	414.0 16.30	6.4 0.25	507.0 19.96	7.1 0.28	302 666
LM665949DGW	LM665910	LM665910CD	TQOGW	S	3.3 0.13	409.0 16.10	3.3 0.13	482.0 18.98	4.6 0.18	182 402
EE234157D	234215	234216D	TQO	S	3.3 0.13	420.0 16.54	6.4 0.25	504.0 19.84	3.2 0.13	194 427
LM767745D	LM767710	LM767710D	TQO	S	1.5 0.06	418.0 16.46	6.4 0.25	510.0 20.08	5.6 0.22	205 452
NP414928	NP696082	NP835117	TQOW	S	2.0 0.08	418.0 16.46	4.0 0.16	513.0 20.20	3.2 0.13	193 422
NP326900	NP080286	–	2TDIW	S	3.3 0.13	426.0 16.77	6.4 0.25	500.0 19.69	6.3 0.25	224 494
NP647639	NP673496	NP682333	TQOW	S	5.0 0.20	428.0 16.85	5.0 0.20	495.0 19.49	4.1 0.16	178 392
EE911576D	912400	912401D	TQO	P	3.5 0.14	432.0 17.01	6.4 0.25	567.0 22.32	7.9 0.31	309 681
NP600047	LM667714W NP338843	–	2TDIGW	S	1.5 0.06	431.0 16.97	6.4 0.25	510.0 20.08	3.2 0.13	181 399

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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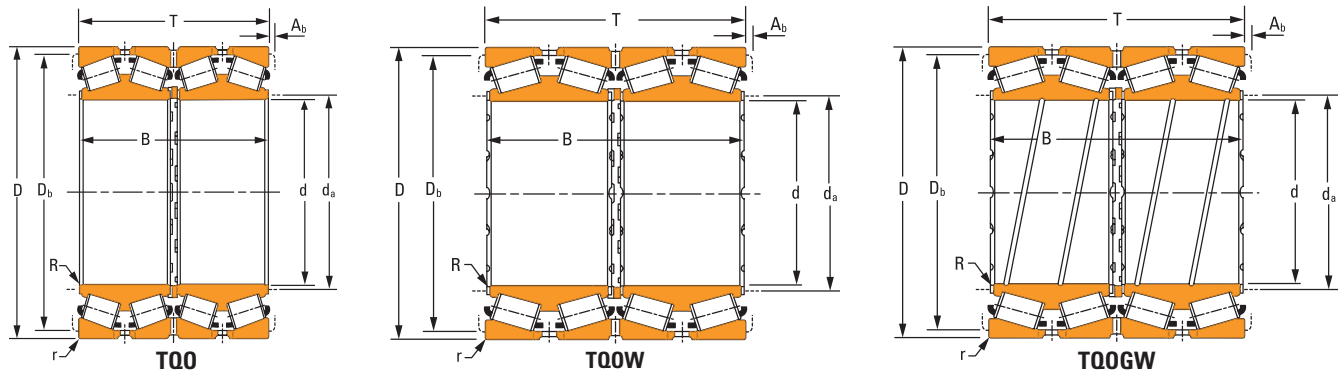
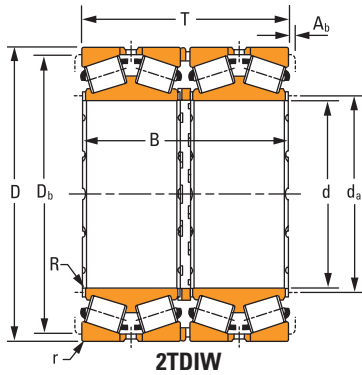


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
406.400 16.0000	546.100 21.5000	288.925 11.3750	288.924 11.3740	4560 1026000	0.47	1.42	2.11	340 76400	276 62000	1184 266000	1.23
406.400 16.0000	565.150 22.2500	381.000 15.0000	381.000 15.0000	7100 1594000	0.33	2.03	3.03	528 119000	301 67600	1838 414000	1.76
406.400 16.0000	574.675 22.6250	266.697 10.4999	250.030 9.8437	3860 868000	0.50	1.35	2.01	287 64600	245 55000	1000 224000	1.17
406.400 16.0000	590.550 23.2500	400.050 15.7500	400.050 15.7500	8040 1806000	0.32	2.08	3.10	598 135000	333 74900	2080 468000	1.80
409.575 16.1250	546.100 21.5000	334.962 13.1875	334.962 13.1875	5880 1322000	0.42	1.61	2.41	438 98500	313 70400	1526 342000	1.40
409.575 16.1250	546.100 21.5000	334.962 13.1875	334.962 13.1875	6280 1412000	0.49	1.37	2.04	468 105000	394 88600	1628 366000	1.19
415.925 16.3750	590.550 23.2500	434.975 17.1250	434.975 17.1250	9940 2240000	0.33	2.03	3.03	740 166000	421 94800	2580 580000	1.76
418.000 16.4567	571.500 22.5000	336.550 13.2500	336.550 13.2500	6340 1428000	0.44	1.53	2.29	473 106000	355 79700	1646 370000	1.33
419.100 16.5000	622.300 24.5000	317.500 12.5000	320.370 12.6130	6100 1374000	0.38	1.75	2.61	455 102000	299 67300	1584 356000	1.52
420 16.5354	620 24.4094	355 13.9764	355 13.9764	8280 1860000	0.40	1.67	2.49	616 139000	424 95300	2140 482000	1.45
431.800 17.0000	571.500 22.5000	279.400 11.0000	279.400 11.0000	4280 962000	0.55	1.23	1.84	319 71700	298 67000	1110 250000	1.07
431.800 17.0000	571.500 22.5000	279.400 11.0000	279.400 11.0000	4840 1086000	0.38	1.75	2.61	360 80900	237 53300	1252 282000	1.52
431.800 17.0000	571.500 22.5000	336.550 13.2500	336.550 13.2500	6640 1494000	0.44	1.53	2.29	495 111000	371 83500	1724 388000	1.33
431.800 17.0000	635.000 25.0000	355.600 14.0000	355.600 14.0000	7360 1654000	0.32	2.10	3.13	548 123000	301 67700	1906 428000	1.82
431.800 17.0000	635.000 25.0000	355.600 14.0000	355.600 14.0000	8260 1856000	0.38	1.78	2.65	615 138000	400 89800	2140 482000	1.54



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
LM767749DGW	LM767710	LM767710D	TQ0GW	P	1.5 0.06	427.0 16.81	6.4 0.25	510.0 20.08	8.8 0.35	186 410
M267949D	M267910	M267910XD	TQ0	P	3.3 0.13	432.0 17.01	6.4 0.25	528.0 20.79	10.4 0.40	288 634
EE285161D	285226	285228D	TQ0	S	3.3 0.13	435.0 17.13	3.3 0.13	534.0 21.02	3.2 0.13	209 462
EE833161XD	833232	833233D	TQ0	P	3.3 0.13	435.0 17.13	6.4 0.25	549.0 21.61	10.9 0.43	369 813
M667947DGW	M667911	M667911D	TQ0GW	S	2.0 0.08	431.0 16.97	6.4 0.25	510.0 20.08	4.8 0.19	217 479
NP160252	NP015239	NP035194	TQ0W	P	2.3 0.09	428.5 16.87	6.4 0.25	510.0 20.08	8.5 0.33	217 478
M268749DGW	M268710	M268710CD	TQ0GW	P	3.3 0.13	444.0 17.48	6.4 0.25	548.9 21.61	12.3 0.49	398 876
LM769340DWA	LM769310	—	2TDIW	S	1.5 0.06	443.0 17.44	6.4 0.25	534.0 21.02	0.0 0.00	261 576
EE261650D	262450	262450XD	TQ0	P	3.5 0.14	449.0 17.68	6.8 0.27	581.9 22.91	9.2 0.36	318 701
NP815821	NP359748	NP761158	TQ0W	P	6.0 0.24	453.0 17.83	5.0 0.20	579.0 22.80	10.9 0.42	367 808
LM869449DGW	LM869410	LM869410CD	TQ0GW	S	1.5 0.06	453.0 17.83	3.3 0.13	537.0 21.14	9.8 0.39	188 415
EE239172DW	239227	239228XD	TQ0W	S	1.5 0.06	452.1 17.80	3.3 0.13	540.0 21.26	4.1 0.16	193 427
LM769349DW	LM769310	LM769310D	TQ0W	P	1.5 0.06	453.0 17.83	6.4 0.25	534.0 21.02	10.5 0.41	240 529
EE931170D	931250	931251XD	TQ0	P	6.4 0.25	468.1 18.43	6.4 0.25	591.1 23.27	9.6 0.38	394 869
NP891819	NP241954	NP627036	TQ0W	S	6.4 0.25	470.0 18.50	6.4 0.25	588.0 23.15	5.8 0.23	390 860

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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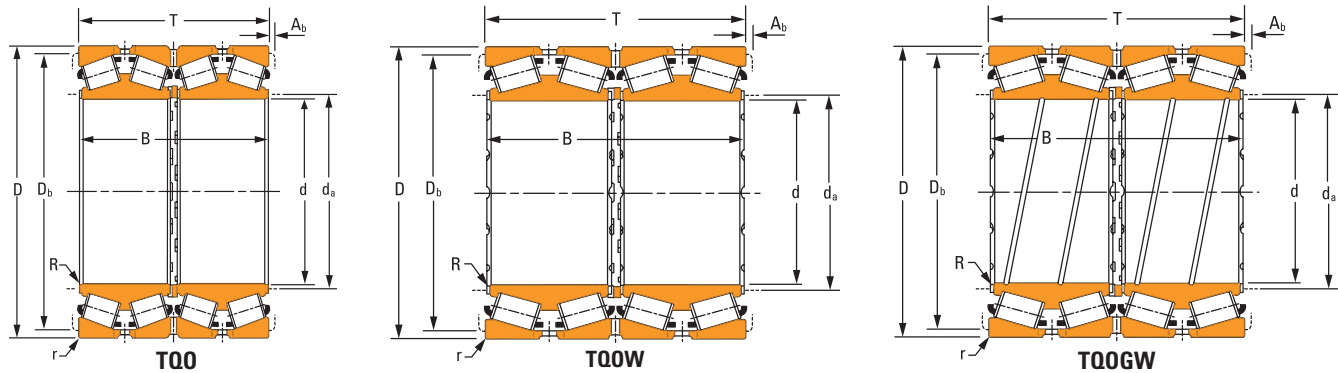
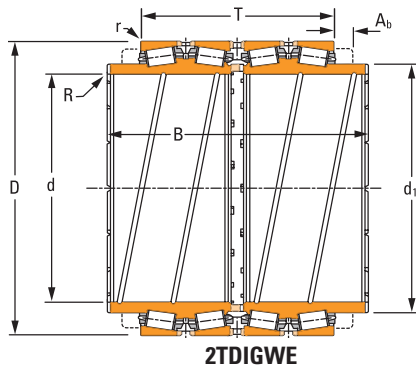


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions					Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	d ₁ (2TDIGWE)	One Million Revolutions				90 Million Revolutions			K Factor
					Dynamic Radial C ₁₀₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
432.003 17.0080	609.524 23.9970	317.500 12.5000	317.500 12.5000	–	5980 1346000	0.35	1.94	2.89	446 100000	265 59600	1552 350000	1.68
440 17.3228	580 22.8346	360 14.1732	360 14.1732	–	6960 1566000	0.40	1.67	2.49	518 117000	357 80200	1806 406000	1.45
440 17.3228	650 25.5906	353.5 13.9173	353.5 13.9173	–	8220 1848000	0.45	1.51	2.25	612 138000	465 105000	2140 478000	1.31
447.675 17.6250	635.000 25.0000	463.550 18.2500	463.550 18.2500	–	11400 2560000	0.33	2.03	3.03	849 191000	484 109000	2960 664000	1.76
449.949 17.7145	594.949 23.4232	368.000 14.4882	368.000 14.4882	–	6940 1560000	0.33	2.03	3.03	517 116000	294 66200	1800 404000	1.76
449.948 17.7145	594.949 23.4232	368.000 14.4882	368.000 14.4882	–	7580 1702000	0.33	2.03	3.03	564 127000	321 72100	1962 442000	1.76
450 17.7165	595 23.4252	415 16.3386	415 16.3386	520.192 20.4800	8720 1962000	0.31	2.16	3.22	650 146000	346 77900	2260 508000	1.87
456.794 17.9840	761.873 29.9950	527.050 20.7500	527.050 20.7500	–	12360 2780000	0.44	1.52	2.27	920 207000	695 156000	3200 720000	1.32
457.073 17.9950	730.148 28.7460	419.100 16.5000	412.750 16.2500	–	9840 2220000	0.39	1.72	2.56	733 165000	492 111000	2560 574000	1.49
457.200 18.0000	596.900 23.5000	279.400 11.0000	276.225 10.8750	–	5220 1174000	0.47	1.43	2.13	389 87500	315 70800	1354 304000	1.24
457.200 18.0000	596.900 23.5000	279.400 11.0000	276.225 10.8750	–	5420 1220000	0.47	1.43	2.13	404 90800	327 73500	1406 316000	1.24
457.200 18.0000	596.900 23.5000	279.400 11.0000	276.225 10.8750	–	4920 1108000	0.41	1.66	2.48	367 82400	254 57100	1278 288000	1.44
457.200 18.0000	660.400 26.0000	323.850 12.7500	323.850 12.7500	–	6140 1378000	0.37	1.80	2.68	457 103000	292 65700	1590 358000	1.56
457.200 18.0000	749.808 29.5200	444.500 17.5000	438.150 17.2500	–	12080 2720000	0.32	2.11	3.15	900 202000	491 110000	3140 704000	1.83
459.949 18.1082	624.924 24.6033	421.000 16.5748	421.000 16.5748	–	8600 1932000	0.33	2.03	3.03	640 144000	364 81900	2220 502000	1.76



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
EE736173D	736238	736239D	TQO	P	3.5 0.14	459.0 18.07	6.4 0.25	570.0 22.44	9.5 0.37	292 643
NP460063	NP369269	NP112080	TQOGW	S	3.0 0.12	465.0 18.31	7.5 0.30	543.0 21.38	4.8 0.19	257 565
NP834407	NP402991	NP677830	TQOW	P	6.0 0.24	477.0 18.78	6.0 0.24	609.0 23.98	9.5 0.37	394 868
M270749DGW	M270710	M270710CD	TQOGW	P	3.3 0.13	478.0 18.82	6.4 0.25	591.0 23.27	13.2 0.52	488 1076
M270449DW	M270410	M270410D	TQOW	P	3.0 0.12	474.0 18.66	6.0 0.24	561.0 22.09	9.7 0.38	284 626
M270448DGW	M270410	M270410D	TQOGW	S	3.0 0.12	474.0 18.66	6.0 0.24	561.0 22.09	5.6 0.22	274 604
NP720022	NP720023	–	2TDIGWE	P	1.5 0.06	472.0 18.58	6.0 0.24	561.0 22.09	10.9 0.42	310 683
EE425176D	425299	425299D	TQO	P	3.3 0.13	500.0 19.69	6.4 0.25	696.0 27.40	9.4 0.37	987 2177
EE671798D	672873	672875D	TQO	P	1.5 0.06	491.0 19.33	6.4 0.25	675.0 26.57	12.9 0.51	676 1490
L770847DGW	L770810	L770810D	TQOGW	S	1.5 0.06	478.0 18.82	3.3 0.13	567.0 22.32	5.4 0.21	192 424
NP129155	NP344631	NP820547	TQOW	S	1.5 0.06	478.0 18.82	3.3 0.13	567.0 22.32	6.4 0.25	196 432
EE244181D	244235	244236CD	TQO	S	1.5 0.06	478.0 18.82	3.3 0.13	567.0 22.32	6.2 0.24	198 436
EE737179D	737260	737261D	TQO	P	3.3 0.13	489.0 19.25	6.4 0.25	614.9 24.21	8.6 0.34	372 821
EE423181XD	423296	423296D	TQO	P	6.4 0.25	515.0 20.28	6.4 0.25	702.0 27.64	6.5 0.26	817 1802
M271149DGW	M271110	M271110CD	TQOGW	P	3.0 0.12	486.0 19.13	9.0 0.35	585.0 23.03	10.0 0.39	380 839

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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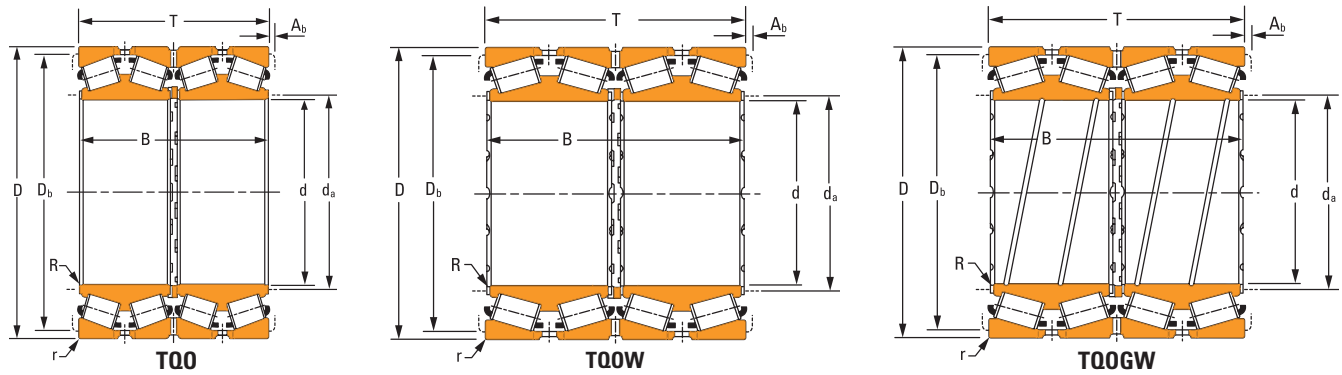
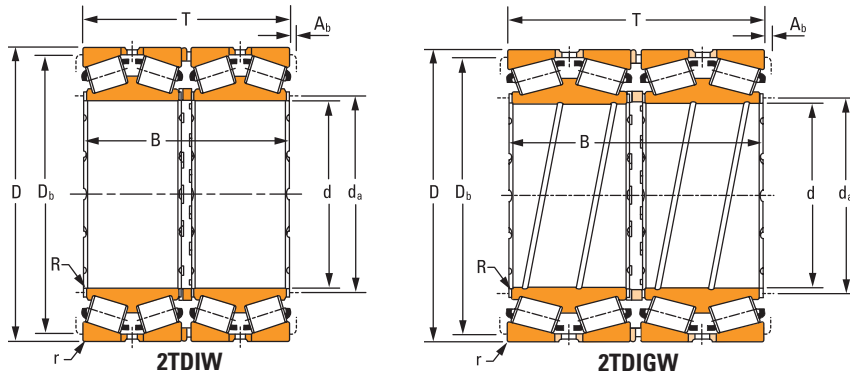


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
460 18.1102	586 23.0709	266 10.4724	266 10.4724	4780 1076000	0.47	1.44	2.15	356 80000	285 64200	1240 278000	1.25
460 18.1102	590 23.2283	360 14.1732	360 14.1732	7060 1588000	0.28	2.42	3.61	526 118000	250 56300	1830 412000	2.10
475.000 18.7008	600.000 23.6220	368.000 14.4882	368.000 14.4882	6500 1462000	0.29	2.31	3.44	484 109000	242 54300	1684 378000	2.00
475 18.7008	620 24.4094	380 14.9606	380 14.9606	8940 2000000	0.31	2.15	3.20	665 150000	357 80200	2320 520000	1.86
475 18.7008	620 24.4094	380 14.9606	380 14.9606	6620 1490000	0.35	1.94	2.89	494 111000	295 66200	1718 386000	1.68
479.425 18.8750	679.450 26.7500	495.300 19.5000	495.300 19.5000	13000 2920000	0.33	2.03	3.03	968 218000	551 124000	3360 758000	1.76
482.600 19.0000	615.950 24.2500	330.200 13.0000	330.200 13.0000	5900 1324000	0.33	2.03	3.03	439 98600	250 56100	1528 344000	1.76
482.600 19.0000	615.950 24.2500	419.250 16.5059	420.000 16.5354	8180 1840000	0.26	2.55	3.80	609 137000	276 62000	2120 478000	2.21
482.600 19.0000	635.000 25.0000	421.000 16.5748	421.000 16.5748	9120 2040000	0.33	2.03	3.03	679 153000	386 86800	2360 532000	1.76
482.600 19.0000	647.700 25.5000	417.512 16.4375	417.512 16.4375	8620 1936000	0.33	2.03	3.03	641 144000	365 82100	2240 502000	1.76
482.600 19.0000	615.950 24.2500	500.000 19.6850	500.000 19.6850	6480 1458000	0.33	2.03	3.03	483 109000	275 61800	1682 378000	1.76
488.950 19.2500	660.400 26.0000	361.950 14.2500	365.125 14.3750	8260 1856000	0.31	2.19	3.27	614 138000	323 72600	2140 480000	1.90
488.950 19.2500	679.450 26.7500	444.500 17.5000	444.500 17.5000	11480 2580000	0.35	1.95	2.91	854 192000	506 114000	2980 668000	1.69
489.026 19.2530	634.873 24.9950	320.675 12.6250	320.675 12.6250	6480 1456000	0.47	1.43	2.13	482 108000	390 87800	1680 378000	1.24
489.026 19.2530	634.873 24.9950	320.675 12.6250	320.675 12.6250	5120 1148000	0.34	1.96	2.92	380 85500	223 50200	1324 298000	1.70



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
JL770549DGW	JL770510	JL770510CD	TQ0GW	S	4.0 0.16	480.0 18.90	7.0 0.28	555.0 21.85	1.5 0.06	165 360
NP051296	NP782588	–	2TDIW	S	3.0 0.12	483.0 19.02	3.0 0.12	561.0 22.09	6.1 0.24	246 541
NP269618	NP897314	–	2TDIGW	S	2.0 0.08	497.0 19.57	6.4 0.25	570.0 22.44	1.6 0.06	247 545
JM171649DGW	JM171610	–	2TDIGW	P	2.5 0.10	496.0 19.53	5.0 0.20	588.0 23.15	12.0 0.47	297 654
JLM371942DG	JLM371914 JLM371914W	–	2TDIGW	S	3.3 0.13	500.0 19.69	6.4 0.25	588.0 23.15	0.0 0.00	298 656
M272749DGW	M272710	M272710CD	TQ0GW	P	3.3 0.13	510.0 20.08	6.4 0.25	633.0 24.92	14.0 0.55	599 1320
LM272249DGW	LM272210	LM272210CD	TQ0GW	S	3.3 0.13	504.0 19.84	6.4 0.25	585.0 23.03	5.8 0.23	236 520
NP907965	NP889064	–	2TDIGW	S	2.5 0.10	504.0 19.84	4.0 0.16	588.0 23.15	2.7 0.11	301 665
M272449DW	M272410	–	2TDIW	P	3.0 0.12	507.0 19.96	6.4 0.25	603.0 23.74	0.0 0.00	356 786
M272647DGW	M272610	M272610D	TQ0GW	P	3.3 0.13	510.0 20.08	6.4 0.25	609.0 23.98	4.4 0.17	412 909
LM272345DGW	LM272315 LM272316	–	2TDIGW	S	6.4 0.25	510.0 20.08	6.4 0.25	585.0 23.03	0.0 0.00	333 734
EE640193D	640260	640261CD	TQ0	P	8.0 0.31	516.0 20.31	6.4 0.25	624.0 24.57	11.7 0.46	356 785
NP323192	NP335700	NP589146	TQ0W	P	3.3 0.13	519.0 20.43	6.4 0.25	639.0 25.16	9.5 0.37	505 1113
LM772749DGW	LM772710	LM772710CD	TQ0GW	S	3.3 0.13	516.0 20.31	3.3 0.13	600.0 23.62	4.8 0.19	252 556
EE243193D	243250	243251D	TQ0	S	3.3 0.13	516.0 20.31	3.3 0.13	603.0 23.74	4.3 0.17	279 616

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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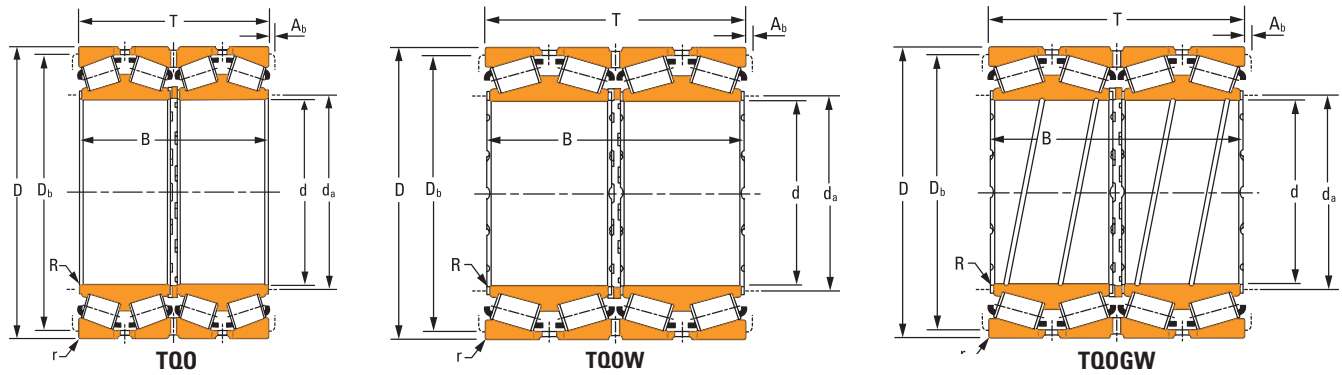
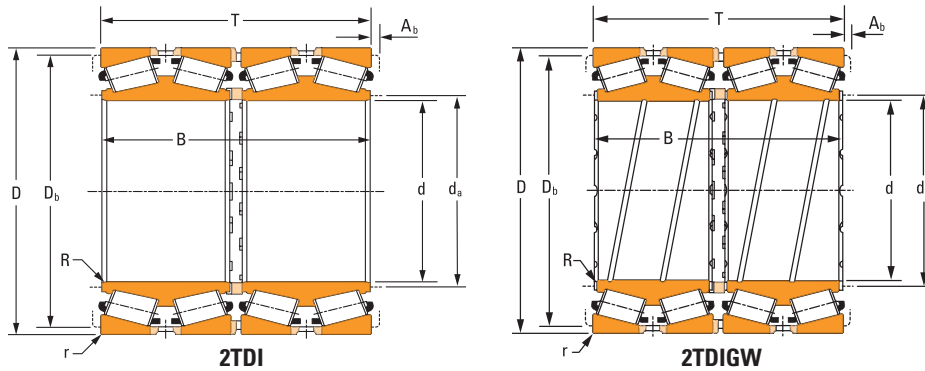


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₀₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
490 19.2913	625 24.6063	385 15.1575	385 15.1575	6820 1532000	0.33	2.04	3.04	507 114000	287 64500	1766 398000	1.77
500 19.6850	720 28.3465	420 16.5354	420 16.5354	10440 2340000	0.48	1.41	2.10	777 175000	639 144000	2700 608000	1.22
500 19.6850	730 28.7402	420 16.5354	420 16.5354	9040 2040000	0.33	2.03	3.03	674 151000	384 86200	2340 528000	1.76
500 19.6850	830 32.6772	568.5 22.3819	568.5 22.3819	16040 3600000	0.35	1.92	2.85	1190 269000	718 161000	4160 936000	1.66
501.650 19.7500	673.100 26.5000	387.350 15.2500	400.050 15.7500	9040 2040000	0.31	2.15	3.20	674 151000	362 81400	2340 528000	1.86
501.650 19.7500	711.200 28.0000	520.700 20.5000	520.700 20.5000	12300 2760000	0.33	2.03	3.03	916 206000	521 117000	3180 716000	1.76
508.000 20.0000	695.325 27.3750	415.925 16.3750	415.925 16.3750	10700 2400000	0.33	2.03	3.03	796 179000	453 102000	2780 624000	1.76
508.000 20.0000	762.000 30.0000	463.550 18.2500	463.550 18.2500	10720 2420000	0.38	1.78	2.65	799 180000	519 117000	2780 626000	1.54
510 20.0787	655 25.7874	379 14.9213	377 14.8426	9100 2040000	0.33	2.03	3.03	677 152000	386 86700	2360 530000	1.76
510 20.0787	730 28.7402	520 20.4724	520 20.4724	13980 3140000	0.34	1.98	2.96	1040 234000	606 136000	3620 816000	1.72
514.350 20.2500	673.100 26.5000	422.275 16.6250	422.275 16.6250	8260 1856000	0.32	2.11	3.15	615 138000	336 75400	2140 482000	1.83
519.112 20.4375	736.600 29.0000	536.575 21.1250	536.575 21.1250	13140 2960000	0.33	2.03	3.03	978 220000	557 125000	3400 766000	1.76
520.700 20.5000	711.200 28.0000	400.050 15.7500	400.050 15.7500	8960 2020000	0.33	2.03	3.03	667 150000	380 85400	2320 522000	1.76
530 20.8661	880 34.6457	543 21.3780	543 21.3780	16700 3760000	0.46	1.48	2.20	1240 279000	971 218000	4320 972000	1.28
536.575 21.1250	761.873 29.9950	558.800 22.0000	558.800 22.0000	13960 3140000	0.33	2.03	3.03	1040 234000	592 133000	3620 814000	1.76



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius	Cone Backing Diameter	Max. Housing Radius	Cup Backing Diameter	Axial Cage Clearance	
					R	d _a	r	D _b	A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
NP195018	NP069789	–	2TDIGW	S	3.0 0.12	516.0 20.31	4.0 0.16	597.0 23.50	0.0 0.00	281 620
NP090602	NP872793	NP666081	TQOW	P	8.0 0.32	546.0 21.50	8.0 0.32	669.0 26.34	8.7 0.34	571 1260
JLM275049DW	JLM275010	JLM275010D	TQOW	S	5.0 0.20	537.0 21.14	5.0 0.20	681.0 26.81	9.2 0.36	610 1345
NP281701	NP289130	NP281709	TQOW	P	10.0 0.39	558.0 21.97	10.0 0.39	765.0 30.12	15.9 0.63	1385 3053
EE641198D	641265	641266D	TQO	P	3.3 0.13	530.0 20.87	6.4 0.25	636.0 25.04	17.5 0.69	396 866
M274149DW	M274110	M274110D	TQOW	P	3.3 0.13	534.0 21.02	6.4 0.25	663.0 26.10	14.9 0.58	692 1526
LM274049DW	LM274010	LM274010D	TQOW	P	3.3 0.13	537.0 21.12	6.0 0.24	654.0 25.75	11.1 0.44	474 1044
EE531201D	531300	531301XD	TQO	P	6.4 0.25	550.7 21.68	6.4 0.25	710.9 27.99	11.7 0.46	747 1647
NP907899	NP385281	–	2TDIGW	S	1.6 0.06	531.0 20.91	6.6 0.26	624.0 24.57	10.8 0.42	312 687
NP486537	NP163840	NP238499	TQOGW	P	6.4 0.25	552.0 21.73	9.0 0.35	675.0 26.57	12.7 0.50	733 1615
LM274449DGW	LM274410	LM274410D	TQOGW	P	3.3 0.13	540.0 21.26	6.4 0.25	636.0 25.04	7.1 0.28	394 869
M275349DGW	M275310	–	2TDIGW	P	3.3 0.13	552.0 21.73	6.4 0.25	684.0 26.93	17.4 0.68	772 1703
LM275349D	LM275310	–	2TDI	P	3.3 0.13	549.0 21.61	6.4 0.25	672.0 26.46	12.4 0.48	476 1049
NP827555	NP083259	NP590779	TQOW	P	7.5 0.30	588.0 23.15	7.5 0.30	798.0 31.42	14.1 0.55	1400 3086
M276449DGW	M276410	M276410CD	TQOGW	P	3.3 0.13	564.0 22.20	6.4 0.25	711.0 27.99	11.8 0.46	844 1861

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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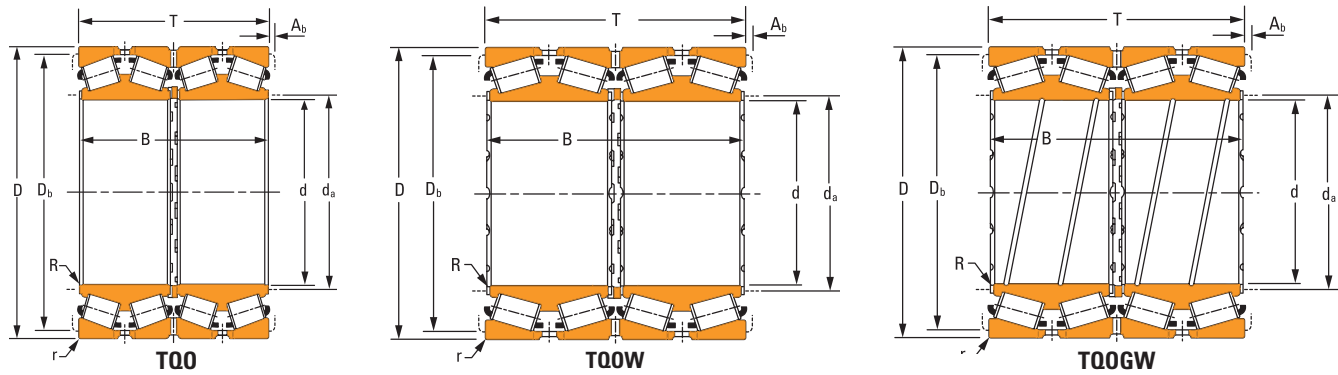
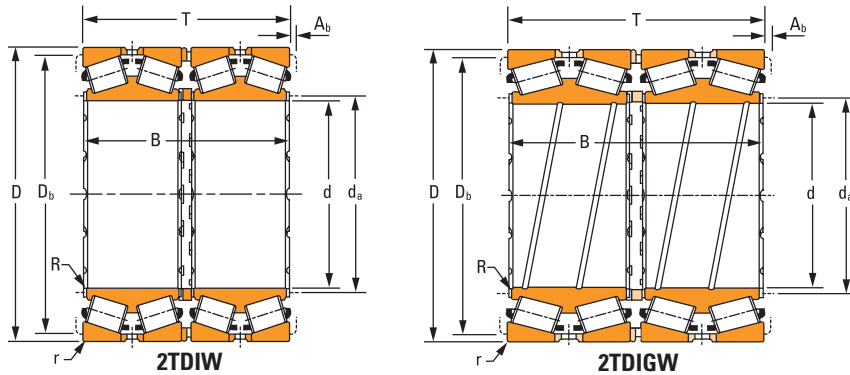


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
540.000 21.2598	690.000 27.1654	400.000 15.7480	400.000 15.7480	9260 2080000	0.33	2.03	3.03	689 155000	392 88200	2400 540000	1.76
558.800 22.0000	736.600 29.0000	322.268 12.6877	322.265 12.6876	7200 1620000	0.34	1.96	2.92	536 121000	315 70700	1868 420000	1.70
558.800 22.0000	736.600 29.0000	409.575 16.1250	409.575 16.1250	8960 2020000	0.35	1.95	2.91	667 150000	395 88800	2320 522000	1.69
558.800 22.0000	736.600 29.0000	457.200 18.0000	455.613 17.9375	10300 2320000	0.33	2.03	3.03	766 172000	436 98100	2660 600000	1.76
560 22.0472	700 27.5591	405 15.9449	405 15.9449	8480 1908000	0.33	2.03	3.03	632 142000	360 80900	2200 494000	1.76
560 22.0472	920 36.2205	620 24.4094	620 24.4094	19000 4260000	0.39	1.72	2.56	1410 318000	949 213000	4920 1106000	1.49
571.500 22.5000	812.800 32.0000	593.725 23.3750	593.725 23.3750	15780 3540000	0.33	2.03	3.03	1180 264000	669 150000	4100 920000	1.76
584.200 23.0000	730.250 28.7500	349.250 13.7500	342.900 13.5000	7520 1688000	0.43	1.57	2.34	559 126000	412 92600	1948 438000	1.36
584.200 23.0000	762.000 30.0000	401.638 15.8125	396.874 15.6250	8440 1898000	0.47	1.43	2.13	628 141000	509 114000	2180 492000	1.24
584.200 23.0000	901.700 35.5000	539.747 21.2499	484.979 19.0937	17340 3900000	0.33	2.03	3.03	1290 290000	732 165000	4500 1010000	1.76
584.200 23.0000	901.700 35.5000	539.747 21.2499	523.080 20.5937	16320 3660000	0.33	2.03	3.03	1210 273000	689 155000	4240 952000	1.76
585.788 23.0625	771.525 30.3750	479.425 18.8750	479.425 18.8750	11460 2580000	0.33	2.03	3.03	853 192000	486 109000	2980 668000	1.76
595.312 23.4375	844.550 33.2500	615.950 24.2500	615.950 24.2500	16940 3800000	0.33	2.03	3.03	1260 283000	718 161000	4400 988000	1.76
600 23.6220	800 31.4961	365 14.3700	365 14.3700	8580 1930000	0.39	1.71	2.54	639 144000	433 97300	2220 500000	1.48
603.250 23.7500	857.250 33.7500	622.300 24.5000	622.300 24.5000	17480 3920000	0.33	2.03	3.03	1300 292000	741 166000	4520 1018000	1.76



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
NP793712	NP679160	NP680585	TQ0GW	P	3.0 0.12	564.0 22.20	6.0 0.24	654.0 25.75	11.3 0.44	369 814
EE843220DW	843290	843291CD	TQOW	P	3.3 0.13	585.0 23.03	6.4 0.25	699.0 27.52	13.6 0.53	373 822
LM377449DW	LM377410	LM377410CD	TQOW	P	3.3 0.13	588.0 23.15	6.4 0.25	696.0 27.40	11.9 0.47	482 1062
LM277149DA	LM277110	LM277110D	TQO	P	3.3 0.13	588.0 23.15	6.4 0.25	696.0 27.40	15.9 0.63	533 1174
NP296291	NP203938	NP209728	TQOW	S	3.0 0.12	585.0 23.03	5.0 0.20	666.0 26.22	5.1 0.20	355 782
NP460735	NP301398	NP028523	TQOW	P	10.0 0.39	624.0 24.57	10.0 0.39	846.0 33.31	14.3 0.56	1695 3739
M278749DGW	M278710	M278710CD	TQ0GW	P	3.3 0.13	609.0 23.98	6.4 0.25	756.0 29.76	12.2 0.48	1026 2263
NP814067	NP695713 NP712077	–	2TDIGW	S	1.5 0.06	606.0 23.86	3.3 0.13	699.0 27.52	3.2 0.13	328 723
LM778549DGW	LM778510	–	2TDIGW	S	3.3 0.13	615.0 24.21	6.4 0.25	717.0 28.23	7.9 0.31	465 1026
662300D	663550	663551D	TQO	P	3.3 0.13	624.0 24.57	9.7 0.38	843.0 33.19	7.6 0.30	1185 2613
EE665231D	665355	665356D	TQO	P	3.3 0.13	624.0 24.57	9.7 0.38	843.0 33.19	6.8 0.27	1290 2845
LM278849DGW	LM278810	–	2TDIGW	P	3.3 0.13	615.0 24.21	6.4 0.25	726.0 28.58	12.2 0.47	615 1356
M280049DW	M280010	–	2TDIW	P	3.3 0.13	633.0 24.92	6.4 0.25	786.0 30.94	18.5 0.72	1148 2531
NP047309	NP910908	NP561503	TQOW	P	6.0 0.24	633.0 24.92	6.0 0.24	755.0 29.72	10.3 0.40	498 1098
M280249DGWA	M280210	–	2TDIGW	P	3.3 0.13	642.0 25.28	6.4 0.25	798.0 31.42	15.4 0.60	1194 2631

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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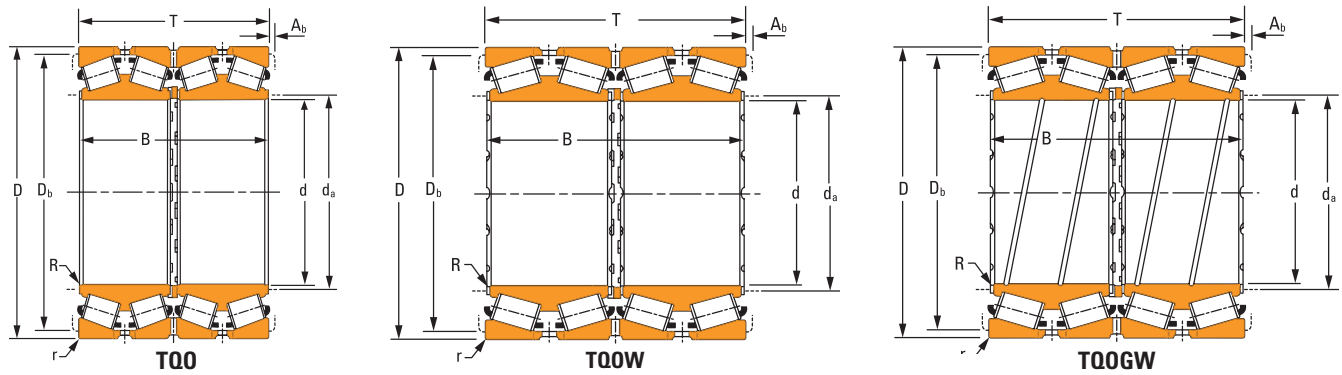
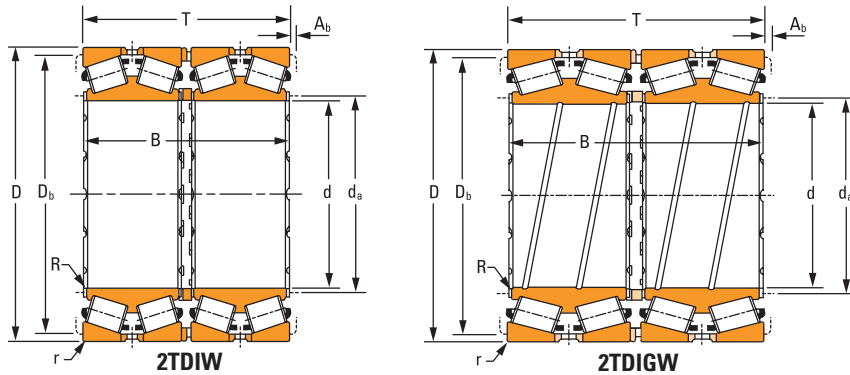


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
609.600 24.0000	787.400 31.0000	361.950 14.2500	361.950 14.2500	9100 2040000	0.37	1.82	2.72	677 152000	430 96600	2360 530000	1.58
609.600 24.0000	813.562 32.0300	479.425 18.8750	479.425 18.8750	11700 2620000	0.33	2.03	3.03	871 196000	496 111000	3040 682000	1.76
609.600 24.0000	863.600 34.0000	660.400 26.0000	660.400 26.0000	21000 4740000	0.33	2.03	3.03	1570 353000	893 201000	5460 1228000	1.76
620 24.4094	800 31.4961	363.5 14.3110	363.5 14.3110	8780 1972000	0.33	2.04	3.04	653 147000	369 83000	2280 512000	1.77
625.000 24.6063	815.000 32.0866	480.000 18.8976	480.000 18.8976	12040 2700000	0.34	2.01	2.99	896 201000	516 116000	3120 702000	1.74
630 24.8031	850 33.4646	418 16.4567	418 16.4567	10060 2260000	0.40	1.70	2.53	748 168000	510 115000	2600 586000	1.47
630 24.8031	850 33.4645	422 16.6142	422 16.6142	11700 2620000	0.40	1.68	2.51	871 196000	596 134000	3040 682000	1.46
630 24.8031	920 36.2205	513.5 20.2165	513.5 20.2165	17540 3940000	0.30	2.24	3.34	1310 293000	672 151000	4540 1022000	1.94
630.159 24.8094	630.160 24.8094	849.875 24.8094	515.000 20.2756	16160 3640000	0.33	2.03	3.03	1200 270000	685 154000	4180 942000	1.76
635.000 25.0000	901.700 35.5000	654.050 25.7500	654.050 25.7500	19120 4300000	0.33	2.03	3.03	1420 320000	810 182000	4960 1114000	1.76
646.112 25.4375	857.250 33.7500	542.925 21.3750	542.925 21.3750	16360 3680000	0.33	2.03	3.03	1220 274000	694 156000	4240 954000	1.76
647.700 25.5000	1028.700 40.5000	565.150 22.2500	558.800 22.0000	19520 4380000	0.31	2.15	3.20	1450 327000	782 176000	5060 1138000	1.86
649.920 25.5874	1029.950 40.5492	560.000 22.0472	560.000 22.0472	20000 4500000	0.36	1.89	2.82	1490 335000	910 205000	5180 1166000	1.64
649.925 25.5876	914.898 36.0196	674.000 26.5354	672.000 26.4560	20200 4540000	0.33	2.03	3.03	1500 338000	855 192000	5240 1176000	1.76
657.225 25.8750	933.450 36.7500	676.275 26.6250	676.274 26.6240	20400 4580000	0.33	2.03	3.03	1520 342000	865 195000	5300 1190000	1.76



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
EE649242DGW	649310	649311CD	TQ0GW	P	6.4 0.25	641.4 25.25	6.4 0.25	747.0 29.41	12.6 0.49	466 1027
LM280249DGW	LM280210	LM280210D	TQ0GW	P	3.0 0.12	639.0 25.16	6.4 0.25	771.0 30.35	10.9 0.43	703 1551
M280349D	M280310	M280310D	TQ0	P	3.3 0.13	648.0 25.51	6.4 0.25	807.0 31.77	5.4 0.21	1243 2740
NP608180	NP961612	NP975169	TQ0W	S	3.0 0.12	648.0 25.51	6.0 0.24	760.0 29.92	8.1 0.32	448 987
NP472983	NP261943	–	2TDIW	P	3.3 0.13	657.0 25.87	6.4 0.25	746.0 29.37	6.2 0.24	673 1485
NP143337	JL580914	NP660239	TQ0W	S	6.0 0.24	660.0 25.98	6.0 0.24	801.0 31.54	6.1 0.24	666 1469
NP935150	NP938292	NP970384	TQ0W	P	10.0 0.39	669.0 26.34	10.0 0.39	798.0 31.42	13.3 0.52	700 1543
NP491603	NP180839	NP625919	TQ0W	P	10.0 0.39	681.0 26.81	10.0 0.39	864.0 34.02	16.2 0.63	1160 2557
NP122947	NP695979	–	2TDIW	P	6.4 0.25	666.0 26.22	6.4 0.25	804.0 31.65	6.4 0.25	842 1857
M281049DGW	M281010	M281010CD	TQ0GW	P	3.3 0.13	675.0 26.57	6.4 0.25	843.0 33.19	17.5 0.69	1387 3058
LM281049DGW	LM281010	–	2TDIGW	P	3.3 0.13	678.0 26.69	6.4 0.25	810.0 31.89	16.7 0.65	877 1934
EE424257D	424405	424407D	TQ0	P	11.0 0.43	713.5 28.09	6.4 0.25	960.0 37.80	17.4 0.68	1795 3958
NP208198	NP202675	–	2TDIW	P	10.0 0.39	723.0 28.46	15.0 0.59	948.0 37.32	9.5 0.37	1903 4195
M281349DW	M281310	M281310D	TQ0W	P	3.5 0.14	690.0 27.17	6.0 0.24	855.0 33.66	14.0 0.55	1440 3174
M281649DW	M281610	M281610CD	TQ0W	P	3.3 0.13	699.0 27.52	6.4 0.25	870.0 34.25	23.9 0.94	1537 3389

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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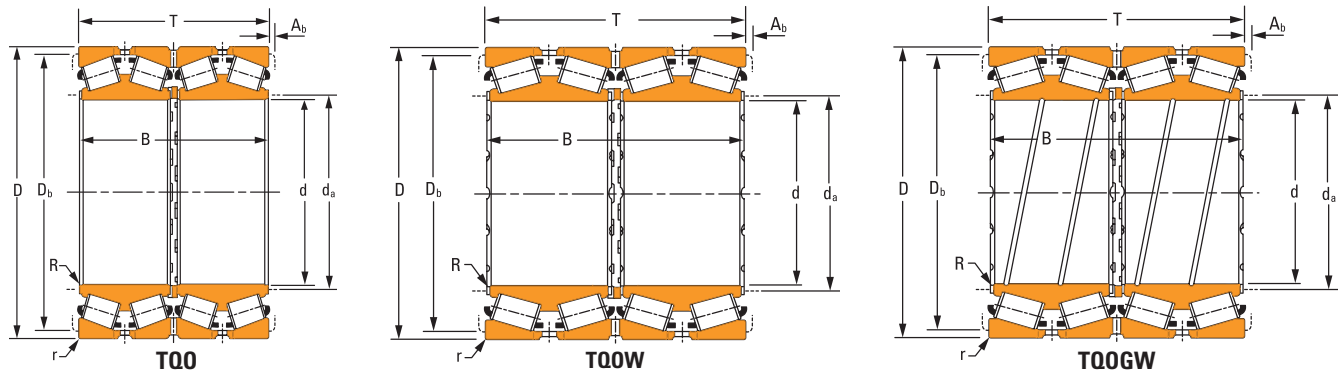
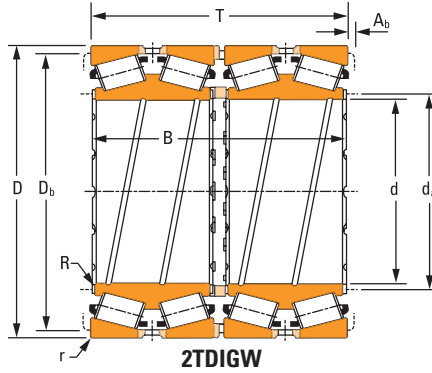
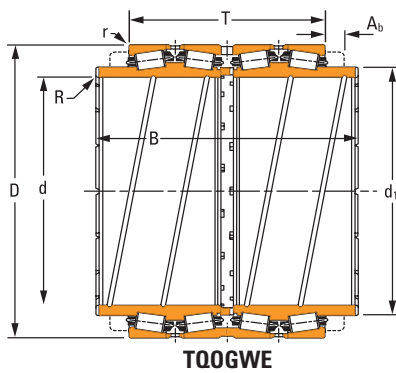


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions					Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	d ₁ (2TDIGWE)	One Million Revolutions				90 Million Revolutions			K Factor
					Dynamic Radial C ₁₀₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
659.925 25.9813	854.923 33.6584	318.480 12.5386	319.190 12.5665	–	7800 1754000	0.35	1.92	2.85	581 131000	349 78600	2020 454000	1.66
659.925 25.9813	1069.900 42.1220	648.002 25.5119	648.002 25.5119	–	22800 5120000	0.31	2.18	3.25	1690 381000	898 202000	5900 1326000	1.89
660.400 26.0000	812.800 32.0000	365.125 14.3750	365.126 14.3750	–	9520 2140000	0.33	2.03	3.03	709 159000	404 90700	2460 556000	1.76
676 26.6142	910 35.8268	620 24.4095	620 24.4095	–	18200 4100000	0.37	1.82	2.72	1350 305000	857 193000	4720 1060000	1.58
679.450 26.7500	901.700 35.5000	552.450 21.7500	552.450 21.7500	–	17480 3920000	0.33	2.03	3.03	1300 292000	741 166000	4520 1018000	1.76
682.625 26.8750	965.200 38.0000	701.675 27.6250	701.675 27.6250	–	1620 364000	0.33	2.03	3.03	1620 364000	921 207000	5640 1268000	1.76
685.800 27.0000	876.300 34.5000	355.600 14.0000	352.425 13.8750	–	9580 2160000	0.42	1.61	2.41	714 160000	508 114000	2480 558000	1.40
704.850 27.7500	914.400 36.0000	552.450 21.7500	552.449 21.7490	–	14640 3300000	0.43	1.57	2.34	1090 245000	803 181000	3800 854000	1.36
708.025 27.8750	930.275 36.6250	565.150 22.2500	565.150 22.2500	–	16120 3620000	0.33	2.03	3.03	1200 270000	684 154000	4180 940000	1.76
709.925 27.9498	899.925 35.4301	410.000 16.1417	410.000 16.1417	–	9980 2240000	0.53	1.28	1.91	743 167000	667 150000	2580 582000	1.11
711.200 28.0000	914.400 36.0000	317.500 12.5000	317.500 12.5000	–	8300 1868000	0.38	1.78	2.65	619 139000	403 90600	2160 484000	1.54
711.200 28.0000	914.400 36.0000	317.500 12.5000	425.450 16.7500	775.970 30.5500	8740 1964000	0.38	1.79	2.66	651 146000	421 94600	2260 510000	1.55
714.375 28.1250	1016.000 40.0000	704.850 27.7500	704.850 27.7500	–	22400 5040000	0.35	1.92	2.85	1670 376000	1000 226000	5820 1308000	1.66
717.550 28.2500	946.150 37.2500	565.150 22.2500	565.150 22.2500	–	18620 4180000	0.33	2.03	3.03	1390 312000	790 178000	4820 1086000	1.76
730 28.7402	940 37.0079	500 19.6850	500 19.6850	–	15500 3480000	0.35	1.95	2.91	1150 259000	684 154000	4020 904000	1.69



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
EE749259DW	749334	749335CD	TQOW	P	4.8 0.19	693.0 27.28	9.7 0.38	807.0 31.77	11.3 0.45	468 1039
EE428263D	428423	428423D	TQO	P	6.0 0.24	717.0 28.23	10.0 0.39	990.0 38.98	10.0 0.39	2338 5155
L281149DGW	L281110	L281110CD	TQOGW	P	3.3 0.13	682.8 26.88	6.4 0.25	777.0 30.59	14.1 0.56	416 916
NP992335	NP339560	NP786396	TQOGW	P	4.0 0.16	717.0 28.23	7.5 0.30	849.0 33.43	11.9 0.47	1200 2645
LM281849DW	LM281810	LM281810CD	TQOW	P	3.3 0.13	714.0 28.11	6.4 0.25	852.0 33.54	16.7 0.66	1000 2204
M282249D	M282210	M282210CD	TQO	P	3.3 0.13	723.0 28.46	6.4 0.25	900.0 35.43	16.8 0.66	1718 3787
EE655271DGW	655345	–	2TDIGW	P	3.3 0.13	717.0 28.23	6.4 0.25	831.0 32.72	16.4 0.65	545 1202
LM682342DGW	LM682315	LM682315CD	TQOW	P	3.3 0.13	741.0 29.17	6.4 0.25	867.0 34.13	18.6 0.73	967 2131
LM282549DW	LM282510	LM282510D	TQOW	P	3.3 0.13	741.0 29.17	6.4 0.25	879.0 34.61	16.2 0.64	1061 2339
L882449DGW	L882410	L882410CD	TQOGW	P	3.3 0.13	741.0 29.17	6.4 0.25	852.0 33.54	10.8 0.42	638 1406
EE755281DGW	755360	–	2TDIGW	P	3.3 0.13	744.0 29.29	6.4 0.25	873.0 34.37	13.5 0.53	536 1183
NP058834	NP722126	NP830847	TQOGWE	P	8.0 0.31	753.0 29.65	6.8 0.27	879.0 34.61	13.4 0.53	572 1260
M383240DGW	M383210	M383210D	TQOGW	P	3.3 0.13	759.0 29.88	6.4 0.25	948.0 37.32	19.8 0.78	1901 4191
LM282847DW	LM282810	LM282810D	TQOW	P	3.3 0.13	753.0 29.65	6.4 0.25	894.0 35.20	15.9 0.63	1117 2462
NP580440	NP337315	–	2TDIGW	P	3.5 0.14	765.0 30.12	8.0 0.31	894.0 35.20	13.6 0.53	880 1941

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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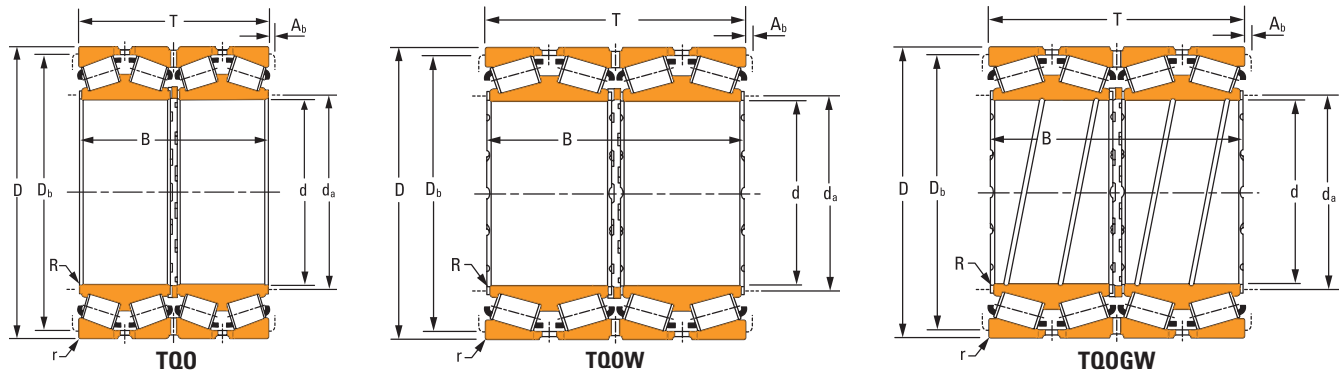
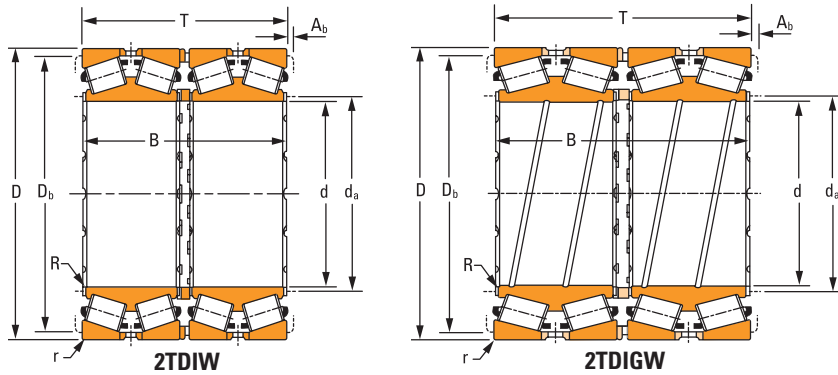


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
730.000 28.7402	1090.000 42.9134	660.000 25.9843	660.000 25.9843	26200 5880000	0.33	2.03	3.03	1950 438000	1110 249000	6780 1524000	1.76
730.250 28.7500	1035.050 40.7500	755.650 29.7500	755.650 29.7500	24800 5580000	0.33	2.03	3.03	1850 416000	1050 237000	6440 1448000	1.76
749.300 29.5000	990.600 39.0000	605.000 23.8189	605.000 23.8189	20800 4680000	0.33	2.03	3.03	1550 349000	883 198000	5400 1214000	1.76
749.300 29.5000	1066.800 42.0000	736.600 29.0000	723.900 28.5000	24800 5580000	0.33	2.04	3.04	1850 415000	1040 234000	6440 1446000	1.77
749.300 29.5000	1130.300 44.5000	685.800 27.0000	685.800 27.0000	24000 5380000	0.49	1.38	2.06	1780 400000	1490 334000	6200 1394000	1.20
749.300 29.5000	1181.100 46.5000	736.600 29.0000	736.600 29.0000	26000 5840000	0.37	1.80	2.68	1930 434000	1240 278000	6720 1512000	1.56
750 29.5276	950 37.4016	410 16.1417	410 16.1417	12720 2860000	0.35	1.92	2.85	947 213000	569 128000	3300 742000	1.66
750 29.5276	1220 48.0315	840 33.0709	840 33.0709	39000 8740000	0.32	2.11	3.15	2900 651000	1580 355000	10080 2260000	1.83
762.000 30.0000	1028.700 40.5000	565.150 22.2500	558.800 22.0000	20800 4660000	0.31	2.15	3.20	1550 348000	831 187000	5380 1210000	1.86
762.000 30.0000	1066.800 42.0000	736.600 29.0000	723.900 28.5000	24600 5520000	0.33	2.03	3.03	1830 411000	1040 234000	6360 1430000	1.76
762.000 30.0000	1079.500 42.5000	787.400 31.0000	787.400 31.0000	26800 6020000	0.33	2.03	3.03	1990 448000	1130 255000	6940 1560000	1.76
762.000 30.0000	1219.200 48.0000	812.800 32.0000	803.275 31.6250	30200 6780000	0.36	1.89	2.82	2240 504000	1360 307000	7800 1756000	1.64
762.000 30.0000	1295.400 51.0000	647.700 25.5000	647.700 25.5000	26000 5820000	0.38	1.75	2.61	1930 434000	1270 285000	6720 1510000	1.52
774.700 30.5000	1219.873 48.0265	838.474 33.0108	838.474 33.0108	31000 6960000	0.39	1.72	2.56	2310 519000	1550 347000	8040 1806000	1.49
785 30.9055	1020 40.1575	600 23.6220	600 23.6220	21000 4700000	0.35	1.95	2.91	1560 351000	921 207000	5420 1220000	1.69



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	Axial Cage Clearance A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
NP957484	NP112712	–	2TDIW	P	3.3 0.13	774.0 30.47	6.4 0.25	1020.0 40.16	18.2 0.72	2161 4764
M283449DGW	M283410	–	2TDIGW	P	3.3 0.13	774.0 30.47	6.4 0.25	966.0 38.03	18.8 0.73	2092 4612
LM283649DGW	LM283610	–	2TDIGW	P	3.3 0.13	786.0 30.94	6.4 0.25	936.0 36.85	16.2 0.63	1315 2899
EE325296DGW	325420	325421XD	TQ0GW	P	12.7 0.50	806.5 31.75	12.7 0.50	996.0 39.21	16.7 0.66	2152 4744
EE731296D	731445	731445D	TQ0	P	6.4 0.25	820.0 32.28	9.7 0.38	1045.0 41.14	14.4 0.57	2444 5389
EE690296D	690465	690466XD	TQ0	P	6.4 0.25	813.0 32.01	12.7 0.50	1085.0 42.72	12.5 0.49	3020 6657
NP037181	NP327704 NP426265	–	2TDIW	P	6.0 0.24	786.0 30.94	6.0 0.24	909.0 35.67	9.9 0.39	718 1582
NP476024	LM184015	NP483799	TQ0W	P	12.0 0.47	825.0 32.48	12.0 0.47	1130.0 44.49	21.7 0.85	4010 8840
LM184043DW	M284111	LM184015CD	TQ0W	P	6.4 0.25	807.0 31.77	6.4 0.25	978.0 38.50	17.5 0.69	1378 3039
M284148DGW	M284210	M284110D	TQ0GW	P	9.5 0.37	819.0 32.24	12.7 0.50	996.0 39.21	15.8 0.62	2114 4661
M284249DGW	528480	M284210CD	TQ0GW	P	4.8 0.19	810.0 31.89	12.7 0.50	1005.0 39.57	19.7 0.78	2392 5273
EE528300D	433512	528480D	TQ0	P	6.4 0.25	828.0 32.60	12.7 0.50	1125.0 44.29	16.3 0.64	3666 8083
EE433301D	631484	433513XD	TQ0	P	6.4 0.25	852.0 33.54	6.4 0.25	1210.0 47.64	14.4 0.56	3622 7985
EE631305D	NP583119	631483XD	TQ0	P	6.4 0.25	843.0 33.19	12.7 0.50	1125.0 44.29	0.0 0.00	3878 8549
NP781149	M285810	–	2TDIW	P	6.0 0.24	828.0 32.60	12.0 0.47	960.0 37.80	17.4 0.68	1304 2873

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

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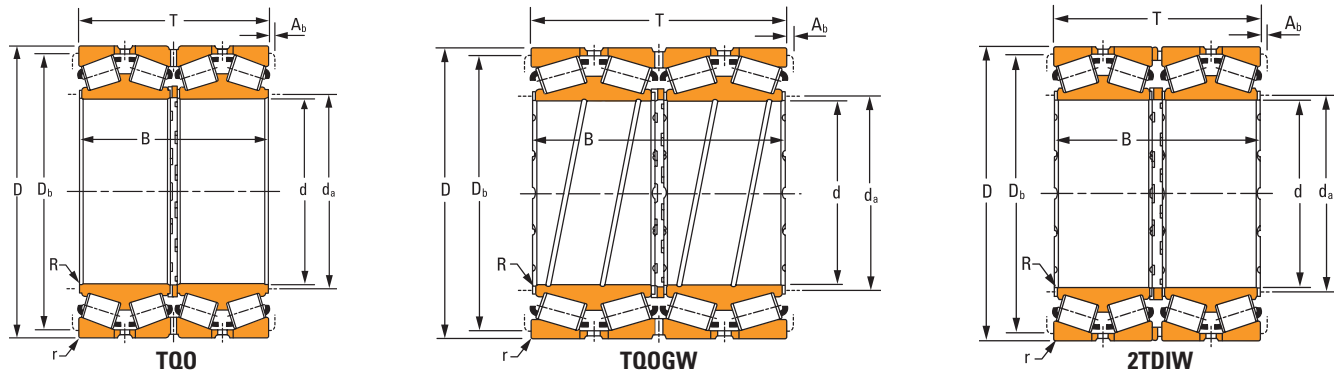
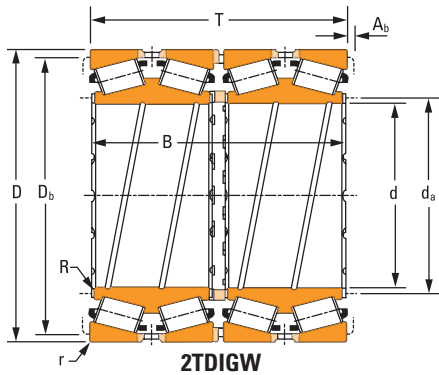


TABLE 53. TQOW – 2TDIW PRODUCT DATA – continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width over Cups T	Width over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
825.500 32.5000	1168.400 46.0000	844.550 33.2500	844.550 33.2500	31200 7000000	0.33	2.03	3.03	2320 521000	1320 297000	8080 1816000	1.76
863.600 34.0000	1130.300 44.5000	669.925 26.3750	669.925 26.3750	26000 5860000	0.33	2.03	3.03	1940 436000	1100 248000	6760 1518000	1.76
863.600 34.0000	1181.100 46.5000	666.750 26.2500	666.750 26.2500	25000 5600000	0.33	2.03	3.03	1860 418000	1060 238000	6460 1454000	1.76
863.600 34.0000	1219.200 48.0000	889.000 35.0000	876.300 34.5000	38800 8700000	0.33	2.03	3.03	2880 648000	1640 369000	10040 2260000	1.76
877.888 34.5625	1219.873 48.0265	819.150 32.2500	819.150 32.2500	31000 6960000	0.33	2.03	3.03	2310 518000	1310 295000	8020 1804000	1.76
901.700 35.5000	1295.400 51.0000	914.400 36.0000	901.700 35.5000	39000 8760000	0.34	2.01	2.99	2900 653000	1670 376000	10100 2280000	1.74
938.212 36.9375	1270.000 50.0000	825.500 32.5000	825.500 32.5000	31800 7140000	0.33	2.03	3.03	2360 532000	1350 303000	8240 1852000	1.76
939.800 37.0000	1333.500 52.5000	952.500 37.5000	952.500 37.5000	39800 8960000	0.33	2.03	3.03	2970 667000	1690 379000	10320 2320000	1.76
1000.897 39.4054	1295.400 51.0000	763.999 30.0787	763.999 30.0787	28200 6360000	0.33	2.03	3.03	2100 473000	1200 269000	7320 1648000	1.76
1070 42.1260	1400 55.1181	890 35.0394	890 35.0394	41200 9280000	0.33	2.03	3.03	3070 691000	1750 393000	10700 2400000	1.76
1139.825 44.8750	1509.712 59.4375	923.925 36.3750	923.925 36.3750	49200 11060000	0.33	2.03	3.03	3660 823000	2080 468000	12760 2860000	1.76
1200.150 47.2500	1593.850 62.7500	990.600 39.0000	990.600 39.0000	47200 10600000	0.33	2.03	3.03	3510 789000	2000 449000	12220 2740000	1.76
1346.200 53.0000	1729.740 68.1000	1143.000 45.0000	1143.000 45.0000	56200 12620000	0.28	2.42	3.61	4180 939000	1990 447000	14560 3280000	2.10



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Mounting Dimensions					Weight
Double Cone	Single Cup	Double Cup			Max. Shaft Radius	Cone Backing Diameter	Max. Housing Radius	Cup Backing Diameter	Axial Cage Clearance	
					R	da	r	Db	Ab	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
M285848DGW	LM286210	M285810CD	TQOGW	P	4.8 0.19	879.0 34.61	12.7 0.50	1085.0 42.72	20.2 0.79	3036 6692
LM286248DGW	LM286410	–	2TDIGW	P	4.8 0.19	906.0 35.67	12.7 0.50	1065.0 41.93	18.4 0.72	1835 4045
LM286449D	547480	LM286410D	TQO	P	4.8 0.19	909.0 35.79	12.7 0.50	1110.0 43.70	17.0 0.66	2247 4953
EE547341DW	LM286711	–	2TDIW	P	4.8 0.19	918.0 36.14	12.7 0.50	1135.0 44.69	16.3 0.64	3337 7357
LM286749DGW	634510	–	2TDIGW	P	4.8 0.19	930.0 36.61	12.7 0.50	1140.0 44.88	17.5 0.69	3041 6705
EE634356D	LM287610	634510D	TQO	P	4.8 0.19	960.0 37.80	12.7 0.50	1205.0 47.44	15.9 0.63	4119 9081
LM287649DGW	LM287810	LM287610D	TQOGW	P	4.8 0.19	990.0 38.98	12.7 0.50	1190.0 46.85	21.0 0.83	3158 6961
LM287849DGW	LM288210	LM287810CD	TQOGW	P	4.8 0.19	999.0 39.33	12.7 0.50	1240.0 48.82	16.0 0.63	4432 9771
LM288245DW	JLM288410	–	2TDIW	P	4.8 0.19	1050.0 41.34	12.7 0.50	1225.0 48.23	18.1 0.71	2669 5884
JLM288449DW	NP354913	–	2TDIW	P	5.0 0.20	1120.0 44.09	13.0 0.51	1320.0 51.97	9.8 0.38	3734 8233
NP555508	LM288910	–	2TDIW	P	4.8 0.19	1195.0 47.05	12.7 0.50	1430.0 56.30	16.3 0.64	4571 10078
LM288949D	LM189217	LM288910D	TQO	P	4.8 0.19	1260.0 49.61	12.7 0.50	1500.0 59.06	18.2 0.71	2745 6051
LM189242DGA	–	–	2TDIGW	P	4.8 0.19	1405.0 55.31	12.7 0.50	1645.0 64.76	18.2 0.71	7077 15603

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

SEALED ROLL NECK BEARINGS

Engineered for use in rolling mill roll neck applications with high-radial and axial load capacity. Timken four-row sealed tapered roller bearings (SRNB) offer reduced maintenance costs and extended bearing life.



Fig. 45. Sealed roll neck bearing.

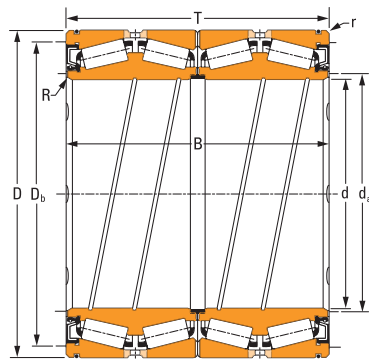


Fig. 46. Sealed roll neck bearing.

OVERALL DIMENSIONS:

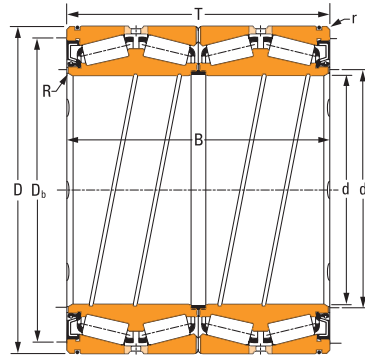
- d – Bore diameter
- D – Outer diameter
- T – Width over cups
- B – Width over cones
- R – Max. shaft radius
- d_a – Cone backing diameter
- r – Max. housing radius
- D_b – Cup backing diameter

SEALED ROLL NECK BEARING DESIGN TYPES

INTEGRATED SEAL DESIGNS

SRNB-1

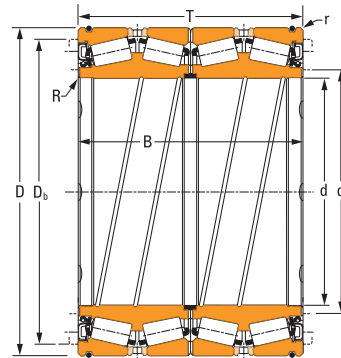
- Two double cones with front face lubrication slots.
- Four single cups.
- Two cup spacers with holes and lubrication slots.
- Two main seals (snap-in mounting).
- One bore seal.
- Two O-ring seals on cups.
- Spiral grooves on cone bore.



SRNB-1

SRNB-2

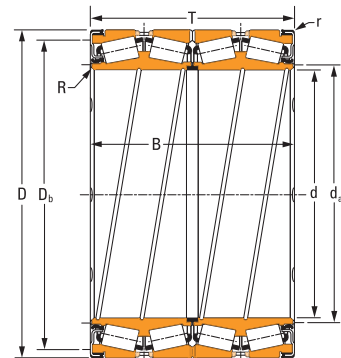
- Two double cones with front face lubrication slots.
- Four single cups.
- Two cup spacers with holes and lubrication slots.
- Two main seals (staked mounting).
- One bore seal.
- Two O-ring seals on cups.
- Spiral grooves on cone bore.



SRNB-2

SRNB-3

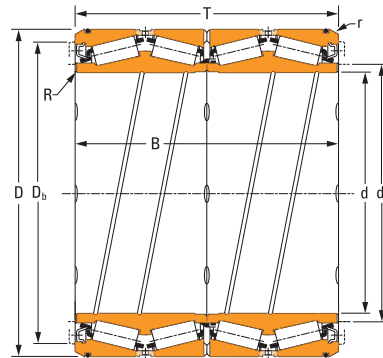
- Two double cones with front face lubrication slots.
- Four single cups.
- Two cup spacers with holes and lubrication slots.
- Two main seals with integrated seal lips at cup outer diameter.
- One bore seal.
- Spiral grooves on cone bore.



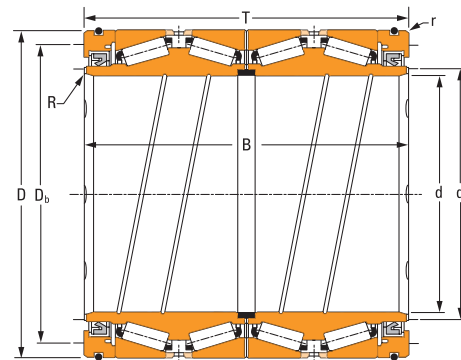
SRNB-3

SRNB-4

- Two double cones with front face lubrication slots.
- Four single cups.
- Two cup spacers with holes and lubrication slots.
- Two main seals (staked mounting).
- One bore seal inside the bearing.
- Two O-ring seals on cups.
- Spiral grooves on cone bore.
- Select sizes only.

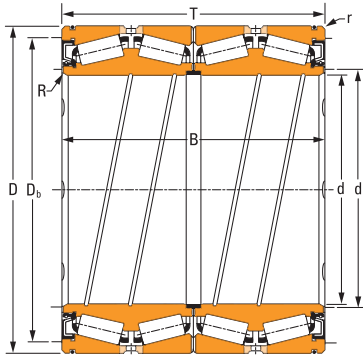
**SRNB-4****SEAL CARRIER DESIGNS****SRNB-5**

- Two double cones with front face lubrication slots.
- Four single cups.
- Two cup spacers with holes and lubrication slots.
- One bore seal.
- Two seal carriers including one main seal and one O-ring seal.
- Spiral grooves on cone bore.
- Active design type.

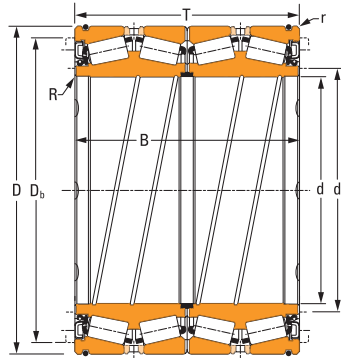
**SRNB-5****Options for all figures (not illustrated):**

- Central double cup and two single cups.
- Two solid cup spacers without holes and lubrication slots.

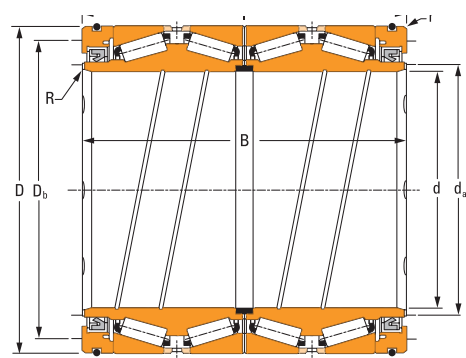
Note: The main seal is not interchangeable between the sealed roll neck bearings design types illustrated.



SRNB-1



SRNB-2



SRNB-5

TABLE 54. SRNB PRODUCT DATA

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width Over Cups T	Width Over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
195 7.6772	270 10.6300	250 9.8425	250 9.8425	1560 350000	0.49	1.38	2.06	116 26100	97 21800	404 90800	1.20
206.375 8.1250	282.575 11.1250	190.500 7.5000	190.500 7.5000	1650 370000	0.46	1.46	2.18	123 27600	96 21700	428 96200	1.27
220 8.6614	295 11.6142	315 12.4016	315 12.4016	1844 414000	0.37	1.81	2.70	137 30900	88 19700	478 107400	1.57
220 8.6614	295 11.6142	315 12.4016	315 12.4016	2020 456000	0.35	1.90	2.84	151 34000	91 20500	526 118200	1.65
220.663 8.6875	314.325 12.3750	239.712 9.4375	239.712 9.4375	2080 466000	0.40	1.67	2.49	155 34700	106 23900	538 121000	1.45
228.600 9.0000	311.150 12.2500	200.025 7.875	200.025 7.875	1804 406000	0.35	1.95	2.91	134 30200	80 17900	468 105200	1.69
240 9.4488	320 12.5984	294 11.5748	294 11.5748	2660 600000	0.32	2.10	3.13	198 44600	109 24500	690 155400	1.82
240 9.4488	338 13.3071	340 13.3858	340 13.3858	3220 724000	0.39	1.73	2.58	240 53900	160 35900	836 187800	1.50
241.478 9.5070	349.148 13.7460	228.600 9.0000	228.600 9.0000	2680 604000	0.36	1.89	2.82	200 45000	122 27500	696 156600	1.64
244.975 9.6447	344.950 13.5807	310.000 12.2047	310.000 12.2047	2340 524000	0.38	1.75	2.61	174 39100	114 25600	606 136000	1.52
244.975 9.6447	344.950 13.5807	310.000 12.2047	310.000 12.2047	2340 524000	0.38	1.75	2.61	174 39100	114 25600	606 136000	1.52
247.650 9.7500	393.700 15.5000	269.875 10.6250	269.875 10.6250	3340 754000	0.41	1.66	2.48	249 56100	173 38900	868 195200	1.44
254.000 10.0000	358.775 14.1250	269.875 10.6250	269.875 10.6250	3200 720000	0.37	1.82	2.72	239 53600	151 33900	830 186800	1.58
260 10.2362	365 14.3701	340 13.3858	340 13.3858	3680 828000	0.40	1.67	2.49	274 61600	188 42400	954 214000	1.45

Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Seals Part No.		Mounting Dimensions				Weight
Double Cone	Single Cup	Double Cup			Main Seal Bore Seal	O-Ring	Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	
							mm in.	mm in.	mm in.	mm in.	kg lbs.
NP935171	NP276066	NP826915	SRNB-5	S	K168886 K168887D	K168883	2.0 0.08	211.0 8.31	2.5 0.10	237.0 9.33	43.0 96.0
NP460933	NP569052	NP194676	SRNB-1	S	K172726 K172725D	K143208	1.5 0.06	220.0 8.66	3.3 0.13	269.0 10.59	33.0 72.3
NP851756	NP977224	NP715336	SRNB-5 ⁽³⁾	S	K163013 K154654D	K163012	1.0 0.04	234.0 9.21	2.5 0.10	277.0 10.91	57.0 125
NP115001	NP350673	—	SRNB-5 ⁽³⁾	S	K163013 —	K163012	1.0 0.04	233.0 9.17	2.5 0.10	277.0 10.91	54.0 120
NP617527	NP858496 NP681156	—	SRNB-1	S	K172130 K154654D	K161576	1.5 0.06	237.0 9.33	3.3 0.13	288.0 11.34	58.0 128
NP823863	NP889258 NP371639	—	SRNB-1	S	K167010 K989560D	K161576	1.5 0.06	242.0 9.53	3.3 0.13	297.0 11.69	40.0 87.0
NP489116	NP396002	NP752460	SRNB-5 ⁽³⁾	S	K168183 K160513D	K166801	2.0 0.08	253.0 9.96	3.0 0.12	303.0 11.93	62.0 137
NP526790	NP696265	NP579685	SRNB-5 ⁽³⁾	S	K163450 K160513D	K163009	1.5 0.06	258.0 10.16	4.0 0.15	314.0 12.36	93.0 206
NP210270	NP905752 NP402263	—	SRNB-2	S	K161427W K154636-D	K161435	1.5 0.06	259.0 10.20	3.3 0.13	328.0 12.91	70.0 155
NP167500	NP625346 NP462195	—	SRNB-5 ⁽³⁾	S	K159547 K159546	K159548	1.5 0.06	263.0 10.35	3.3 0.13	325.0 12.80	89.0 196
NP167500	NP625346 NP462195	—	SRNB-5	S	K159547H K159546	K160681	1.5 0.06	263.0 10.35	3.3 0.13	325.0 12.80	89.0 196
NP390849	NP734279 NP454413	—	Spec. ⁽²⁾	S	K167198 K154950D	K161380	1.5 0.06	275.0 10.83	3.3 0.13	371.0 14.61	126 278
NP831379	NP700160 NP922491	—	SRNB-1 ⁽³⁾	S	K168960 K156772D	K158925	3.3 0.13	271.0 10.67	5.0 0.20	340.0 13.39	81.0 178
NP588161	NP860998 NP434683	—	SRNB-5	S	K171942 K172086D	K147807	2.5 0.10	278.0 10.94	4.0 0.15	339.0 13.35	97.0 214

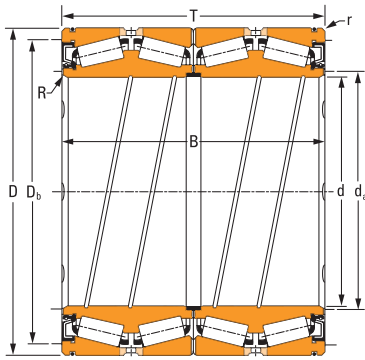
⁽¹⁾Cage type: S—Stamped steel, P—Pin type.

⁽²⁾Designs are specially customized SRNB. Contact your Timken engineer for details.

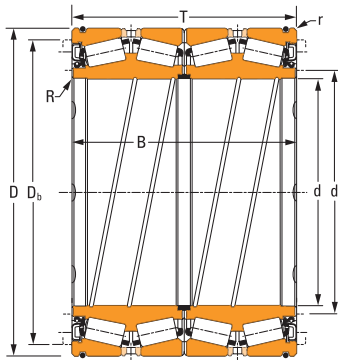
⁽³⁾Two cup spacers without holes and lube slots.

NOTE: Assembly weight does not include seals, springs or auxiliary components.

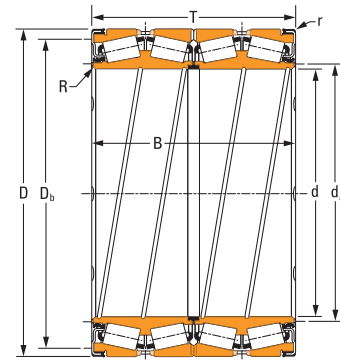
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SRNB-1



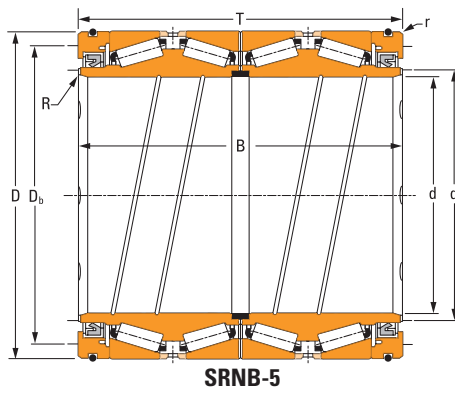
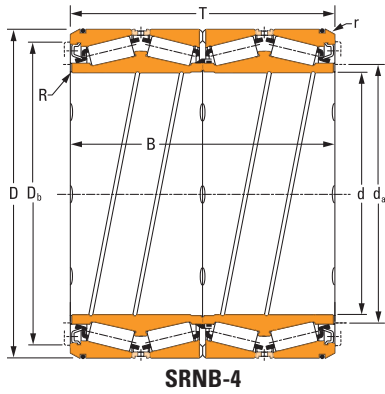
SRNB-2



SRNB-3

TABLE 54. SRNB PRODUCT DATA –continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width Over Cups T	Width Over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
266.700 10.5000	355.600 14.0000	228.600 9.0000	230.185 9.0624	2660 598000	0.36	1.87	2.79	198 44500	122 27400	688 154800	1.62
269.875 10.6250	381.000 15.0000	182.575 11.1250	182.575 11.1250	3860 866000	0.33	2.03	3.03	287 64500	163 36700	1000 224000	1.76
273.050 10.7500	380.898 14.9960	244.475 9.6250	244.475 9.6250	2920 656000	0.33	2.03	3.03	217 48900	124 27800	758 170200	1.76
276.225 10.8750	393.700 15.5000	269.875 10.6250	269.875 10.6250	3480 784000	0.39	1.72	2.56	260 58400	174 39200	904 204000	1.49
279.400 11.0000	393.700 15.5000	269.875 10.6250	269.875 10.6250	3340 754000	0.41	1.66	2.48	249 56100	173 38900	868 195200	1.44
279.578 11.0070	380.898 14.9960	244.475 9.6250	244.475 9.6250	2920 656000	0.33	2.03	3.03	217 48900	124 27800	758 170200	1.76
279.975 11.0226	379.948 14.9586	289.966 11.4160	290.017 11.4180	4620 1038000	0.37	1.80	2.68	344 77300	220 49500	1196 270000	1.56
280 11.0236	380 14.9606	340 13.3858	340 13.3858	3820 858000	0.37	1.80	2.68	284 63800	182 40900	988 222000	1.56
280 11.0236	395 15.5512	340 13.3858	340 13.3858	3920 882000	0.40	1.67	2.49	292 65600	201 45100	1016 228000	1.45
285.750 11.2500	380.898 14.9960	244.475 9.6250	244.475 9.6250	2920 656000	0.33	2.03	3.03	217 48900	124 27800	758 170200	1.76
295 11.6142	389.95 15.3524	216 8.5039	220 8.6614	2960 666000	0.34	1.97	2.94	220 49600	129 29000	768 172600	1.71
304.648 11.9940	438.048 17.2460	279.400 11.0000	280.990 11.0626	3840 864000	0.42	1.61	2.41	286 64300	204 45800	996 224000	1.40
304.800 12.0000	419.100 16.5000	269.875 10.6250	269.875 10.6250	3880 872000	0.32	2.11	3.15	289 64900	158 35500	1006 226000	1.83
304.902 12.0040	412.648 16.2460	266.700 10.5000	266.700 10.5000	3820 858000	0.33	2.03	3.03	284 63900	162 36400	990 222000	1.76



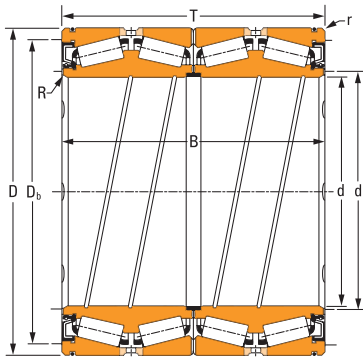
Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Seals Part No.		Mounting Dimensions				Weight
Double Cone	Single Cup	Double Cup			Main Seal Bore Seal	O-Ring	Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	
						mm in.	mm in.	mm in.	mm in.	kg lbs.	
NP348929	NP193569 NP554698	–	SRNB-1	S	K167951 K154950D	K158925	1.5 0.06	280.0 11.02	3.3 0.13	336.0 13.23	60.0 132
NP954936	NP844081 M252514W	–	SRNB-1	S	K172114 K155042D	K160590	3.3 0.13	291.3 11.47	3.3 0.13	354.0 13.94	100 220
NP810309	NP982855 NP719384	–	SRNB-1	S	K167198 K156713D	K158926	1.5 0.06	292.0 11.50	3.3 0.13	363.0 14.29	80.0 177
NP814280	NP636997	NP203467	SRNB-1 ⁽³⁾	S	K168011 K156713D	K161380	3.2 0.13	300.0 11.81	3.3 0.13	370.0 14.57	112 238
NP962698	NP922382 NP822302	–	SRNB-1	S	K167198 K156713D	K161380	3.2 0.13	300.0 11.81	3.3 0.13	371.0 14.61	97.0 218
NP919993	NP982855 NP719384	–	SRNB-1	S	K167198 K156713D	K158926	1.5 0.06	297.0 11.69	3.3 0.13	363.0 14.29	75.0 166
NP229649	NP677008 NP834300	–	SRNB-4 ⁽³⁾	S	K160588W K160589W	K160590	3.3 0.13	299.0 11.77	6.4 0.25	351.0 13.82	88.0 193
NP385213	NP150229 NP183054	–	SRNB-5 ⁽³⁾	S	K168984 K166783D	K160590	1.5 0.06	296.0 11.65	4.0 0.15	350.0 13.78	109 241
NP116019	NP145534	NP178212	SRNB-5 ⁽³⁾	S	K166785 K166783-D	K160590	1.5 0.06	299.0 11.77	4.0 0.16	367.0 14.45	128 282
NP558574	NP982855 NP719384	–	SRNB-1	S	K167198 K154626D	K158926	1.5 0.06	301.0 11.85	3.3 0.13	363.0 14.29	70.0 154
NP163219	JLM355311W JLM355311X	–	SRNB-3	S	K156820-B K154610-D	–	1.5 0.06	308.0 12.13	3.3 0.13	374.0 14.72	66.0 146
NP464305	NP770366 NP525517	–	SRNB-2	S	K161678W K154642D	K161679	3.3 0.13	327.0 12.87	4.8 0.19	409.0 16.10	135 298
NP898539	NP423054 NP983557	–	SRNB-1	S	K168140 K154642D	K161828	3.3 0.13	328.0 12.91	7.0 0.28	397.0 15.63	107 237
NP435619	NP517253 NP152501	–	SRNB-2	S	K162548 K154642D	K161828	3.3 0.13	322.0 12.68	1.5 0.06	395.0 15.55	98.0 217

⁽¹⁾Cage type: S – Stamped steel, P – Pin type.

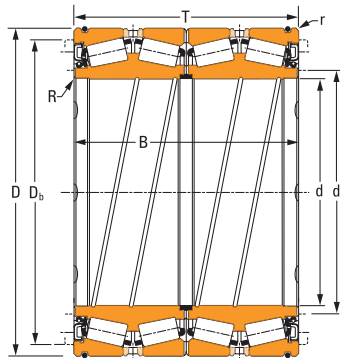
⁽²⁾Two cup spacers without holes and lube slots.

NOTE: Assembly weight does not include seals, springs or auxiliary components.

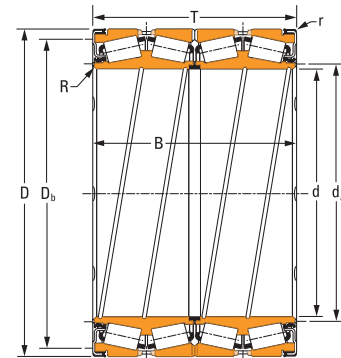
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SRNB-1



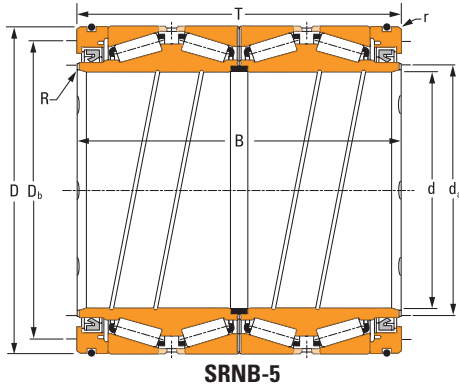
SRNB-2



SRNB-3

TABLE 54. SRNB PRODUCT DATA –continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width Over Cups T	Width Over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
305.003 12.0080	438.048 17.2460	279.400 11.0000	280.990 11.0626	3840 864000	0.42	1.61	2.41	286 64300	204 45800	996 224000	1.40
310 12.2047	430 16.9291	350 13.7795	350 13.7795	4680 1052000	0.34	1.96	2.92	348 78300	205 46100	1214 272000	1.70
317.500 12.5000	422.275 16.6250	269.875 10.6250	269.875 10.6250	3880 872000	0.32	2.11	3.15	289 64900	158 35500	1006 226000	1.83
317.500 12.5000	447.675 17.6250	327.026 12.8750	367.000 14.4488	5380 1210000	0.34	2.01	2.99	400 90000	230 51600	1394 314000	1.74
330.302 13.0040	438.023 17.2450	254.000 10.0000	247.650 9.7500	2560 574000	0.46	1.46	2.18	190 42765	150 33673	662 149000	1.27
341.312 13.4375	457.098 17.9960	254.000 10.0000	254.000 10.0000	3660 822000	0.47	1.43	2.13	272 61200	220 49600	948 214000	1.24
343.052 13.5060	457.098 17.9960	254.000 10.0000	254.000 10.0000	3660 822000	0.47	1.43	2.13	272 61200	220 49600	948 214000	1.24
343.052 13.5060	457.098 17.9960	254.000 10.0000	254.000 10.0000	3100 696000	0.71	0.94	1.41	230 51800	282 63400	802 180200	0.82
355.600 14.0000	457.200 18.0000	252.413 9.9375	252.413 9.9375	3220 724000	0.39	1.71	2.54	240 53900	162 36300	834 187600	1.48
355.600 14.0000	482.600 19.0000	269.876 10.6250	265.116 10.4376	4200 944000	0.45	1.49	2.22	312 70200	242 54300	1088 244000	1.29
355.600 14.0000	488.950 19.2500	265.110 10.4374	265.110 10.4374	4200 944000	0.45	1.49	2.22	312 70200	242 54300	1088 244000	1.29
355.600 14.0000	488.950 19.2500	317.500 12.5000	317.500 12.5000	5380 1208000	0.33	2.03	3.03	400 89900	228 51200	1394 314000	1.76
384.175 15.1250	546.100 21.5000	400.050 15.7500	400.050 15.7500	7800 1752000	0.33	2.03	3.03	580 130000	330 74300	2020 454000	1.76
390 15.3543	510 20.0787	350 13.7795	350 13.7795	5360 1204000	0.42	1.61	2.41	399 89600	285 64200	1388 312000	1.40



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Seals Part No.		Mounting Dimensions				Weight
Double Cone	Single Cup	Double Cup			Main Seal Bore Seal	O-Ring	Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	
							mm in.	mm in.	mm in.	mm in.	kg lbs.
NP377177	NP770366 NP525517	–	SRNB-2	S	K161678W K154642D	K161679	3.3 0.13	327.0 12.87	4.8 0.19	409.0 16.10	135 297
NP305400	NP399131 NP797709	–	SRNB-1	S	K168140 169005D	K161828	3.2 0.13	331.0 13.03	4.0 0.16	407.0 16.02	151 334
NP683330	NP431159 NP495291	–	SRNB-1	S	K168140 K155117D	K161828	3.3 0.13	332.0 13.07	3.3 0.13	403.0 15.87	99.0 218
NP293697	HM259010	NP341864	SRNB-5	S	K171737 K155117D	K171739	3.3 0.13	337.0 13.27	4.0 0.16	421.0 16.57	178 392
NP326850	NP672263	NP418102	SRNB-1	S	K172943 K172942D	K161679	1.5 0.06	347.0 13.66	3.3 0.13	415.0 16.34	97.0 213
NP416510	NP572730 NP716053	–	SRNB-1	S	K166774 K150490D	K160139	1.5 0.06	365.0 14.37	3.3 0.13	432.0 17.01	111 245
NP996241	NP572730 NP716053	–	SRNB-1	S	K166774 K150490D	K160139	1.5 0.06	365.0 14.37	3.3 0.13	432.0 17.01	108 237
NP719584	NP900043 NP507595	–	SRNB-1	S	K166774 K150490D	K160139	1.5 0.06	365.0 14.37	3.3 0.13	434.0 17.09	110 243
NP974481	NP367732 NP302939	–	SRNB-3 ⁽³⁾	S	K158410 K154614-D	–	1.5 0.06	366.0 14.41	2.0 0.08	432.0 17.01	96.0 211
NP535762	NP891852 NP749583	–	SRNB-1 ⁽³⁾	S	K172853 K154614D	K161253	1.5 0.06	374.0 14.72	3.3 0.13	454.0 17.87	135 296
NP096778	NP002880 NP554240	–	SRNB-2	S	K161252G K154614-D	K161253	1.5 0.06	374.0 14.72	3.3 0.13	462.0 18.19	143 316
NP587863	NP188304 NP897726	–	Spec. ⁽²⁾	S	K161586W –	K161253	1.5 0.06	374.0 14.72	3.3 0.13	468.0 18.43	171 378
NP375407	NP311778 NP195533	–	SRNB-1	S	K172419 K161475D	K161476	3.0 0.12	410.0 16.14	6.4 0.25	513.0 20.20	283 622
NP338451	NP867621 NP527928	–	SRNB-5	S	K167837 K172672D	K172669	2.0 0.08	410.0 16.14	4.5 0.18	479.0 18.86	184 405

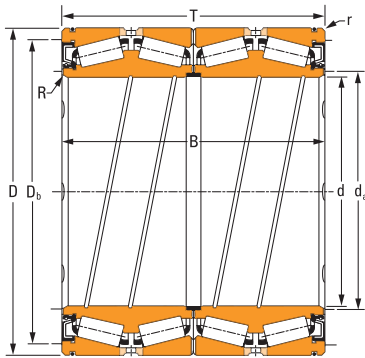
⁽¹⁾Cage type: S—Stamped steel, P—Pin type.

⁽²⁾Designs are specially customized SRNB. Contact your Timken engineer for details.

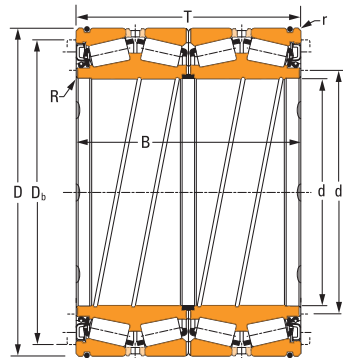
⁽³⁾Two cup spacers without holes and lube slots.

NOTE: Assembly weight does not include seals, springs or auxiliary components.

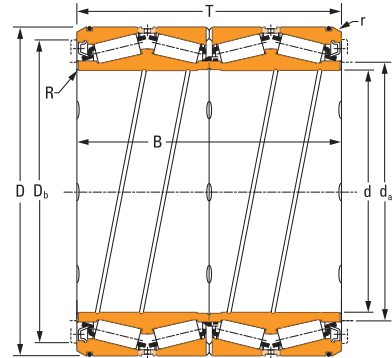
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SRNB-1



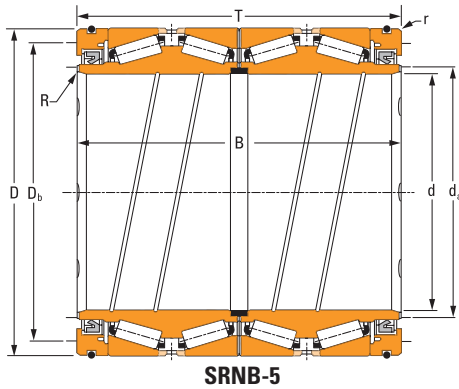
SRNB-2



SRNB-4

TABLE 54. SRNB PRODUCT DATA –continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width Over Cups T	Width Over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
406.400 16.0000	546.100 21.5000	288.924 11.3750	288.924 11.3750	5140 1154000	0.43	1.58	2.35	382 86000	279 62600	1332 300000	1.37
406.400 16.0000	546.100 21.5000	330.000 12.9921	330.000 12.9921	5240 1178000	0.47	1.42	2.11	390 87600	316 71100	1358 306000	1.23
406.400 16.0000	562.000 22.1260	381.000 15.0000	381.000 15.0000	7400 1666000	0.33	2.03	3.03	552 124000	314 70600	1922 432000	1.76
409.575 16.1250	546.100 21.5000	334.975 13.1880	334.975 13.1880	4500 1012000	0.61	1.11	1.65	335 75300	347 78100	1166 262000	0.96
415.925 16.3750	590.550 23.2500	435.000 17.1260	435.000 17.1260	7560 1698000	0.58	1.15	1.72	562 126000	563 126000	1958 440000	1.00
430.000 16.9291	575.000 22.6378	380.000 14.9606	380.000 14.9606	6340 1428000	0.44	1.53	2.29	473 106000	355 79700	1646 370000	1.33
431.800 17.0000	571.500 22.5000	336.550 13.2500	336.550 13.2500	6140 1380000	0.44	1.53	2.29	457 103000	344 77300	1592 358000	1.33
440 17.3228	590 23.2283	481.5 18.9567	481.5 18.9567	8960 2020000	0.34	2.00	2.97	667 150000	385 86500	2320 522000	1.73
449.948 17.7145	594.949 23.4232	368.000 14.4882	368.000 14.4882	7400 1664000	0.30	2.26	3.37	551 124000	282 63300	1920 432000	1.96
457.200 18.0000	596.900 23.5000	279.400 11.0000	276.225 10.8750	4920 1108000	0.41	1.66	2.48	367 82400	254 57100	1278 288000	1.44
457.200 18.0000	606.000 23.8583	381.000 15.0000	381.000 15.0000	7500 1688000	0.30	2.22	3.30	559 126000	291 65400	1946 438000	1.92
459.949 18.1082	624.924 24.6033	421.000 16.5748	421.000 16.5748	8740 1962000	0.33	2.03	3.03	650 146000	370 83200	2260 508000	1.76
482.600 19.0000	615.950 24.2500	330.200 13.0000	330.200 13.0000	6480 1458000	0.33	2.03	3.03	483 109000	275 61800	1682 378000	1.76
482.600 19.0000	615.950 24.2500	379.984 14.9600	379.984 14.9600	5400 1214000	0.33	2.03	3.03	402 90300	229 51400	1400 314000	1.76



Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Seals Part No.		Mounting Dimensions				Weight
Double Cone	Single Cup	Double Cup			Main Seal Bore Seal	O-Ring	Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	
							mm in.	mm in.	mm in.	mm in.	kg lbs.
NP041977	NP764990 NP665211	–	SRNB-2	S	K161769W K151558-D	K161476	1.5 0.06	425.0 16.73	6.4 0.25	516.0 20.31	182 402
NP706368	NP690776 NP142142	–	SRNB-2	S	K161769W K151558-D	K161476	1.5 0.06	435.0 17.13	6.4 0.25	516.0 20.31	208 459
NP553477	NP251593 NP598814	–	SRNB-1	S	K168907 K151558D	K160971	3.3 0.13	413.0 16.26	6.4 0.25	534.0 21.02	265 585
NP561275	NP749991 NP851566	–	SRNB-5	S	K162042 K157241-D	K161476	3.3 0.13	428.0 16.85	7.8 0.31	510.0 20.08	203 448
NP895224	NP245765 NP674510	–	SRNB-1	S	K172121 K162927D	K160770	3.3 0.13	444.0 17.48	6.4 0.25	540.0 21.26	392 863
NP800471	NP464316 NP023656	–	SRNB-2	S	K162880 K154634D	K160971	1.5 0.06	452.0 17.80	6.4 0.25	537.0 21.14	274 604
NP186641	NP712790 NP371617	–	SRNB-2 ⁽³⁾	S	K162880 K154634D	K160971	2.0 0.08	453.0 17.83	3.3 0.13	537.0 21.14	231 509
NP981440	NP672703	NP649333	SRNB-4 ⁽³⁾	S	K161953W K161954W	K160770	3.5 0.14	463.0 18.23	7.5 0.30	552.0 21.73	365 805
NP189922	NP714743 LM170414W	–	SRNB-1	S	K168035 K154629D	K160770	3.0 0.12	481.0 18.94	6.0 0.24	567.0 22.32	268 592
NP428889	NP645122 NP491642	–	SRNB-1	S	K172122 K161432D	K160770	3.0 0.12	480.0 18.90	3.5 0.14	570.0 22.44	199 440
NP062614	NP575276 NP779521	–	SRNB-2	S	K163369NS K161432D	K160770	3.0 0.12	482.0 18.98	6.0 0.24	576.0 22.68	289 638
NP105083	NP142188 NP542454	–	SRNB-1	S	K168078 K161432D	K153379	3.0 0.12	486.0 19.13	9.0 0.35	588.0 23.15	361 797
NP471919	NP649954 NP944636	–	SRNB-1	S	K167867 K150475D	K153379	6.4 0.25	507.0 19.96	6.5 0.25	585.0 23.03	232 511
NP998820	NP353430	–	Spec. ⁽²⁾	S	K161682 –	K153379	3.3 0.13	507.0 19.96	6.0 0.24	585.0 23.03	258 568

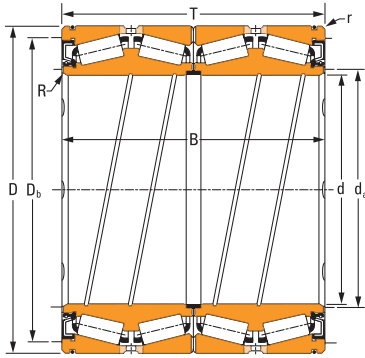
⁽¹⁾Cage type: S—Stamped steel, P—Pin type.

⁽²⁾Designs are specially customized SRNB. Contact your Timken engineer for details.

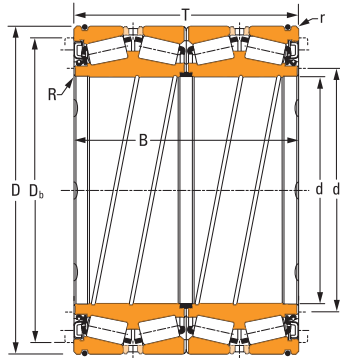
⁽³⁾Two cup spacers without holes and lube slots.

NOTE: Assembly weight does not include seals, springs or auxiliary components.

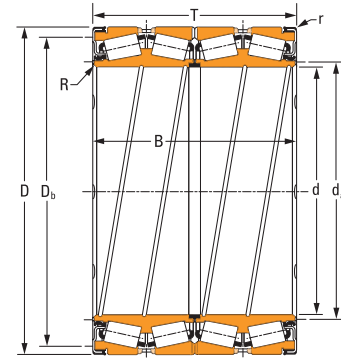
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SRNB-1



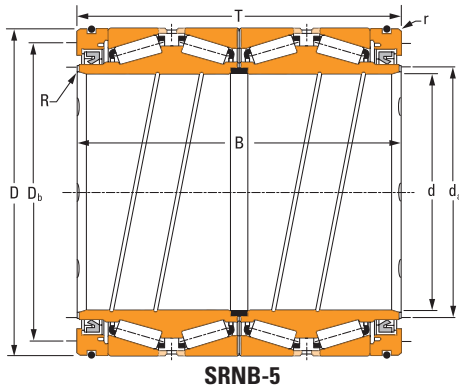
SRNB-2



SRNB-3

TABLE 54. SRNB PRODUCT DATA –continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width Over Cups T	Width Over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
482.600 19.0000	615.950 24.2500	377.825 14.8750	406.400 16.0000	6760 1520000	0.33	2.03	3.03	503 113000	286 64400	1752 394000	1.76
482.600 19.0000	615.950 24.2500	400.050 15.7500	400.050 15.7500	7080 1592000	0.33	2.03	3.03	527 118000	300 67400	1834 412000	1.76
482.600 19.0000	615.950 24.2500	400.050 15.7500	419.100 16.5000	6480 1458000	0.33	2.03	3.03	483 109000	275 61800	1682 378000	1.76
482.600 19.0000	615.950 24.2500	500.000 19.6850	500.000 19.6850	6480 1458000	0.33	2.03	3.03	483 109000	275 61800	1682 378000	1.76
482.600 19.0000	615.950 24.2500	379.984 14.9600	379.984 14.9600	5400 1214000	0.33	2.03	3.03	402 90300	229 51400	1400 314000	1.76
489.026 19.2530	634.873 24.9950	315.696 12.4290	320.675 12.6250	6520 1468000	0.34	1.97	2.94	486 109000	283 63700	1692 380000	1.71
490 19.2913	625 24.6063	385 15.1575	385 15.1575	6820 1532000	0.33	2.04	3.04	507 114000	287 64500	1766 398000	1.77
510 20.0787	655 25.7874	379 14.9213	377 14.8426	8120 1824000	0.33	2.07	3.08	604 136000	337 75700	2100 472000	1.79
510 20.0787	655 25.7874	410 16.1417	408 16.0630	9980 2240000	0.33	2.07	3.08	743 167000	415 93200	2580 582000	1.79
514.350 20.2500	673.100 26.5000	422.275 16.6250	422.275 16.6250	8080 1816000	0.33	2.03	3.03	602 135000	342 77000	2100 470000	1.76
558.800 22.0000	736.600 29.0000	457.200 18.0000	455.612 17.9374	9960 2240000	0.35	1.95	2.91	741 167000	439 98800	2580 580000	1.69
585.788 23.0625	771.525 30.3750	479.425 18.8750	479.425 18.8750	11800 2660000	0.38	1.78	2.65	878 197000	571 128000	3060 688000	1.54
585.788 23.0625	771.525 30.3750	567.000 22.3228	567.000 22.3228	13140 2960000	0.33	2.03	3.03	979 220000	557 125000	3400 766000	1.76
609.600 24.0000	787.400 31.0000	361.950 14.2500	361.950 14.2500	8160 1834000	0.37	1.82	2.72	608 137000	386 86700	2120 476000	1.58



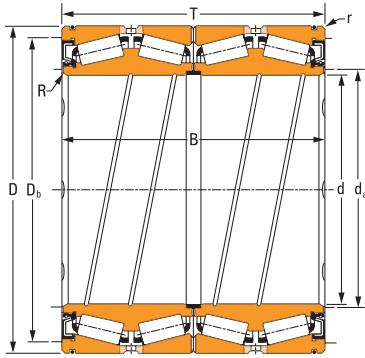
Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Seals Part No.		Mounting Dimensions				Weight
Double Cone	Single Cup	Double Cup			Main Seal Bore Seal	O-Ring	Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	
							mm in.	mm in.	mm in.	mm in.	kg lbs.
NP453574	NP672404 NP020698	–	Spec. ⁽²⁾	S	K167867 K150475D	K153379	4.0 0.16	507.0 19.96	6.4 0.25	582.0 22.91	267 588
NP216529	NP703196	–	Spec. ⁽²⁾	P	K160722 –	K153379	6.4 0.25	504.0 19.84	6.4 0.25	582.0 22.91	280 616
NP630107	NP226360 NP944636	–	SRNB-5	S	K160722 K150475D	K153379	4.0 0.16	507.0 19.96	6.8 0.28	585.0 23.03	279 614
NP644633	NP649954 NP230083	–	Spec. ⁽²⁾	S	K167867 K150475D	K153379	6.4 0.25	507.0 19.96	6.5 0.25	585.0 23.03	341 752
NP313976	NP353430	–	Spec. ⁽²⁾	S	K161682 –	K153379	3.3 0.13	507.0 19.96	7.5 0.30	585.0 23.03	258 568
NP780879	LM372814X LM372814W	–	SRNB-3	S	K157000-B K156999-D	–	3.3 0.13	513.0 20.20	2.0 0.08	597.0 23.50	244 538
NP109340	NP964377 NP074589	–	SRNB-2	S	K167402 K167390-D	K153379	3.0 0.12	513.0 20.20	3.0 0.12	591.0 23.27	283 624
NP409679	NP713431 NP575237	–	SRNB-1	S	K168025 K160942D	K166962	1.5 0.06	531.0 20.91	6.4 0.25	624.0 24.57	313 691
DX283454	DX069432 DX013515	–	SRNB-2	S	K166963 K160942D	K166962	1.5 0.06	531.0 20.91	6.4 0.25	624.0 24.57	328 724
NP252590	NP193000	NP855595	SRNB-1	S	K172632 K172631D	K172629	3.3 0.13	543.0 21.38	6.4 0.25	645.0 25.39	387 852
NP877970	NP067586 NP954245	–	SRNB-2	S	K163909 K163907-D	K163911	4.0 0.16	588.0 23.15	6.4 0.25	693.0 27.28	509 1123
NP321803	NP312801 NP863730	–	SRNB-2	S	K162772 K160571-D	K160569	4.8 0.19	618.0 24.33	6.4 0.25	732.0 28.82	587 1295
NP264014	NP456220 NP460073	–	SRNB-5	P	K160570 K160571-D	K160569	3.3 0.13	615.0 24.21	6.4 0.25	726.0 28.58	695 1565
NP324718	L480210W L480210X	–	SRNB-3	p	K154138-B K154136-D	–	6.4 0.25	642.0 25.28	6.4 0.25	750.0 29.53	440 969

⁽¹⁾Cage type: S—Stamped steel, P—Pin type.

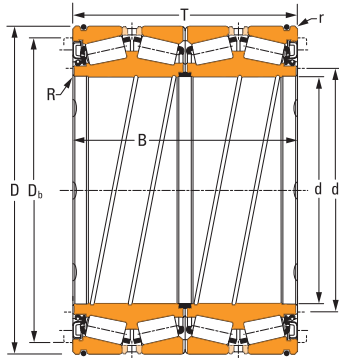
⁽²⁾Designs are specially customized SRNB. Contact your Timken engineer for details.

NOTE: Assembly weight does not include seals, springs or auxiliary components.

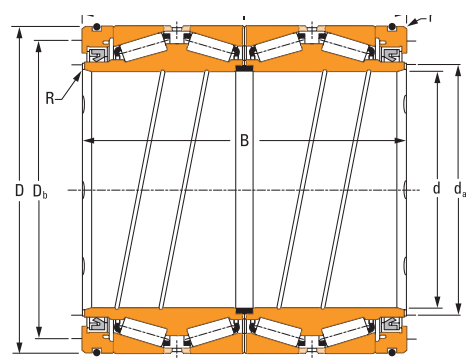
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SRNB-1



SRNB-2



SRNB-5

TABLE 54. SRNB PRODUCT DATA –continued

Bearing Dimensions				Load Ratings							
Bore d	O.D. D	Width Over Cups T	Width Over Cones B	One Million Revolutions				90 Million Revolutions			K Factor
				Dynamic Radial C ₁₍₄₎	e	Y ₁	Y ₂	Dynamic Radial C ₉₀	Dynamic Axial C _{a90}	Dynamic Radial C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
685.500 26.9882	862.000 33.9370	375.000 14.7638	375.000 14.7638	9600 2160000	0.33	2.03	3.03	715 161000	407 91500	2500 560000	1.76
685.800 27.0000	876.300 34.5000	355.600 14.0000	352.425 14.0000	9600 2160000	0.33	2.03	3.03	715 161000	407 91500	2500 560000	1.76
685.800 27.0000	876.300 34.5000	428.625 16.8750	428.625 16.8750	9600 2160000	0.33	2.03	3.03	715 161000	407 91500	2500 560000	1.76
708.025 27.8750	930.275 36.6250	565.150 22.2500	565.150 22.5000	15320 3440000	0.34	1.98	2.96	1140 256000	663 149000	3980 894000	1.72
710 27.9528	900 35.4331	410 16.1417	410 16.1417	9940 2240000	0.53	1.28	1.91	740 166000	665 149000	2580 580000	1.11
711.200 28.0000	914.400 36.0000	390.000 15.3543	390.000 15.3543	7800 1754000	0.43	1.57	2.34	581 131000	428 96200	2020 454000	1.36
711.200 28.0000	914.400 36.0000	420.000 16.5354	420.000 16.5354	7800 1754000	0.43	1.57	2.34	581 131000	428 96200	2020 454000	1.36
717.550 28.2500	946.150 37.2500	660.000 25.9843	660.000 25.9843	18620 4180000	0.33	2.03	3.03	1390 312000	790 178000	4820 1086000	1.76

Bearing Part No.			Design Type	Cage Type ⁽¹⁾	Seals Part No.		Mounting Dimensions				Weight
Double Cone	Single Cup	Double Cup			Main Seal Bore Seal	O-Ring	Max. Shaft Radius R	Cone Backing Diameter d _a	Max. Housing Radius r	Cup Backing Diameter D _b	
							mm in.	mm in.	mm in.	mm in.	kg lbs.
NP891876	NP250630 NP210109	–	SRNB-5	S	K159541 K156715-D	K159542	3.3 0.13	714.0 28.11	6.4 0.25	837.0 32.95	474 1042
NP145790	NP026760 NP809347	–	SRNB-2	S	K161690W K156715-D	K159542	3.3 0.13	714.0 28.11	6.4 0.25	843.0 33.19	503 1108
NP026261	NP524969 NP823567	–	Spec. ⁽²⁾	S	K161690W K156715-D	K159542	3.3 0.13	714.0 28.11	6.4 0.25	843.0 33.19	577 1272
NP388194	NP269019	NP928996	SRNB-5 ⁽³⁾	P	K161325W K161326D	K160938	4.0 0.16	744.0 29.29	6.4 0.25	882.0 34.72	1015 2237
NP019603	NP877539 NP559929	–	SRNB-1	S	K168965 K160937D	K160938	3.5 0.14	741.0 29.17	6.4 0.25	852.0 33.54	592 1306
NP778193	NP926680 NP928602	–	SRNB-5	P	K168128 K161326D	K160938	3.5 0.14	744.0 29.29	5.0 0.20	870.0 34.25	621 1368
NP746115	NP926680	NP354335	SRNB-5	P	K168128 K161326D	K160938	3.5 0.14	744.0 29.29	5.0 0.20	870.0 34.25	653 1440
NP839885	NP447874 NP455824	–	SRNB-5	P	K160566 K160567	K160565	3.3 0.13	753.0 29.65	6.4 0.25	894.0 35.20	1309 2885

⁽¹⁾Cage type: S—Stamped steel, P—Pin type.

⁽²⁾Designs are specially customized SRNB. Contact your Timken engineer for details.

⁽³⁾Two cup spacers without holes and lube slots.

NOTE: Assembly weight does not include seals, springs or auxiliary components.

TQITS BEARINGS

Developed for high-speed rolling mill roll-neck applications, these four-row tapered roller bearings are supplied with a tapered-bore bearing to minimize neck wear.



Fig. 47. TQITS bearing.

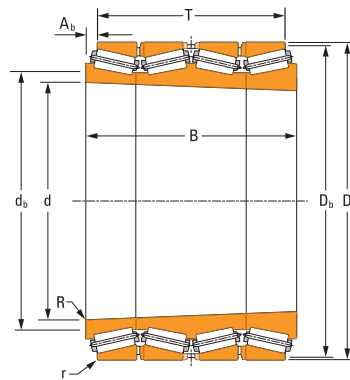


Fig. 48. TQITS bearing.

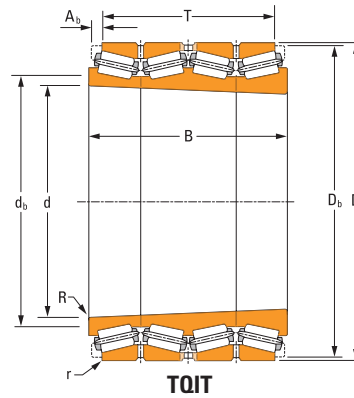
OVERALL DIMENSIONS:

- d – Bore diameter
- D – Outer diameter
- T – Width over cups
- B – Width over cones
- R – Max. shaft radius
- d_b – Cone backing diameter
- r – Max. housing radius
- D_b – Cup backing diameter
- A_b – Axial cage clearance

FOUR-ROW TAPERED ROLLER BEARING DESIGN TYPES TQITS (TIGHT FIT MOUNTING)

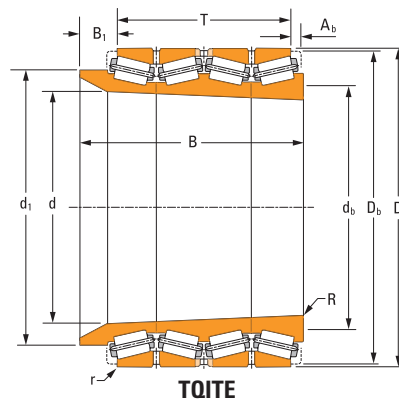
TQIT

- Two single inner rings.
- One double inner ring.
- Two double outer rings.
- One outer-ring spacer.
- Tapered bore.



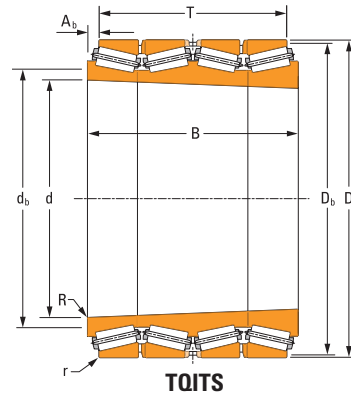
TQITE

- Two single inner rings, one with extended rib.
- One double inner ring.
- Two double outer rings.
- One outer-ring spacer.
- Tapered bore.



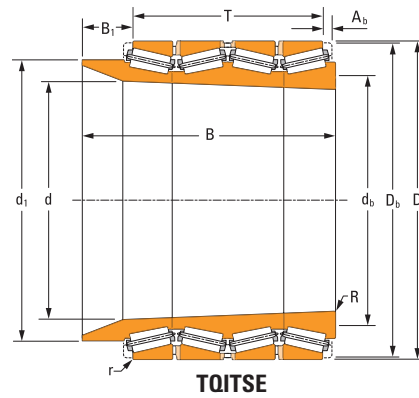
TQITS

- Two single inner rings.
- One double inner ring.
- Four single outer rings.
- Three outer-ring spacers.
- Tapered bore.



TQITSE

- Two single inner rings, one with extended rib.
- One double inner ring.
- Four single outer rings.
- Three outer-ring spacers.
- Tapered bore.



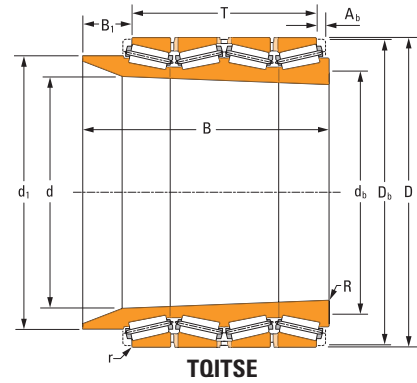
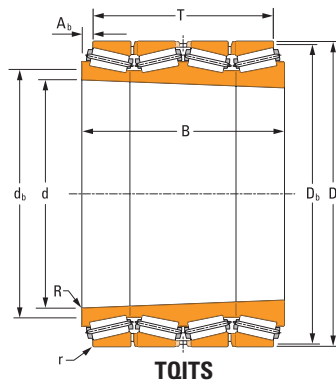
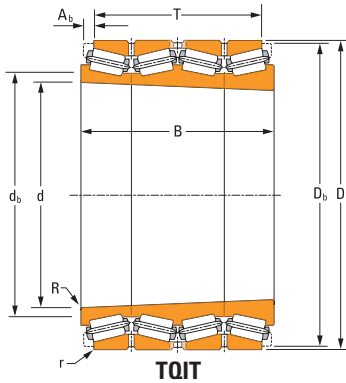


TABLE 55. TQITS PRODUCT DATA

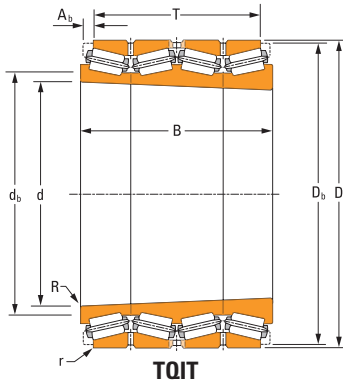
Bearing Dimensions						Load Ratings							
Bore ⁽¹⁾	O.D.	Width over Cups	Width over Cones			One Million Revolutions				90 Million Revolutions			K Factor
						Dynamic Radial				Dynamic Radial	Dynamic Axial	Dynamic Radial	
d	D	T	B	B ₁	d ₁	C ₁₁₍₄₎	e	Y ₁	Y ₂	C ₉₀	C _{a90}	C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
165.456 6.5140	229.946 9.0530	142.875 5.6250	165.100 6.5000	–	–	1094 246000	0.40	1.67	2.49	81.4 18300	56.0 12600	284 63800	1.45
175.781 6.9205	260.502 10.2560	142.901 5.6260	171.451 6.7500	–	–	1318 296000	0.40	1.67	2.49	98.2 22100	67.5 15200	342 76800	1.45
193.807 7.6302	269.875 10.6250	214.310 8.4374	279.397 10.9999	52.388 2.0625	234.950 9.2500	1802 406000	0.33	2.03	3.03	134 30200	76.4 17200	468 105000	1.76
190.500 7.5000	260.350 10.2500	169.073 6.6564	192.883 7.5938	–	–	1290 290000	0.40	1.70	2.53	96.0 21600	65.2 14700	334 75200	1.47
195.300 7.6890	259.969 10.2350	144.465 5.6876	161.925 6.3750	–	–	1114 250000	0.33	2.03	3.03	83.0 18700	47.3 10600	290 65000	1.76
200.820 7.9060	284.162 11.1875	219.075 8.6250	239.715 9.4375	–	–	1854 416000	0.33	2.03	3.03	138 31000	78.6 17700	480 108000	1.76
207.167 8.1562	292.100 11.5000	222.250 8.7500	286.545 11.2813	52.388 2.0625	254.000 10.0000	2080 470000	0.33	2.03	3.03	156 35000	88.5 19900	542 121800	1.76
207.962 8.1875	279.400 11.0000	168.275 6.6250	190.500 7.5000	–	–	1342 302000	0.46	1.45	2.17	100 22400	79.2 17800	348 78200	1.26
219.075 8.6250	288.925 11.3750	168.275 6.6250	190.500 7.5000	–	–	1414 318000	0.48	1.39	2.08	105 23700	86.7 19500	366 82400	1.21
225.425 8.8750	314.325 12.3750	230.188 9.0625	255.588 10.0625	–	–	2420 544000	0.33	2.03	3.03	180 40500	103 23100	628 141000	1.76
228.600 9.0000	311.150 12.2500	190.500 7.5000	212.725 8.3750	–	–	1876 422000	0.33	2.03	3.03	140 31400	79.5 17900	486 109400	1.76
247.650 9.7500	327.025 12.8750	187.325 7.3750	209.550 8.2500	–	–	1974 444000	0.32	2.10	3.13	147 33000	80.8 18200	512 115000	1.82
258.762 10.1874	358.775 14.1250	257.175 10.1250	292.100 11.5000	–	–	3180 716000	0.33	2.03	3.03	237 53300	135 30300	826 185600	1.76
271.462 10.6875	381 15.0000	269.875 10.6250	301.625 11.8750	–	–	4180 938000	0.33	2.03	3.03	311 69900	177 39800	1082 244000	1.76
287.500 11.3180	439.948 17.3208	284.000 11.1811	330.000 12.9921	–	–	4520 1014000	0.47	1.43	2.13	336 75500	272 61200	1170 262000	1.24

⁽¹⁾The bore diameter (d) corresponds to the large bore.

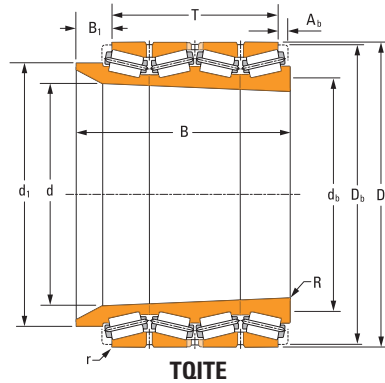
Bearing Part No.			Design Type	Cage Type ⁽²⁾	Mounting Dimensions					Weight
Single Cone (Smallest)	Single Cup	Double Cup			Max. Shaft Radius	Cone Backing Diameter	Max. Housing Radius	Cup Backing Diameter	Axial Cage Clearance	
					R	d _b	r	D _b	A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
LM533730T	–	LM533710D	TQIT	S	3.3 0.13	172.0 6.77	0.8 0.03	223.0 8.78	11.3 0.44	21.0 46.0
LM535630T	–	LM535610D	TQIT	S	3.3 0.13	183.0 7.20	0.8 0.03	246.9 9.72	11.1 0.44	29.0 65.0
M238832T	M238810	–	TQITSE	S	3.3 0.13	196.0 7.72	1.5 0.06	256.0 10.08	3.4 0.13	49.0 109
LM538630T	–	LM538614D	TQIT	S	3.3 0.13	197.0 7.76	0.8 0.03	251.0 9.88	9.9 0.39	33.0 72.0
LM239530T	–	LM239512D	TQIT	S	3.3 0.13	202.0 7.95	0.8 0.03	252.0 9.92	9.4 0.37	23.0 52.0
M240631T	–	M240611D	TQIT	S	3.3 0.13	207.0 8.15	1.5 0.06	272.0 10.71	10.7 0.42	51.0 113
M241530T	M241510	–	TQITSE	S	3.0 0.12	212.0 8.35	1.5 0.06	279.0 10.98	3.4 0.14	63.0 140
LM741330T	–	LM741314D	TQIT	S	3.3 0.13	215.0 8.46	0.8 0.03	271.0 10.67	10.4 0.41	35.0 78.0
LM742730T	–	LM742714D	TQIT	S	3.3 0.13	226.0 8.90	0.8 0.03	280.0 11.02	8.9 0.35	36.0 80.0
M244230T	–	M244210CD	TQIT	S	3.3 0.13	231.0 9.09	1.5 0.06	300.0 11.81	3.5 0.14	65.0 144
LM245130T	–	LM245110D	TQIT	S	3.3 0.13	235.0 9.25	1.5 0.06	300.0 11.81	10.9 0.43	50.0 111
LM247730T	–	LM247710D	TQIT	S	3.3 0.13	253.0 9.96	1.6 0.06	316.0 12.44	10.0 0.39	50.0 109
M249730T	–	M249710CD	TQIT	S	3.3 0.13	264.0 10.39	1.5 0.06	343.0 13.50	12.6 0.50	95.0 209
M252330T	–	M252310CD	TQIT	P	6.4 0.25	284.0 11.18	1.5 0.06	364.0 14.32	3.5 0.14	115 254
NP385038	NP385825	–	TQITS	S	5.0 0.20	303.0 11.93	6.4 0.25	414.0 16.30	3.5 0.14	184 405

⁽²⁾Cage type: S – Stamped steel, P – Pin type.

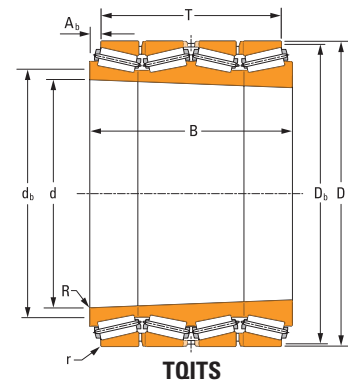
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TOIT



TOITE



TOITS

TABLE 55. TOITS PRODUCT DATA – continued

Bearing Dimensions						Load Ratings							
Bore ⁽¹⁾	O.D.	Width over Cups	Width over Cones			One Million Revolutions				90 Million Revolutions			K Factor
						Dynamic Radial	e	Y ₁	Y ₂	Dynamic Radial	Dynamic Axial	Dynamic Radial	
d	D	T	B	B ₁	d ₁	C ₁₍₄₎				C ₉₀	C _{a90}	C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
290.000 11.4170	406.949 16.0216	288.000 11.3386	319.999 12.5984	–	–	4140 932000	0.34	2.00	2.97	308 69300	179 40100	1074 242000	1.73
304.800 12.0000	422.275 16.6250	296.863 11.6875	334.963 13.1875	–	–	4520 1016000	0.34	2.00	2.97	336 75600	194 43600	1172 264000	1.73
328.480 12.9320	447.675 17.6250	323.850 12.7500	414.338 16.3125	73.025 2.8750	388.938 15.3125	5840 1312000	0.34	2.01	2.99	435 97800	249 56000	1514 340000	1.74
323.832 12.7499	422.275 16.6250	261.424 10.2923	290.000 11.4173	–	–	3440 772000	0.32	2.11	3.15	256 57500	140 31400	890 200000	1.83
339.935 13.3833	469.900 18.5000	299.200 11.7795	349.999 13.7795	–	–	4980 1122000	0.33	2.03	3.03	372 83500	212 47500	1294 290000	1.76
352.425 13.8750	488.950 19.2500	342.900 13.5000	384.175 15.1250	–	–	6020 1352000	0.34	2.01	2.99	448 101000	257 57700	1560 350000	1.74
358.775 14.1250	488.950 19.2500	341.312 11.8125	341.313 13.4375	–	–	5260 1182000	0.33	2.03	3.03	391 88000	223 50100	1362 306000	1.76
376.809 14.8350	519.862 20.4670	342.900 13.5000	381.000 15.0000	–	–	6020 1354000	0.33	2.03	3.03	448 101000	255 57400	1560 350000	1.76
391.071 15.3965	549.948 21.6515	384.175 15.1250	428.625 16.8750	–	–	8580 1926000	0.33	2.03	3.03	638 143000	363 81700	2220 500000	1.76
419.100 16.5000	590.550 23.2500	419.100 16.5000	469.901 18.5000	–	–	9940 2240000	0.33	2.03	3.03	740 166000	421 94800	2580 580000	1.76
453.390 17.8500	635.000 25.0000	446.088 17.5625	496.888 19.5625	–	–	11400 2560000	0.33	2.03	3.03	849 191000	484 109000	2960 664000	1.76
488.950 19.2500	679.450 26.7500	476.250 18.7500	525.000 21.0000	–	–	13000 2920000	0.33	2.03	3.03	968 218000	551 124000	3360 758000	1.76
508.000 20.0000	695.325 27.3750	393.700 15.5000	450.850 17.7500	–	–	10700 2400000	0.33	2.03	3.03	796 179000	453 102000	2780 624000	1.76
515.000 20.2750	699.948 27.5570	370.000 14.5669	420.000 16.5354	–	–	9520 2140000	0.35	1.95	2.91	709 159000	420 94500	2460 554000	1.69
530.225 20.8750	736.600 29.0000	519.112 20.4375	579.438 22.8125	–	–	13140 2960000	0.33	2.03	3.03	978 220000	557 125000	3400 766000	1.76

⁽¹⁾The bore diameter (d) corresponds to the large bore.

Bearing Part No.			Design Type	Cage Type ⁽²⁾	Mounting Dimensions					Weight
Single Cone (Smallest)	Single Cup	Double Cup			Max. Shaft Radius	Cone Backing Diameter	Max. Housing Radius	Cup Backing Diameter	Axial Cage Clearance	
					R	d _b	r	D _b	A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
M255429T	M255411	–	TQITS	P	3.5 0.14	296.0 11.65	3.5 0.14	388.1 15.28	13.8 0.54	141 312
HM256830T	–	HM256810D	TQIT	P	6.4 0.25	316.0 12.44	1.5 0.06	403.0 15.88	10.5 0.41	157 345
HM259030T	–	HM259011D	TQITE	P	6.0 0.24	334.0 13.15	1.5 0.06	427.7 16.84	13.6 0.54	197 435
LM258630T	LM258610	–	TQITS	S	6.5 0.26	332.0 13.07	3.3 0.13	406.0 15.98	11.8 0.46	117 258
M262430T	–	M262410D	TQIT	S	3.3 0.13	347.0 13.66	1.5 0.06	450.8 17.75	12.6 0.50	194 427
HM262730T	–	HM262710CD	TQIT	P	6.4 0.25	364.0 14.33	1.5 0.06	467.0 18.39	3.6 0.14	240 529
M263330T	–	M263310D	TQIT	P	3.3 0.13	365.0 14.37	1.5 0.06	467.2 18.39	11.3 0.45	200 440
M265330T	–	M265311D	TQIT	P	3.3 0.13	383.0 15.08	3.2 0.13	498.9 19.64	9.4 0.37	248 546
HM266432T	HM266413	–	TQITS	P	6.4 0.25	403.0 15.87	1.5 0.06	525.0 20.67	3.7 0.14	352 776
M268729T	–	M268710D	TQIT	P	6.4 0.25	431.0 16.97	1.5 0.06	562.0 22.13	17.45 0.69	448 988
M270730T	–	M270710CD	TQIT	P	6.4 0.25	465.0 18.31	1.5 0.06	605.1 23.82	3.7 0.15	543 1197
M272730T	–	M272710CD	TQIT	P	6.4 0.25	500.0 19.69	1.5 0.06	648.0 25.52	3.8 0.15	661 1458
LM274030T	–	LM274010D	TQIT	P	6.4 0.25	522.0 20.55	1.5 0.06	663.0 26.10	20.8 0.82	541 1192
NP228978	NP741618	–	TQITS	S	6.0 0.24	531.0 20.91	6.0 0.24	672.0 26.46	3.6 0.14	483 1064
M275330T	–	M275310D	TQIT	P	6.4 0.25	540.0 21.26	1.5 0.06	702.3 27.65	19.6 0.77	863 1902

⁽²⁾Cage type: S – Stamped steel, P – Pin type.

Continued on next page.

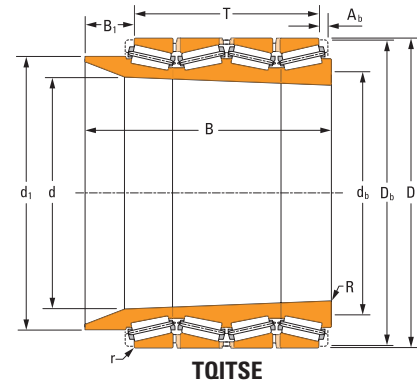
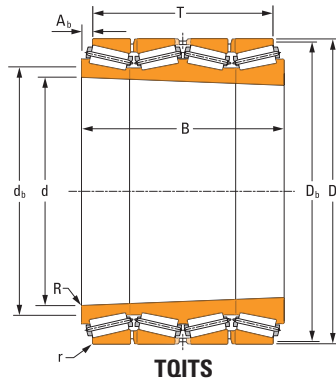
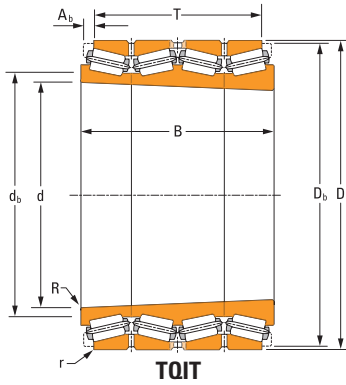


TABLE 55. TOITS PRODUCT DATA – continued

Bearing Dimensions						Load Ratings							
Bore ⁽¹⁾	O.D.	Width over Cups	Width over Cones			One Million Revolutions				90 Million Revolutions			K Factor
						Dynamic Radial				Dynamic Radial	Dynamic Axial	Dynamic Radial	
d	D	T	B	B ₁	d ₁	C ₁₁₍₄₎	e	Y ₁	Y ₂	C ₉₀	C _{a90}	C ₉₀₍₄₎	
mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kN lbf				kN lbf	kN lbf	kN lbf	
547.687 21.5625	761.873 29.9950	536.575 21.1250	600.075 23.6250	–	–	13960 3140000	0.33	2.03	3.03	1040 234000	592 133000	3620 814000	1.76
604.838 23.8125	787.400 31.0000	369.888 14.5625	420.688 16.5625	–	–	9500 2140000	0.33	2.03	3.03	708 159000	403 90600	2460 554000	1.76
644.525 25.3750	857.250 33.7500	523.877 20.6250	590.550 23.2500	–	–	16360 3680000	0.33	2.03	3.03	1220 274000	694 156000	4240 954000	1.76
669.671 26.3650	933.450 36.7500	649.288 25.5625	725.488 28.5625	–	–	20400 4580000	0.33	2.03	3.03	1520 342000	865 195000	5300 1190000	1.76
744.538 29.3125	1035.050 40.7500	727.075 28.6250	812.800 32.0000	–	–	24800 5580000	0.33	2.03	3.03	1850 416000	1050 237000	6440 1448000	1.76
749.300 29.5000	990.600 39.0000	577.000 22.7166	650.000 25.5906	–	–	20800 4680000	0.33	2.03	3.03	1550 349000	883 198000	5400 1214000	1.76
775.843 30.5450	1040.000 40.9449	650.000 25.5906	800.000 31.4960	110.000 4.3307	899.950 35.4311	25400 5720000	0.31	2.20	3.28	1890 426000	989 222000	6600 1482000	1.91
777.875 30.6250	1079.500 42.5000	755.650 29.7500	844.550 33.2500	–	–	26800 6020000	0.33	2.03	3.03	1990 448000	1130 255000	6940 1560000	1.76
828.675 32.6250	1143.000 45.0000	733.425 28.8750	825.500 32.5000	–	–	28000 6280000	0.33	2.03	3.03	2080 467000	1180 266000	7240 1628000	1.76
838.200 33.0000	1143.000 45.0000	619.125 24.3750	711.200 28.2500	–	–	23000 5160000	0.33	2.03	3.03	1710 384000	972 218000	5940 1336000	1.76
863.600 34.0000	1130.300 44.5000	644.525 25.3750	717.551 28.2500	–	–	22800 5100000	0.33	2.03	3.03	1690 380000	963 216000	5880 1324000	1.76
872.769 34.3610	1181.100 46.5000	628.650 24.7500	714.375 28.1250	–	–	25000 5600000	0.33	2.03	3.03	1860 418000	1060 238000	6460 1454000	1.76
895.350 35.2500	1212.850 47.7500	784.225 30.8750	873.125 34.3750	–	–	31000 6960000	0.33	2.03	3.03	2310 518000	1310 295000	8020 1804000	1.76
1013.630 39.9067	1308.100 51.5000	730.250 28.7500	920.750 36.2500	225.425 8.8750	1193.800 47.0000	33200 7480000	0.33	2.03	3.03	2480 557000	1410 317000	8620 1938000	1.76

⁽¹⁾The bore diameter (d) corresponds to the large bore.

Bearing Part No.			Design Type	Cage Type ⁽²⁾	Mounting Dimensions					Weight
Single Cone (Smallest)	Single Cup	Double Cup			Max. Shaft Radius	Cone Backing Diameter	Max. Housing Radius	Cup Backing Diameter	Axial Cage Clearance	
					R	d _b	r	D _b	A _b	
				mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	
M276430T	M276410	–	TQITS	P	6.4 0.25	558.0 21.97	1.5 0.06	725.6 28.57	18.5 0.73	928 2046
LM280030T	–	LM280010D	TQIT	P	6.4 0.25	621.0 24.45	1.5 0.06	759.0 29.88	18.5 0.73	578 1275
LM281031T	LM281010	–	TQITS	P	6.4 0.25	657.0 25.87	1.5 0.06	824.5 32.46	21.5 0.85	1033 2277
M281631T	M281610	–	TQITS	P	9.7 0.38	687.0 27.05	1.5 0.06	889.5 35.02	7.1 0.28	1675 3692
M283430T	–	M283410D	TQIT	P	9.7 0.38	762.0 30.00	1.5 0.06	985.2 38.79	29.3 1.15	2328 5132
LM283630T	LM283610	–	TQITS	P	6.4 0.25	762.0 30.00	3.3 0.13	952.4 37.50	7.2 0.28	1511 3332
NP236431	NP250466	–	TQITSE	P	10.0 0.39	789.0 31.06	4.0 0.16	994.0 39.13	6.7 0.26	1969 4340
M284230T	–	M284210D	TQIT	P	9.7 0.38	795.0 31.30	3.2 0.13	1028.3 40.48	33.0 1.30	2622 5781
LM28546TD	–	LM285510D	TQIT	P	4.8 0.19	861.0 33.90	3.3 0.13	1089.2 42.88	32.2 1.27	2664 5874
NP317801	LM285710	–	TQITS	P	9.7 0.38	858.0 33.78	9.7 0.38	1089.2 42.88	33.3 1.31	2259 4981
LM286230T	LM286210	–	TQITS	P	9.7 0.38	885.0 34.84	12.7 0.50	1090.4 42.93	28.2 1.11	2123 4680
LM286433T	LM286410	–	TQITS	P	9.7 0.38	894.0 35.20	12.7 0.50	1130.5 44.51	32.4 1.28	2430 5357
LM286733T	LM286710	–	TQITS	P	10.0 0.39	912.0 35.91	3.3 0.13	1163.6 45.81	7.4 0.29	3209 7075
LM288130T	LM288110	–	TQITSE	P	12.7 0.50	1030.0 40.55	3.3 0.13	1259.9 49.60	6.8 0.27	3186 7025

⁽²⁾Cage type: S – Stamped steel, P – Pin type.