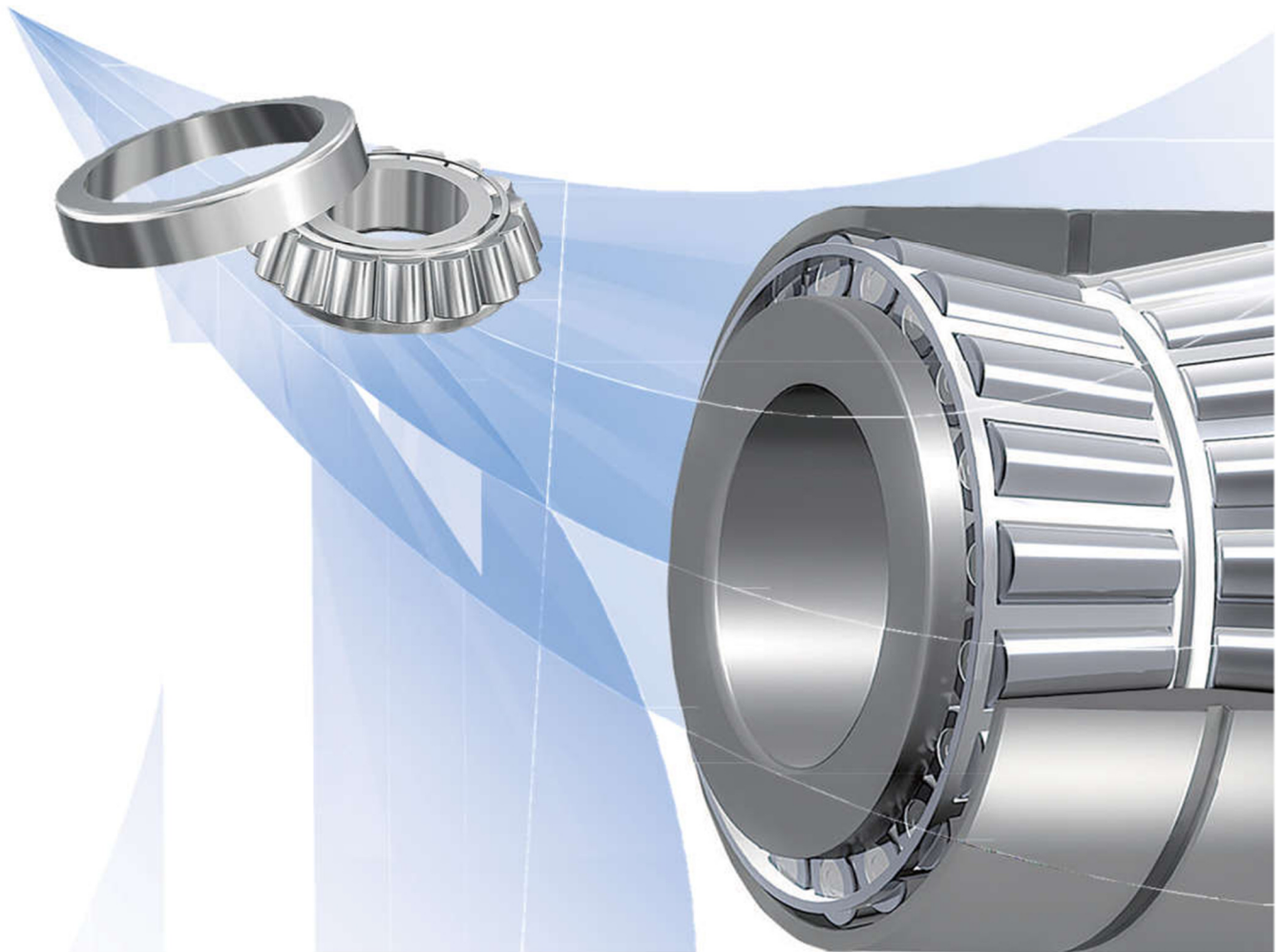


# Metric Series High-Temp TAPERED ROLLER BEARINGS



**Version:** 10/2023

*Every care has been taken to ensure the correctness of the information contained in this document but no liability can be accepted for any errors or omissions. Subject to change without prior notice.*

## High Temperature Tapered Roller Bearings



GMW offers High-temp Tapered Roller Bearings . They are mounted in pairs in order to obtain a bearing unit sealed at both sides. The maximum operating ranager temperature from 150°C up to 200°C

All bearings also coated with Manganese Phosphate on the roller, cage rings and possibly the entire product surface bearings have the following advantages. They are mounted in pairs in order to obtain a bearing unit sealed at both sides two bearings are used together facing one another, or two or more bearings are matched and used.

### Suffix T150

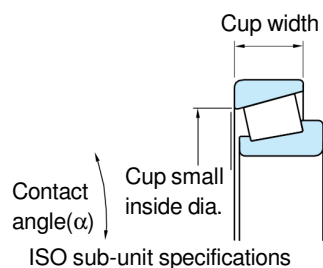
GMW offer T150 high temperature bearings are suitable for equipment with shaft diameters from 20mm – 100mm.

- Made from AISI 52100 steel material
- Can be applied at temperatures up to 150°C
- Manganese phosphate ( $Mn_3(PO_4)_2$ ) surface coating (according to EN ISO 9717) ensures enhanced corrosion protection.
- The roller retaining cage and the roller after being coated still ensure increased performance, especially at high temperatures.
- T150 heat-resistant bearings are suitable for equipment with shaft diameters from 20mm – 100mm. They are mounted in pairs in order to obtain a bearing unit sealed at both sides

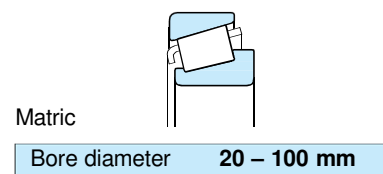
### Suffix T200

GMW offer T200 high temperature bearings are suitable for equipment with shaft diameters from 20mm – 100mm.

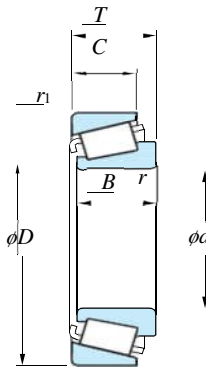
- Made from AISI 52100 steel material
- Increased radial clearance (multiple of CN)
- Can be applied at temperatures up to 200°C
- Manganese phosphate ( $Mn_3(PO_4)_2$ ) surface coating (according to EN ISO 9717) ensures enhanced corrosion protection.
- The roller retaining cage and the roller after being coated still ensure increased performance, especially at high temperatures.
- T200 heat-resistant bearings are suitable for equipment with shaft diameters from 20mm – 100mm. They are mounted in pairs in order to obtain a bearing unit sealed at both sides



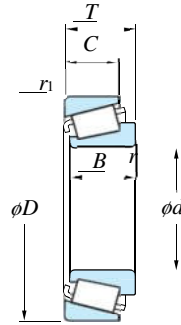
Tapered roller bearings



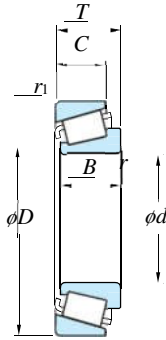
**(Note)** : Bearings whose cup width, cup small inside diameter and contact angle are determined in accordance with ISO 355 specifications are identified by the supplementary code "J" as a suffix. Cone assemblies and the cups of such bearings are interchangeable with those of bearings produced abroad if the bearing numbers are the same.



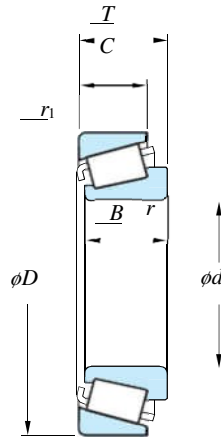
d	Boundary dimensions (mm)						Basic load ratings (kN)		Limiting speeds (min <sup>-1</sup> )		Bearing No.	(Refer.) Mass (kg)
	D	T	B	C	r min.	r <sub>1</sub> min.	C <sub>r</sub>	C <sub>0r</sub>	Grease lub	Oil lub		
20	42	15	15	12	0.6	0.6	27.3	31.5	9 700	13 000	<b>32004JR</b>	0.054
	47	15.25	14	12	1	1	27.0	27.2	8 700	12 000	<b>30204JR</b>	0.081
	47	19.25	18	15	1	1	33.1	34.7	8 900	12 000	<b>32204JR</b>	0.104
	52	22.25	21	18	1.5	1.5	45.1	46.7	8 400	11 000	<b>32304JR</b>	0.170
25	47	15	15	11.5	0.6	0.6	30.2	37.7	8 300	11 000	<b>32005JR</b>	0.125
	47	17	17	14	0.6	0.6	33.5	42.3	8 300	11 000	<b>33005JR</b>	0.127
	52	16.25	15	13	1	1	31.5	33.7	7 800	10 000	<b>30205JR</b>	0.159
	52	19.25	18	16	1	1	39.8	44.8	7 900	11 000	<b>32205JR</b>	0.179
	52	22	22	18	1	1	48.9	58.5	7 900	10 000	<b>33205JR</b>	0.244
30	62	18.25	17	13	1.5	1.5	39.8	42.5	5 700	8 000	<b>30305DJR</b>	0.108
	62	18.25	17	15	1.5	1.5	48.2	46.9	6 800	9 000	<b>30305JR</b>	0.131
	62	25.25	24	20	1.5	1.5	61.2	64.1	6 900	9 100	<b>32305JR</b>	0.156
	55	17	17	13	1	1	38.2	48.0	7 000	9 400	<b>32006JR</b>	0.225
	55	20	20	16	1	1	43.2	55.2	7 000	9 400	<b>33006JR</b>	0.269
	62	17.25	16	14	1	1	41.5	44.8	6 500	8 700	<b>30206JR</b>	0.275
	62	21.25	20	17	1	1	50.7	57.9	6 500	8 700	<b>32206JR</b>	0.273
	62	25	25	19.5	1	1	66.4	79.4	6 500	8 700	<b>33206JR</b>	0.386
	72	20.75	19	14	1.5	1.5	50.9	54.9	4 900	6 800	<b>30306DJR</b>	0.150
	72	20.75	19	16	1.5	1.5	59.6	60.1	5 800	7 700	<b>30306JR</b>	0.203
72	28.75	27	23	1.5	1.5	82.2	91.6	5 900	7 900	<b>32306JR</b>	0.236	



d	Boundary dimensions (mm)						Basic load ratings (kN)		Limiting speeds (min <sup>-1</sup> )		Bearing No.	(Refer.) Mass (kg)
	D	T	B	C	r <sub>min.</sub>	r <sub>1 min.</sub>	C <sub>r</sub>	C <sub>0r</sub>	Grease Lub	Oil lub		
35	62	18	18	14	1	1	45.5	59.4	6 200	8 200	32007JR	0.231
	62	21	21	17	1	1	51.3	68.0	6 200	8 200	33007JR	0.263
	72	18.25	17	15	1.5	1.5	55.1	60.9	5 600	7 400	30207JR	0.344
	72	24.25	23	19	1.5	1.5	69.6	82.4	5 600	7 500	32207JR	0.453
	72	28	28	22	1.5	1.5	87.6	107	5 700	7 500	33207JR	0.551
	80	22.75	21	15	2	1.5	63.1	69.1	4 300	6 000	30307DJR	0.536
	80	32.75	31	25	2	1.5	101	114	5 300	7 000	32307JR	0.776
40	68	19	19	14.5	1	1	53.5	71.4	5 600	7 400	32008JR	0.282
	68	22	22	18	1	1	60.4	84.6	5 500	7 400	33008JR	0.326
	75	26	26	20.5	1.5	1.5	82.2	108	5 200	6 900	33108JR	0.508
	80	19.75	18	16	1.5	1.5	62.9	69.2	5 000	6 700	30208JR	0.434
	80	24.75	23	19	1.5	1.5	77.7	90.8	5 000	6 600	32208JR	0.554
	80	32	32	25	1.5	1.5	108	139	5 000	6 700	33208JR	0.758
	90	25.25	23	17	2	1.5	80.5	90.2	3 800	5 300	30308DJR	0.757
	90	25.25	23	20	2	1.5	90.6	101	4 500	6 100	30308JR	0.757
	90	35.25	33	27	2	1.5	116	139	4 600	6 200	32308JR	1.06
45	75	20	20	15.5	1	1	62.8	86.5	5 000	6 600	32009JR	0.354
	75	24	24	19	1	1	69.6	101	5 000	6 700	33009JR	0.416
	80	26	26	20.5	1.5	1.5	87.5	120	4 800	6 400	33109JR	0.563
	85	20.75	19	16	1.5	1.5	67.2	77.4	4 600	6 100	30209JR	0.502
	85	32	32	25	1.5	1.5	112	149	4 600	6 200	33209JR	0.818
	100	27.25	25	18	2	1.5	95.1	107	3 400	4 700	30309DJR	0.973
	100	27.25	25	22	2	1.5	113	128	4 100	5 400	30309JR	1.01
50	100	38.25	36	30	2	1.5	146	180	4 100	5 500	32309JR	1.43
	72	15	15	12	0.6	0.6	35.9	56.3	4 900	6 600	32910JR	0.195
	80	20	20	15.5	1	1	65.7	94.5	4 600	6 100	32010JR	0.389
	80	24	24	19	1	1	73.0	110	4 600	6 100	33010JR	0.451
	85	26	26	20	1.5	1.5	89.4	127	4 400	5 900	33110JR	0.594
	90	21.75	20	17	1.5	1.5	76.5	91.7	4 300	5 700	30210JR	0.566
	90	24.75	23	19	1.5	1.5	85.0	105	4 300	5 700	32210JR	0.643
	90	32	32	24.5	1.5	1.5	119	167	4 300	5 700	33210JR	0.887
	110	29.25	27	19	2.5	2	115	133	3 100	4 300	30310DJR	1.25
55	110	29.25	27	23	2.5	2	137	152	3 700	4 900	30310JR	1.32
	110	42.25	40	33	2.5	2	176	220	3 700	5 000	32310JR	1.89
	80	17	17	14	1	1	44.6	73.3	4 400	5 900	32911JR	0.285
	90	23	23	17.5	1.5	1.5	84.6	121	4 100	5 500	32011JR	0.569
	90	27	27	21	1.5	1.5	96.5	149	4 100	5 400	33011JR	0.672
	95	30	30	23	1.5	1.5	116	161	4 000	5 300	33111JR	0.868
	100	22.75	21	18	2	1.5	94.6	113	3 900	5 200	30211JR	0.732
	100	35	35	27	2	1.5	142	189	3 900	5 200	33211JR	1.18
120	31.5	29	21	2.5	2	129	148	2 900	4 000	30311DJR	1.59	



d	Boundary dimensions (mm)						Basic load ratings (kN)		Limiting speeds (min <sup>-1</sup> )		Bearing No.	(Refer.) Mass (kg)
	D	T	B	C	r min.	r <sub>1</sub> min.	C <sub>r</sub>	C <sub>0r</sub>	Grease Lub	Oil lub		
55	120	31.5	29	25	2.5	2	149	170	3 300	4 500	<b>30311JR</b>	1.65
	120	45.5	43	35	2.5	2	200	250	3 400	4 500	<b>32311JR</b>	2.38
60	85	17	17	14	1	1	46.2	78.2	4 100	5 500	<b>32912JR</b>	0.306
	95	23	23	17.5	1.5	1.5	86.1	127	3 900	5 200	<b>32012JR</b>	0.621
	95	27	27	21	1.5	1.5	101	162	3 900	5 200	<b>33012JR</b>	0.719
	100	30	30	23	1.5	1.5	118	170	3 700	5 000	<b>33112JR</b>	0.923
	110	23.75	22	19	2	1.5	106	127	3 500	4 700	<b>30212JR</b>	0.945
	110	29.75	28	24	2	1.5	132	167	3 500	4 700	<b>32212JR</b>	1.19
	110	38	38	29	2	1.5	174	239	3 600	4 700	<b>33212JR</b>	1.57
	130	33.5	31	22	3	2.5	153	179	2 600	3 700	<b>30312DJR</b>	2.01
	130	33.5	31	26	3	2.5	173	201	3 100	4 100	<b>30312JR</b>	2.08
	130	48.5	46	37	3	2.5	244	315	3 100	4 200	<b>32312JR</b>	2.99
65	90	17	17	14	1	1	47.4	83.1	3 900	5 200	<b>32913JR</b>	0.327
	100	23	23	17.5	1.5	1.5	90.0	137	3 600	4 800	<b>32013JR</b>	0.664
	100	27	27	21	1.5	1.5	103	169	3 600	4 800	<b>33013JR</b>	0.762
	110	34	34	26.5	1.5	1.5	152	223	3 400	4 600	<b>33113JR</b>	1.33
	120	24.75	23	20	2	1.5	128	156	3 200	4 300	<b>30213JR</b>	1.18
	120	32.75	31	27	2	1.5	157	203	3 200	4 300	<b>32213JR</b>	1.58
	120	41	41	32	2	1.5	200	277	3 200	4 300	<b>33213JR</b>	2.02
	140	36	33	23	3	2.5	176	209	2 400	3 400	<b>30313DJR</b>	2.44
	140	36	33	28	3	2.5	204	239	2 800	3 800	<b>30313JR</b>	2.56
	140	51	48	39	3	2.5	276	357	2 900	3 900	<b>32313JR</b>	3.64
70	100	20	20	16	1	1	71.0	115	3 500	4 700	<b>32914JR</b>	0.496
	110	25	25	19	1.5	1.5	108	163	3 300	4 400	<b>32014JR</b>	0.884
	110	31	31	25.5	1.5	1.5	134	208	3 300	4 400	<b>33014JR</b>	1.09
	120	37	37	29	2	1.5	181	266	3 100	4 200	<b>33114JR</b>	1.71
	125	26.25	24	21	2	1.5	138	173	3 100	4 100	<b>30214JR</b>	1.32
	125	33.25	31	27	2	1.5	169	225	3 100	4 100	<b>32214JR</b>	1.71
	125	41	41	32	2	1.5	206	294	3 100	4 100	<b>33214JR</b>	2.16
	150	38	35	25	3	2.5	197	235	2 300	3 200	<b>30314DJR</b>	2.97
	150	38	35	30	3	2.5	230	273	2 600	3 500	<b>30314JR</b>	3.08
	150	54	51	42	3	2.5	317	414	2 700	3 600	<b>32314JR</b>	4.50



d	Boundary dimensions (mm)						Basic load ratings (kN)		Limiting speeds (min <sup>-1</sup> )		Bearing No.	(Refer.) Mass (kg)
	D	T	B	C	r min.	r <sub>1</sub> min.	C <sub>r</sub>	C <sub>0r</sub>	Grease Lub	Oil lub		
75	105	20	20	16	1	1	73.6	123	3 300	4 400	<b>32915JR</b>	0.526
	115	25	25	19	1.5	1.5	110	169	3 100	4 200	<b>32015JR</b>	0.930
	115	31	31	25.5	1.5	1.5	141	225	3 200	4 200	<b>33015JR</b>	1.16
	125	37	37	29	2	1.5	186	280	3 000	4 000	<b>33115JR</b>	1.84
	130	27.25	25	22	2	1.5	142	181	2 900	3 900	<b>30215JR</b>	1.42
	130	33.25	31	27	2	1.5	174	234	2 900	3 900	<b>32215JR</b>	1.77
	130	41	41	31	2	1.5	212	310	2 900	3 900	<b>33215JR</b>	2.26
	160	40	37	26	3	2.5	222	266	2 100	2 900	<b>30315DR</b>	3.48
	160	40	37	31	3	2.5	260	311	2 500	3 300	<b>30315JR</b>	3.65
	160	58	55	45	3	2.5	363	481	2 500	3 300	<b>32315JR</b>	5.41
80	110	20	20	16	1	1	76.1	131	3 100	4 200	<b>32916JR</b>	0.556
	125	29	29	22	1.5	1.5	147	225	2 900	3 900	<b>32016JR</b>	1.32
	125	36	36	29.5	1.5	1.5	173	288	2 900	3 900	<b>33016JR</b>	1.63
	130	37	37	29	2	1.5	191	294	2 800	3 800	<b>33116JR</b>	1.93
	140	28.25	26	22	2.5	2	161	202	2 700	3 600	<b>30216JR</b>	1.72
	140	35.25	33	28	2.5	2	203	271	2 700	3 600	<b>32216JR</b>	2.17
	140	46	46	35	2.5	2	250	371	2 700	3 600	<b>33216JR</b>	2.99
	170	42.5	39	27	3	2.5	236	282	2 000	2 800	<b>30316DJR</b>	4.12
	170	42.5	39	33	3	2.5	294	355	2 300	3 100	<b>30316JR</b>	4.46
	170	61.5	58	48	3	2.5	383	503	2 300	3 100	<b>32316JR</b>	6.31
85	120	23	23	18	1.5	1.5	97.1	165	2 900	3 900	<b>32917JR</b>	0.794
	130	29	29	22	1.5	1.5	150	234	2 800	3 700	<b>32017JR</b>	1.38
	130	36	36	29.5	1.5	1.5	177	300	2 800	3 700	<b>33017JR</b>	1.72
	140	41	41	32	2.5	2	224	346	2 600	3 500	<b>33117JR</b>	2.43
	150	30.5	28	24	2.5	2	182	231	2 500	3 400	<b>30217JR</b>	2.17
	150	38.5	36	30	2.5	2	232	315	2 500	3 400	<b>32217JR</b>	2.80
	150	49	49	37	2.5	2	294	439	2 500	3 400	<b>33217JR</b>	3.63
	180	44.5	41	28	4	3	263	317	1 900	2 600	<b>30317DJR</b>	4.81
	180	44.5	41	34	4	3	316	384	2 200	2 900	<b>30317JR</b>	5.15
	180	63.5	60	49	4	3	439	587	2 200	3 000	<b>32317JR</b>	7.42
90	125	23	23	18	1.5	1.5	101	175	2 800	3 700	<b>32918JR</b>	0.834
	140	32	32	24	2	1.5	178	276	2 600	3 500	<b>32018JR</b>	1.80
	140	39	39	32.5	2	1.5	221	367	2 600	3 400	<b>33018JR</b>	2.22
	150	45	45	35	2.5	2	258	413	2 500	3 300	<b>33118JR</b>	3.13
	160	32.5	30	26	2.5	2	204	261	2 400	3 200	<b>30218JR</b>	2.65
	160	42.5	40	34	2.5	2	263	362	2 400	3 200	<b>32218JR</b>	3.47
	190	46.5	43	30	4	3	282	336	1 700	2 400	<b>30318DR</b>	5.60
	190	46.5	43	36	4	3	345	420	2 100	2 700	<b>30318JR</b>	6.04
	190	67.5	64	53	4	3	461	614	2 100	2 800	<b>32318JR</b>	8.61

95	145	32	32	24	2	1.5	182	287	2 500	3 300	<b>32019JR</b>	1.88	
	145	39	39	32.5	2	1.5	226	382	2 500	3 300	<b>33019JR</b>	2.31	
	160	49	49	38	2.5	2	304	473	2 300	3 100	<b>33119JR</b>	3.89	
	170	34.5	32	27	3	2.5	231	299	2 200	3 000	<b>30219JR</b>	3.20	
	170	45.5	43	37	3	2.5	311	439	2 200	3 000	<b>32219JR</b>	4.34	
	170	58	58	44	3	2.5	374	582	2 200	2 900	<b>33219JR</b>	5.66	
	200	49.5	45	32	4	3	319	391	1 700	2 300	<b>30319DJR</b>	6.68	
	200	49.5	45	38	4	3	372	455	2 000	2 600	<b>30319JR</b>	6.96	
	100	140	25	25	20	1.5	1.5	126	217	2 400	3 300	<b>32920JR</b>	1.19
		150	32	32	24	2	1.5	185	298	2 400	3 200	<b>32020JR</b>	1.95
150		39	39	32.5	2	1.5	231	397	2 400	3 200	<b>33020JR</b>	2.40	
165		52	52	40	2.5	2	325	523	2 200	3 000	<b>33120JR</b>	4.29	
180		37	34	29	3	2.5	258	338	2 100	2 800	<b>30220JR</b>	3.83	
180		49	46	39	3	2.5	347	495	2 100	2 800	<b>32220JR</b>	5.21	
180		63	63	48	3	2.5	431	680	1 100	2 800	<b>33220JR</b>	6.92	
215		51.5	47	34	4	3	318	374	1 500	2 100	<b>30320D</b>	8.02	
215		51.5	47	39	4	3	344	400	1 800	2 400	<b>30320</b>	7.76	
215		51.5	47	39	4	3	422	521	1 800	2 400	<b>30320JR</b>	8.49	
215		56.5	51	35	4	3	373	459	1 500	2 200	<b>31320JR</b>	8.72	
215		77.5	73	60	4	3	579	783	1 800	2 400	<b>32320JR</b>	13.0	



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