

BPW turntables

With double-row ball race

BPW turntables – proven over more than 60 years of use!



The number one system

BPW turntables are distinguished from conventional single-row systems by their high-quality double row, which guarantees optimum distribution of the axial and radial forces that are produced.

This system has been proven over years of successful operation and the advantages in its design shine through in daily use in truck trailers, semi-trailers, heavy-duty transporters and special vehicles.

BPW turntables are used in particular in applications where the vehicle design places extremely high demands on the construction and materials.

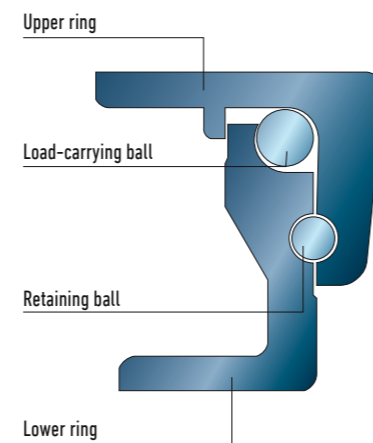
Optimum transmission of forces

BPW turntables have a row of load-carrying balls and a row of retaining balls between the upper and lower ring.

- ▶ The axial loads acting on the turntable are transferred vertically by the large load-carrying balls.
- ▶ The horizontal tension and compression forces are transferred by the smaller retaining balls.
- ▶ The moment loads from the braking and centrifugal force are absorbed by the load-carrying and retaining balls acting together.
- ▶ The retaining ball row links the upper and lower rings.

Absolute reliability

- ▶ The design principle ensures the greatest possible reliability as the axial and radial forces that are exerted are transferred separately to the two rows of balls.



- ▶ Outstanding quality is achieved with a special selection of materials and specific manufacturing processes. The rim profiles are cold-formed from high-strength steel, butt-welded and calibrated. This means that the turntables can also be used under extreme conditions.

Long life means cost efficiency

Thanks to their long life expectancy, BPW turntables guarantee minimal down time.

- ▶ The ball track is secured under load by the load-carrying balls.
- ▶ The interior has a labyrinth seal for long-term protection against dust and dirt.
- ▶ All of the advantages together guarantee reliability, smooth running and an outstanding life expectancy.

Construction and installation instructions

- ▶ The permissible axial load (see table on page 70) is the static axial load that acts on the turntable. It applies only in the compression direction for vehicles with a speed of up to 105 km/h. For vehicles with a speed of up to 30 km/h, the axial load is permitted to be 25% higher. The permissible axial load is included in the details imprinted on the type plate.
- ▶ The supporting structure for the lower and upper ring must be even, level and torsionally rigid, as there will otherwise be deformation during use, which will put operational safety at risk. Unevenness on the supporting surfaces must not exceed 1 mm. Greater irregularities must be evened out. The supporting surface is divided into at least four surface sections of the same size, spread evenly around the circumference and must support at least 50% of the turntable flanges.
- ▶ After having been bolted in place, the turntable flanges must be additionally secured against movement at the top and bottom with at least four weld-on plates (shear blocks) so that the shear forces that occur are not absorbed solely by the connecting bolts.
- ▶ We recommend the use of drilled turntables. If drilling work is performed at a later time, drilling chips and coolant must not enter the ball tracks.

- ▶ Prior to commissioning, turntables must be filled with BPW ECO-Li 91 special longlife grease (lithium complex grease) via the grease nipple. When new, they are only lightly greased and so only have 'emergency lubrication'.

- ▶ BPW turntables are not suitable for applications involving multiple rotations of over 360°.

- ▶ BPW turntables are not designed for eccentric loads.

- ▶ Special applications must be agreed with us.

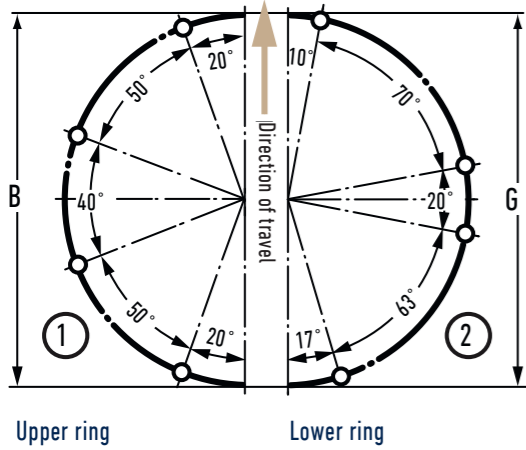
Maintenance

- ▶ Grease the turntable bearing via the grease nipple with BPW ECO-Li 91 special longlife grease (lithium complex grease) every 25,000 kilometres, or at least once every three months (every two to three weeks in extreme operating conditions). Do not mix the grease with other types of grease (calcium or sodium soap grease).
- ▶ Check all bolt connections regularly and retighten if necessary.
- ▶ No welding work may be performed on BPW turntables; i.e. no parts may be welded on. During welding work on the vehicle, the earth cable must be attached so that no power can flow through the turntable, as the balls and running surfaces may otherwise be damaged.

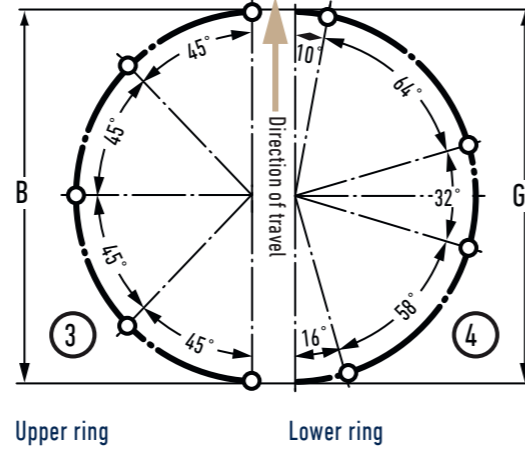
BPW turntables

Standard product range

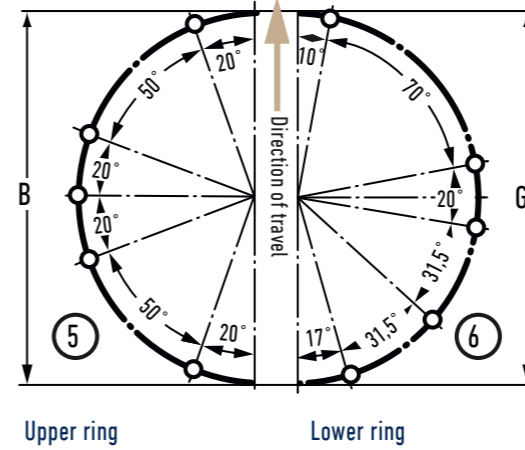
8-hole
Only DK 80/8



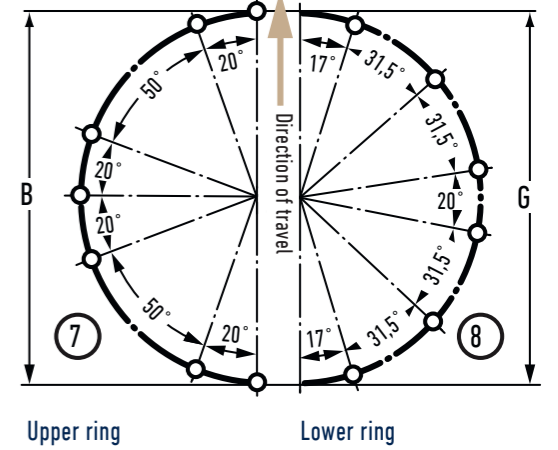
8-hole



10-hole
Only DK 80/16 A



12-hole



BPW TURNTABLE – drilled ^{1) 2)}		BPW TURNTABLE – undrilled		UPPER RING								
TYPE	BPW NO.	TYPE	BPW NO.	PERMISSIBLE AXIAL LOAD ⁴⁾ in t ⁴⁾	PERMISSIBLE TRAILER GROSS WEIGHT in t	OUTER Ø A mm	BOLT CIRCLE Ø B mm	DRILLING PATTERN Ø	INNER Ø C mm	BORE HOLE Ø D mm	FLANGE THICKNESS E mm	
		DK 80/5	02.6415.01.00	5	25	664	(636)			519.5	(14)	9
DK 80/8/0808	02.6415.10.00	DK 80/8/0808	02.6415.11.00	8	40	894	866	①		749.5	16	9
DK 80/10/1108	02.6415.13.00	DK 80/10/1108	02.6415.14.00	10	50	1,108	1,074	③		959.5	16	9
DK 80/16/0810 A ³⁾	02.6415.17.00 ³⁾	DK 80/16/0810 A ³⁾	02.6415.18.00 ³⁾	16	50	894	866	⑤		749.5	16	9
DK 90/10/1208	02.6415.66.00			10	50	1,208	1,174	③		1,042.0	18	10
DK 90/10/1212	02.6415.70.00	DK 90/10/1.200	02.6415.71.00	10	50	1,208	1,174	⑦		1,042.0	18	10
DK 90/12/1008	02.6415.24.00	DK 90/12/1008	02.6415.23.00	12	50	1,000	966	③		834.0	18	10
DK 90/13/1108	02.6415.20.00	DK 90/13/1108	02.6415.22.00	13	55	1,108	1,074	③		942.0	18	10
DK 90/13/1208	02.6415.67.00			13	55	1,208	1,174	③		1,042.0	18	10
DK 90/13/1212	02.6415.72.00	DK 90/13/1.200	02.6415.73.00	13	55	1,208	1,174	⑦		1,042.0	18	10
DK 90/14/1008	02.6415.34.00	DK 90/14/1008	02.6415.33.00	14	55	1,000	966	③		834.0	18	10
DK 90/16/1108	02.6415.30.00	DK 16/1108	02.6415.31.00	16	60	1,108	1,074	③		942.0	18	10
DK 90/16/1212	02.6415.74.00	DK 90/16/1.200	02.6415.75.00	16	60	1,208	1,174	⑦		1,042.0	18	10
DK 90/20/1108	02.6415.41.00	DK 90/20/1108	02.6415.40.00	20	60	1,108	1,074	③		942.0	18	10
DK 90/20/1212	02.6415.76.00	DK 90/20/1.200	02.6415.77.00	20	60	1,208	1,174	⑦		1,042.0	18	10
DK 90/26/1212	02.6415.78.00	DK 90/26/1.200	02.6415.79.00	26	70	1,208	1,174	⑦		1,042.0	18	10
DK 90/30/1212 SP	02.6415.80.00	DK 90/30/1.200 SP	02.6415.81.00	30	70	1,208	1,174	⑦		1,042.0	18	10

¹⁾ Special versions on request. ²⁾ For drill patterns, see figures. ³⁾ Use only for semi-trailer coupling. ⁴⁾ Permissible axial load = static axial load over the steered axle, which acts on the turntable. Subject to change without notice.

LOWER RING						BOLTS per ring			
OUTER Ø F mm	BOLT CIRCLE Ø G mm	DRILLING PATTERN Ø	INNER Ø H mm	BORE HOLE Ø D mm	FLANGE THICKNESS E mm	QUANTITY	THREAD Ø min.	OVERALL HEIGHT J min.	WEIGHT kg
650	(622)	②	554	(14)	9	8	(M 12)	80	38
880	852	④	784	16	9	8	M 14	80	49
1,095	1,060	⑥	994	16	9	8	M 14	80	64
880	852	④	784	16	9	10	M 14	80	49
1,195	1,160	⑧	1,079	18	10	8	M 16	90	92
1,195	1,160	④	1,079	18	10	12	M 16	90	92
987	952	④	871	18	10	8	M 16	90	72
1,095	1,060	④	979	18	10	8	M 16	90	82
1,195	1,160	⑧	1,079	18	10	8	M 16	90	92
1,195	1,160	④	1,079	18	10	12	M 16	90	92
987	952	④	871	18	10	8	M 16	90	72
1,095	1,060	⑧	979	18	10	8	M 16	90	82
1,195	1,160	④	1,079	18	10	12	M 16	90	95
1,095	1,060	⑧	979	18	10	8	M 16	90	82
1,195	1,160	⑧	1,079	18	10	12	M 16	90	95
1,195	1,160	⑧	1,079	18	10	12	M 16	90	96
1,195	1,160	⑧	1,079	18	10	12	M 16	90	96

