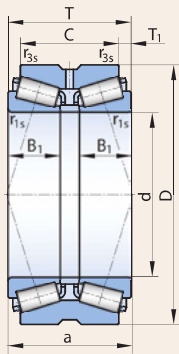


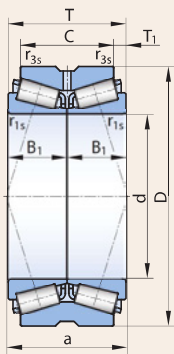


TAPERED ROLLER BEARINGS

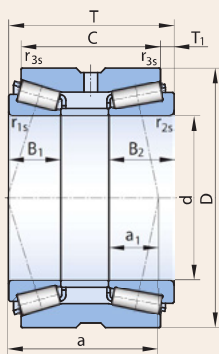
double row



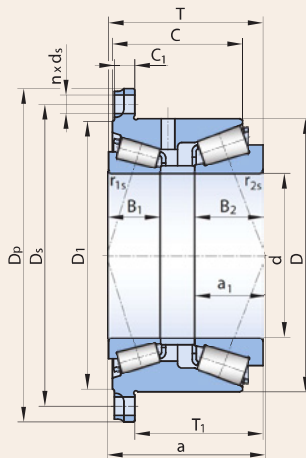
Pict. 1



Pict. 2



Pict. 3



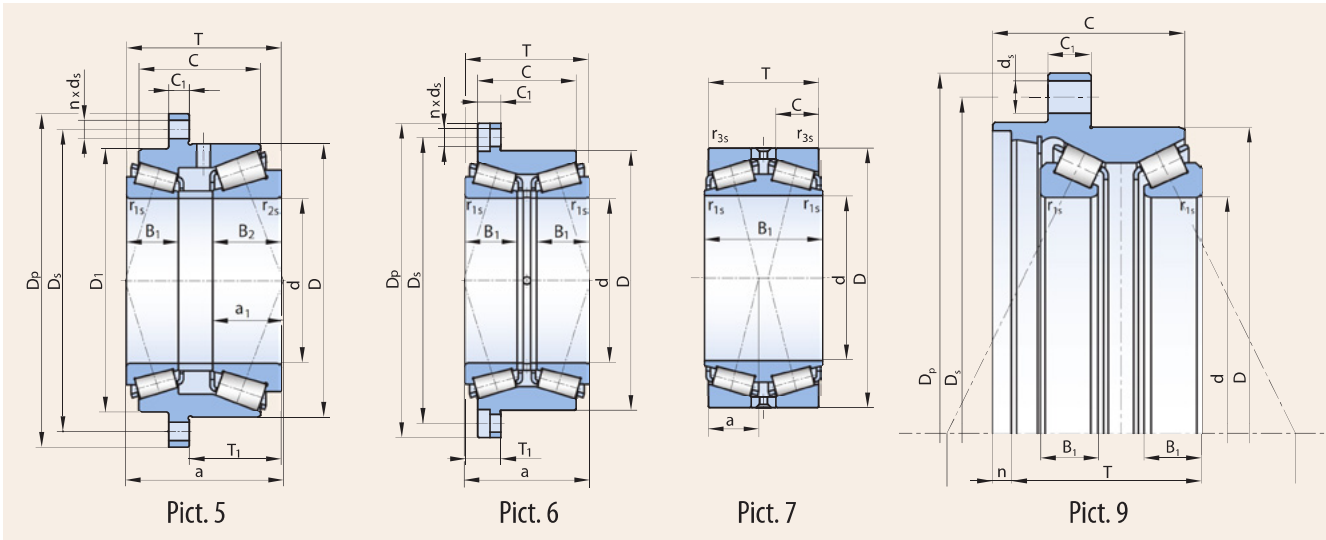
Pict. 4

Dimensions														Basic Load Ratings		Limited Speed for Lubrication		Bearing Designation	We- ight	Factors				
d	D	D ₁	D _p	T	T ₁	B ₁	B ₂	C	C ₁	r _{1s} min	r _{2s} min	r _{3s} min	a (a ₁)	C _r dyn.	C _{0r} stat.	with				e	Y ₁	Y ₂	Y ₀	
																	grease	oil						
[mm]														[kN]		[min ⁻¹]			[kg]					
120	185		230	90	26	38		72	17	2.5		0.6	92	430	850	1500	2200	PSL69-201 ¹⁾	11.1	0.46	1.5	2.2	1.5	
120	190			121	10	38	48	102		2.5	2.5	0.6	110 (36)	254/310	430/560	500	2200	PSL69-200 ¹⁾	12	0.3/0.46/	2.2/1.5/	3.3/2.2/	2.2/1.5/	
120	200	196	244	113	93.8	38	50	95.2	15	2.5	3		115.5 (52)	254/315	430/510	1500	2200	PSL510-16 ¹⁾	15	0.46/0.57/	1.5/1.2/	2.2/1.7/	1.5/1.2/	
120	200	192.5	244	113	67.2	38	50	89	15	2.5	3		115.5 (52)	254/315	430/510	1500	2200	PSL69-17-1 ¹⁾	14.5	0.46/0.57/	1.5/1.2/	2.2/1.7/	1.5/1.2/	
120	210			82	6	38		64		2.5		0.6	86	423	831	1410	2010	PSL610-314	11.73	0.46	1.47	2.19	1.44	
120	215			136	12	58		112		3		1	117	829	1453	1250	1650	PSL610-23	20.5	0.43	1.5	2.3	1.5	
127	206.4			108	12.75	54		82.5		3.5		1	100	526	1016	1100	1600	PSL610-2	12.9	0.43	1.5	2.3	1.5	
127	234.975			143.6	14.65	71.8		114.3		3.5		1.5	116	829	1494	1000	1500	PSL610-7	25	0.35	1.9	2.8	1.9	
130	200			124	11	45		102		2.5		0.6	120	559	1100	1300	1800	PSL69-202	18	0.43	1.5	2.3	1.5	
130	230			150	15	64		120		4		1.5	126	781	1487	1000	1500	PSL610-22	25.1	0.43	1.5	2.3	1.5	
160	270			150	15	66		120		3.5		1.5	120	1007	1920	900	1250	PSL610-21	32.2	0.32	2.1	3.2	2.1	
177.8	282.575			107.95	14.29	53.975		79.375		3.6		1.5	107.95	794	1408	860	1230	PSL611-309	23	0.42	1.62	2.42	1.59	
180	300			164	15	72		134		4		1.5	121	1225	2398	800	1100	PSL611-16	43.6	0.26	2.6	3.9	2.6	
196.85	255		330	79		24		69	16	2			145	328	789	850	1150	PSL610-203	12.9	0.74	0.91	1.36	0.89	
196.85	255	259	300	79		24		80	18	2			145	328	789	850	1150	PSL610-301	11.6	0.74	0.91	1.36	0.89	
200	310			154.5		70		53		3	2.5	1		1290	2720	760	1090	PSL611-320	39.6	0.43	1.57	2.34	1.53	
220	340			100	12.5	45		75		3		2	103.8	788	1440	680	970	PSL611-308	29.5	0.3	2.26	3.36	2.21	
228.6	355.65			146.8	17.85	73.4		111.1		6		1.5	128	1131	2372	650	900	PSL611-4	48.4	0.32	2.1	3.2	2.1	
242	406			97				75		6	6	0.6	82	2310	4660	570	820	PSL612-359	48.4	0.37			0.89	
253.975	347.662			101.6	15.88	50.8		69.85		2.5		1	101.6	852	1810	620	890	PSL611-311	24.6	0.33	2.03	3.02	1.98	
254	431.774			173.8	22.65	86.9		128.5		6		1.5	157	1607	3125	550	750	PSL612-4	94.3	0.35	1.9	2.9	1.9	
260	360			134	22.65	86.9		109		3		1	141	1158	2712	600	800	PSL611-23-1	37.1	0.37	1.8	2.7	1.8	
266.7	325.438			68.075		33.775		60.8		1.5		0.8	107	390	1100	600	800	PSL611-200-1	11.3	0.36	1.84	2.74	1.8	
276.225	352.425			85.024		34.925		59.624		3.6	2	1	150.4	577	1413	500	700	PSL611-204	18.1	0.52	1.3	1.93	1.27	
304.8	393.7			107.95	12.7	53.975		82.55		3.6		1.5	107.95	982	2542	520	740	PSL611-310	30.9	0.36	1.88	2.8	1.84	
305.07	500			200		200		73		6.4		5	154	2415	5030	440	630	PSL612-315	151	0.78	0.86	1.29	0.85	
333.375	469.9			190.5		90.488		152.4		6.4		2	180.3	2686	5655	440	620	PSL612-332	98	0.33	2.03	3.02	1.98	
340	460			160	16	72		128		4		1.5	160	1595	4118	450	600	PSL612-38	72.5	0.3	2.1	3.1	2.1	
340	520			190	22.5	87.5		145		6		2.5	212.7	2055	4265	360	460	PSL612-207	109	0.44	1.5	2.3	1.5	
355.6	444.5			136.525	12.7	68.263		111.125		2.5		1	148.8	1249	3730	440	630	PSL612-316	43	0.31	2.2	3.27	2.15	

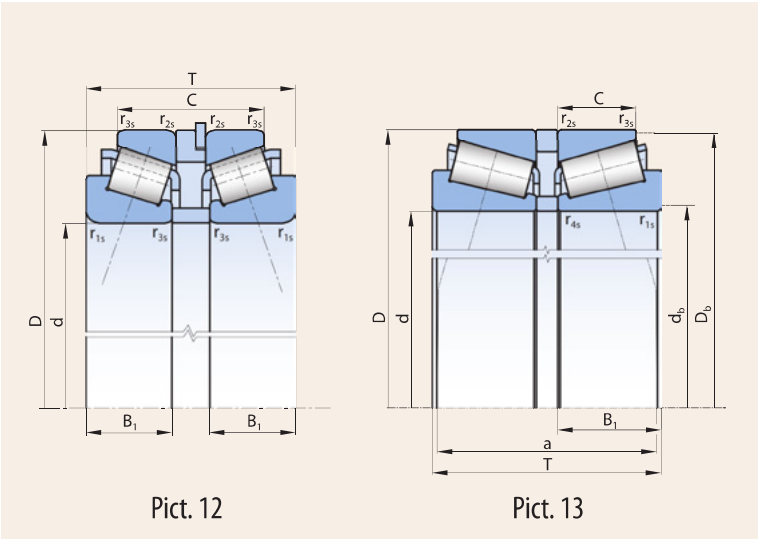
1) Use of these bearings should be checked with PSL in advance

2) Fixing holes are not spaced uniformly

3) Contact PSL for information on bearing design



Pict.	Abutment and Fillet Dimensions							
	d	D _s	n	d _s	d _b min	D _b min	a _b min	r _a max
	[mm]							
6	120	209	6 2)	13	130			2
3	120				130	173	10	2
4	120	221	8	13	130			2
5	120	221	8	13	130			2
3)	120				130	173	9	2
1	120				135	205	11	2.5
2	127				152	197	15	3
2	127				156	218	15	3
1	130				140	192	11	2
1	130				156	218	15	3
1	160				190	255	15	3
2	177.8				188	271	10.3	3
1	180				210	283	18	3
9	196.85	305	20	M16-8H	207	252	11	2
9	196.85	280	16	13.5	207	252	11	2
13	200				212	299	16	2
1	220				234	318	15.2	2.5
2	228.6				265	332	20	5
13	242				270	383	22	5
2	253.975				264	335	13.1	2
2	254				300	397	24	5
1	260				287	348	15	2.5
3)	266.7							1.5
12	276.225				305			3
2	304.8				315	384	13.3	3
7	305.07					408		5
1	333.375				346	452	18	5
1	340				376	445	18	3
1	340				376	492	18	5
2	355.6				370	430	11.5	2



Double row tapered roller bearings are used in heavy industrial engineering applications and in the automobile industry. They are manufactured with an axial clearance selected to suit operating conditions.

Radial equivalent load:

- dynamic:

$P_r = F_r + Y_1 F_a$
 $P_r = 0,67 F_r + Y_2 F_a$

if $F_a / F_r \leq e$
if $F_a / F_r > e$

[kN]
[kN]

- static:

$P_{Or} = F_r + Y_0 F_a$

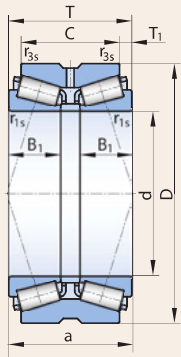
[kN]

Cages
The tapered roller bearings have pressed steel cages.

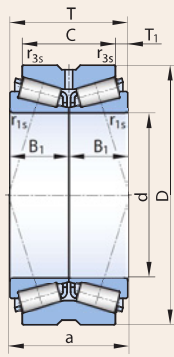


TAPERED ROLLER BEARINGS

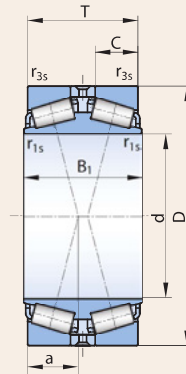
double row



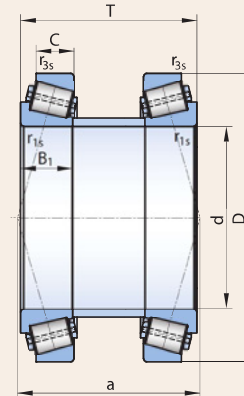
Pict. 1



Pict. 2



Pict. 7



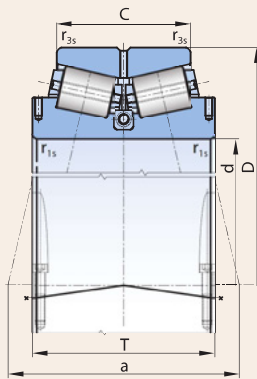
Pict. 8

[illegible]

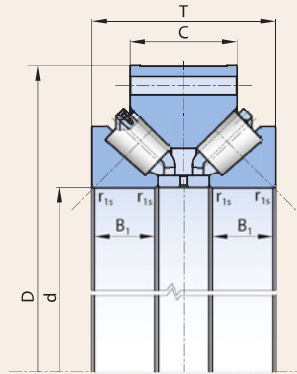
1) Use of these bearings should be checked with PSL in advance

- 1) Use of these bearings should be checked
- 2) Fixing holes are not spaced uniformly

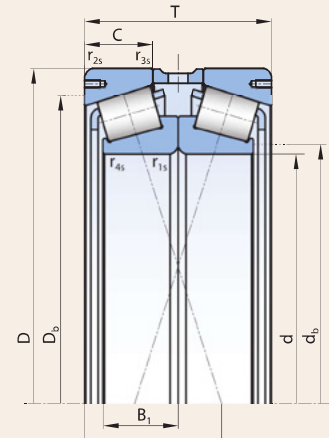
3) Contact PSL for information on bearing design



Pict. 10



Pict. 11



Pict. 14

[illegible]