

6 Spring pivot bolt bearings

General

Spring pivot bolt bearing

BPW spring bolt mountings connect the trailing arms to the supports / frame.

The maintenance-free steel / rubber / steel bushes guarantee that the axles are guided securely and with a stable track in any circumstances.

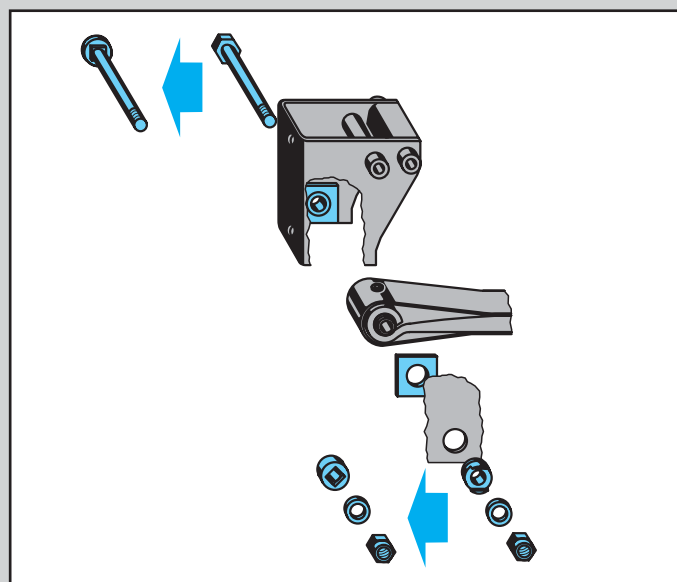
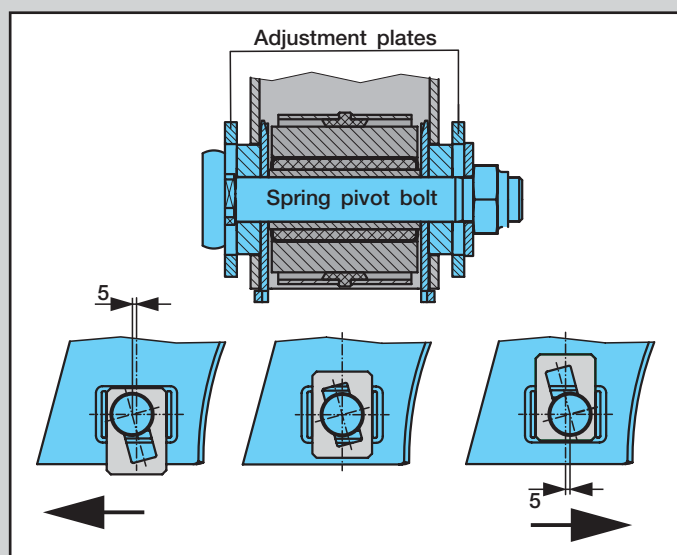
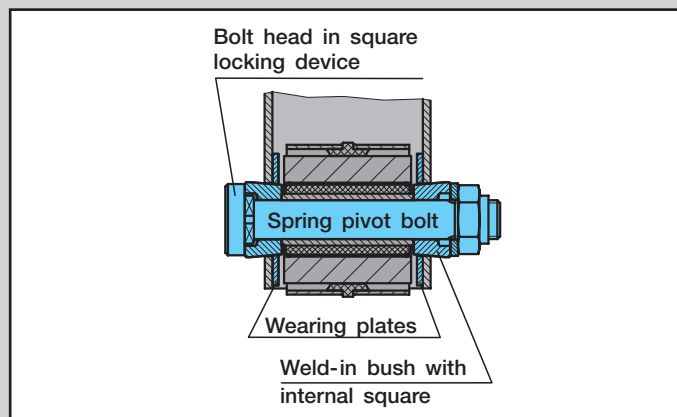
In axle lift devices, the mounting of the lift arm is integrated into the spring bolt mounting, thereby ensuring a safe and long-life function.

Rapid axle alignment is possible using BPW hanger brackets with integrated track adjustment. Production tolerances on the vehicle can be counteracted or tracking corrected without the need to unfasten the spring U-bolts (axle tracking).

Spring bolt with square anti-rotation lock

Since 1995, BPW has been using spring bolts and weld-in bushes with square anti-rotation lock on rigid steel supports.

In case of wear on bushes with a slot for the hexagon head of the spring bolt that are welded into older supports, change over to the new technology with square anti-rotation lock.

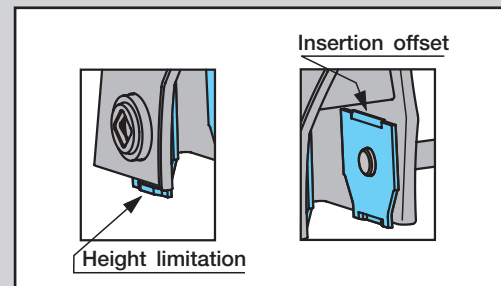
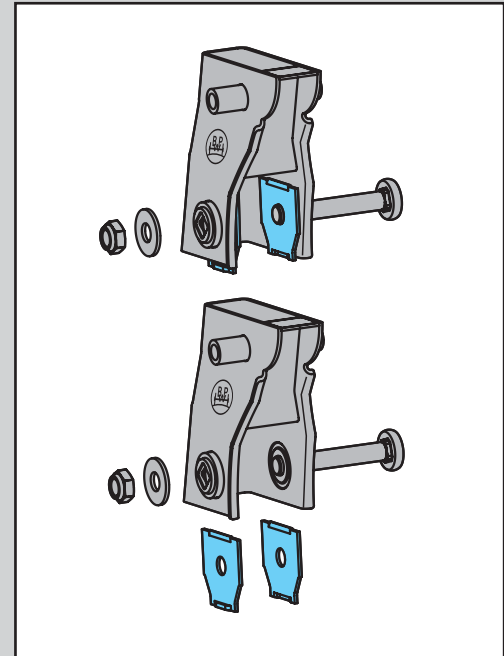


New spring pivot bolt bearing from week 18/2004 onwards

From week **18/2004 onwards**, the functional principle of the loose wear plates (registered utility model DE-GM 201 04 753 U1) familiar in Airlight II hanger brackets will also be carried across to the rigid air suspension hanger brackets for 100 mm wide trailing arms.

Loose wear plates offer the following advantages:

- Simplified mounting, because the wear plates are not inserted in the bracket until the trailing arm has been positioned in the bracket.
This means there is significantly more installation space available at the start of the installation procedure.
Preinstalled air suspension modules can therefore be installed in the vehicle frame much more easily thanks to the brackets which are already welded on.
- A practical design of the wear plates thanks to the insertion offset and height limitation ensures that the installation functions smoothly.
- Mixed installation is technically possible (brackets with loose wear plates or with welded wear plates).



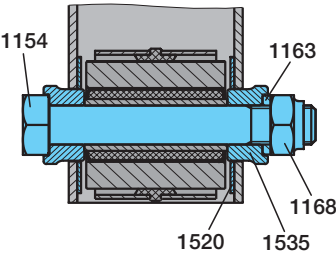
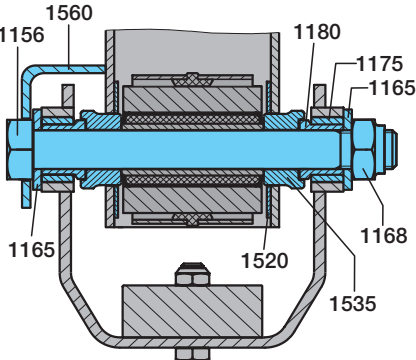
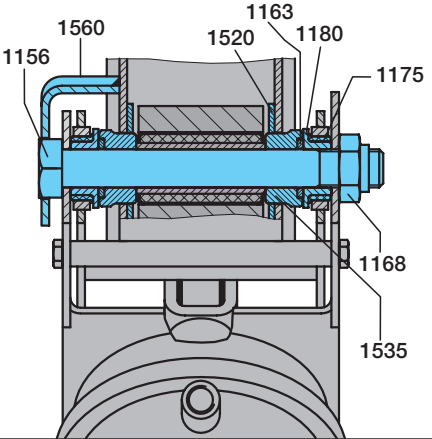
6.1 Spring pivot bolt bearings, unadjustable

Overview

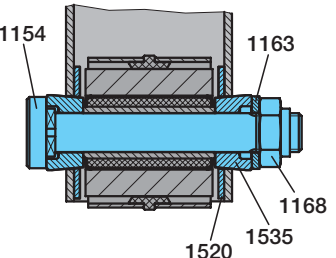
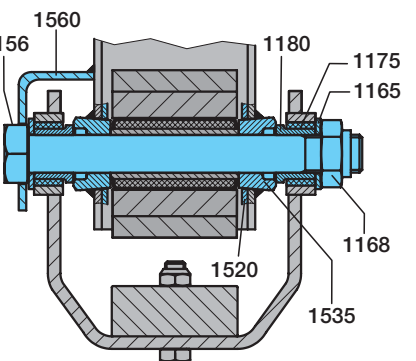
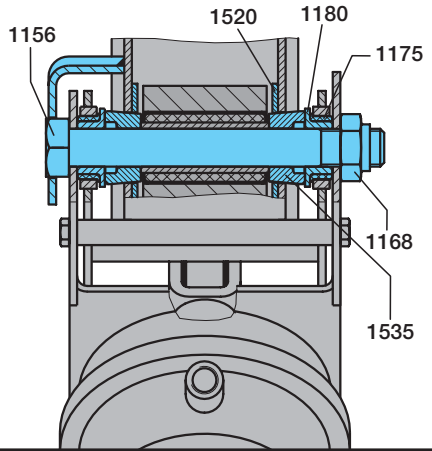
Spring pivot bolt bearings, unadjustable, steel hanger brackets / integrated supports

Trailing arms 100 mm wide

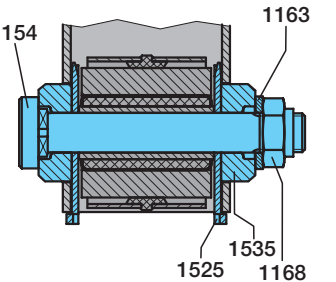
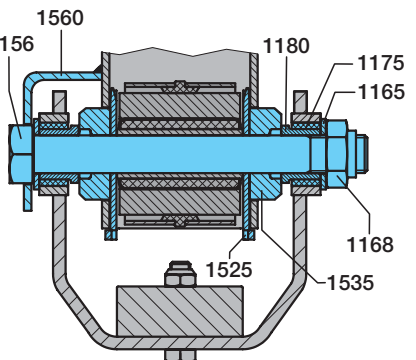
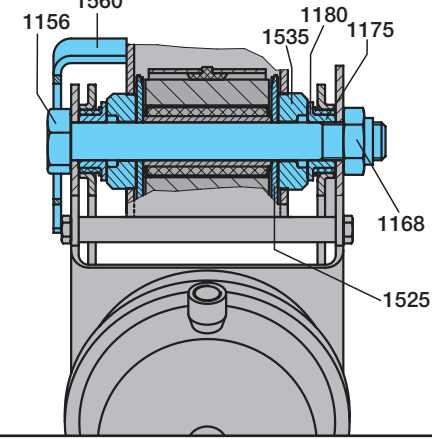
Torsion protection with slotted bush

Standard	Sidewise mounted axle lift	Two-side axle lift
		

Torsion protection with square internal lock bush, welded on wear plates

Standard	Sidewise mounted axle lift	Two-side axle lift
		

Torsion protection with square internal lock bush, loose wear plates

Standard	Sidewise mounted axle lift	Two-side axle lift
		

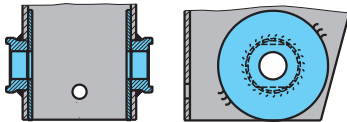
Spring pivot bolt bearings, unadjustable, steel hanger brackets / integrated supports											
Trailing arms 100 mm wide				Torsion protection with slotted bush			Torsion protection with square internal lock bush				
Item	Designation	Dimension	BPW Code no.	Standard	Sidewise mounted axle lift device	Two-side axle lift	Standard	Sidewise mounted axle lift device	Two-side axle lift	Loose wear plates	Loose wear plates, sidewise mounted axle lift device
	Further details - Page			55	57	61	55	57	61	55	59
1150	Repair kit spring pivot bolt (incl. steel / rubber / steel bush) (Item 1005, 1154, 1163, 1168, 1520, 1535)		09.801.06.28.0				●				
	Repair kit spring pivot bolt (incl. rubber / steel bush) (Item 1005, 1154, 1163, 1168, 1520, 1535)		09.801.06.29.0				●				
1152	Spring bolt assembly (Item 1154, 1163, 1168)		05.857.00.03.0	●							
	(Item 1154, 1163, 1168)		05.857.00.12.0				●				
	(Item 1154, 1163, 1168, 1525)		05.857.00.24.0							●	
1153	Spring bolt assembly (Item 1156, 1165, 1168)		05.857.00.07.0		●						
	(Item 1156, 1165, 1168, 1175, 1180, 1560)		05.857.00.13.0					●			
1154	Screw (Spring bolt)	M 30 x 190	03.340.15.27.0	●							
		M 30 x 200	03.341.05.03.0				●			●	
1156	Screw (Spring bolt)	M 30 x 265	03.340.15.37.0		●			●			●
		M 30 x 255	03.340.15.39.0			●			●		●
1163	Washer	Ø 31 / 46 x 6	03.320.31.27.0	●		●					●
		Ø 30 / 57 x 6	03.320.32.38.0				●			●	
1165	Washer	Ø 31 / 62 x 5	03.320.34.51.0		●						●
		A 31	02.5401.31.01					●			
1168	Lock nut	M 30 / SW 46	03.260.15.01.0	●	●	●	●	●	●	●	●
1175	Bush (Polyamid)	Ø 41 / 50 x 23	03.113.94.10.0		●			●			●
		Ø 42/50/54 x 17.5	03.113.04.11.0			●			●		●
1180	Bush	Ø 30/40/46 x 25/31	03.113.01.29.0		●			●			●
		Ø 30/42/62 x 22	03.113.01.37.0			●			●		●
	Round wearing plate										
1520	Washer	Ø 30 / 121 x 5	03.320.36.08.0	●	●	●					
	Square wearing plate										
1520	Plate	Ø 56 / □ 105 x 3	03.281.15.03.0	●	●	●	●	●	●		
		Ø 56 / □ 101/140x4.5	03.281.35.16.0	●	●	●	●	●	●		
1525	Shaped plate		03.164.35.01.0							●	●
1535	Bush		03.113.02.06.0 03.113.02.09.0	no longer available							
		Ø 30/51/56 x 29	03.113.01.34.0				●	●	●		
		Ø 30.5/55/73.6 x 24	03.113.01.46.0							●	●
1560	Shaped plate (welded on torsion protection)		03.164.35.07.0		●	●		●	●		●
1560	Shaped part (screwed on torsion protection)		03.001.14.88.0		●	●		●	●		●
Spring pivot bolt bearings for alloy hanger brackets see page 76 - 81.											
Spring pivot bolt bearings for stainless steel hanger brackets see page 82 - 87.											

6.1.1 Spring pivot bolt bearings, unadjustable

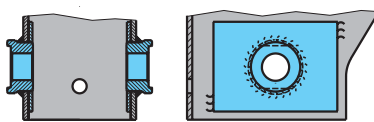
Spring pivot bolt bearings, unadjustable

Steel hanger bracket / integrated support / frames, trailing arms 100 mm wide

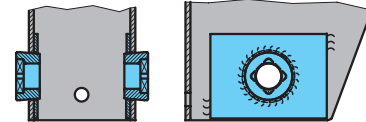
Torsion protection with slotted bush, round wearing plate



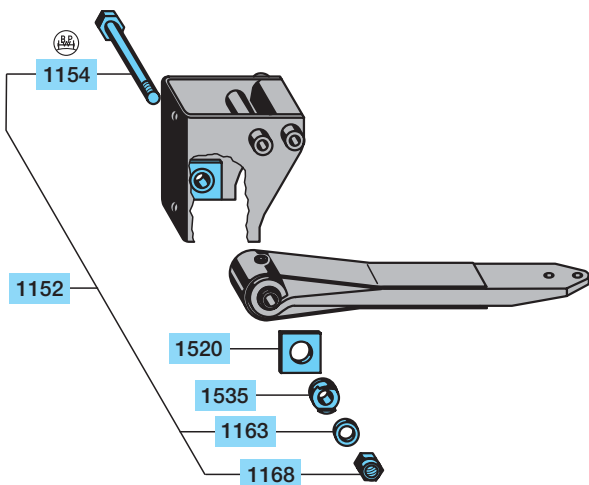
Torsion protection with slotted bush, square wearing plate, pivot bush



Torsion protection with square internal lock bush, pivot bush

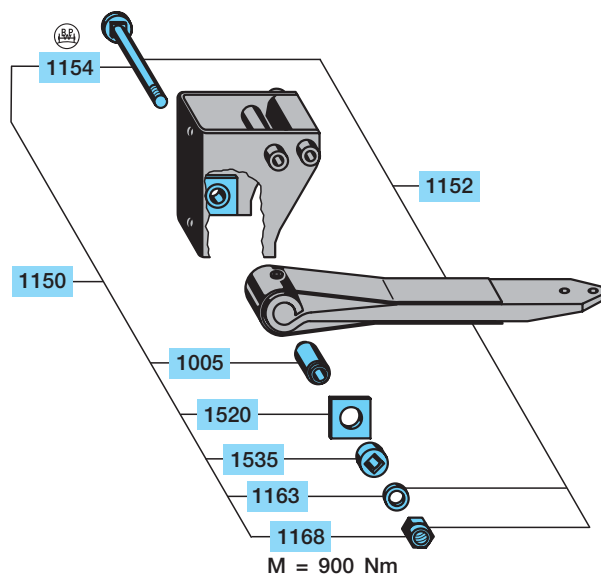


Torsion protection with slotted bush, welded on wear plates (Item 1520)

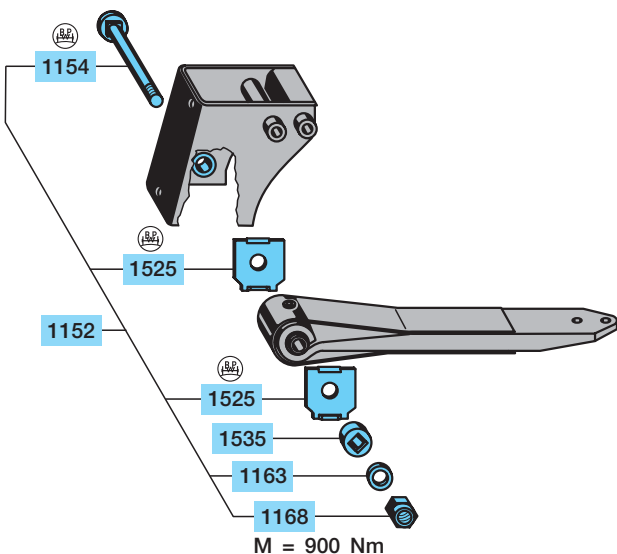


Weld-in bushes (Item 1535) no longer available.
Conversion to torsion protection with square internal lock bush.

Torsion protection with square internal lock bush, welded on wear plates (Item 1520)



Torsion protection with square internal lock bush, loose wear plates (shaped parts item 1525)



Tightening torques

Spring pivot bolt bearing:

Steel hanger bracket / frame:

until 07 / 2001 M 30 M = 750 (700 - 825) Nm

from 08 / 2001 M 30 M = 900 (840 - 990) Nm

Integrated support:

until 10 / 1998 M 30 M = 1025 - 1210 Nm

from 10 / 1998 M 30 M = 900 (840 - 990) Nm

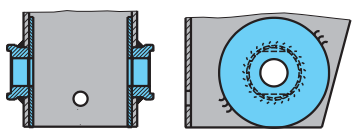
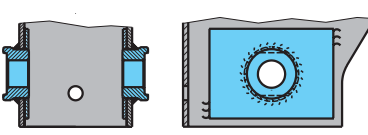
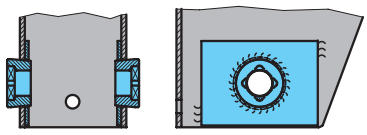
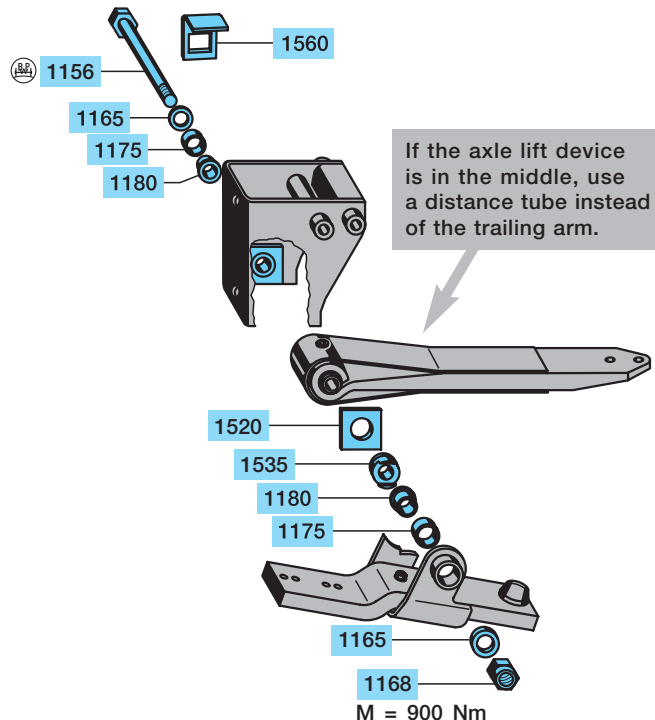
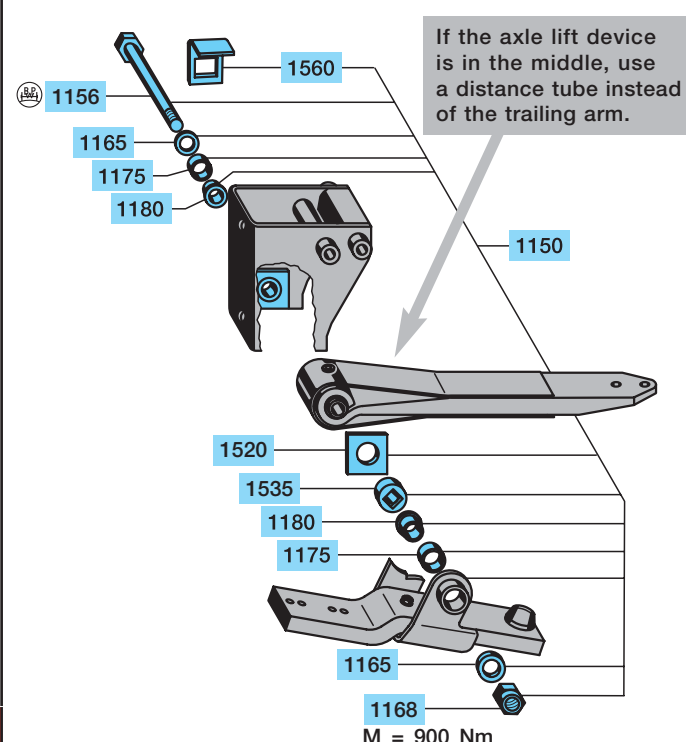
Spring pivot bolt bearings, unadjustable 6.1.1

Spring pivot bolt bearings, unadjustable

Steel hanger bracket / integrated support / frames, trailing arms 100 mm wide

			Torsion protection with slotted bush, welded on wear plates	Torsion protection with square internal lock bush, welded on wear plates
			Weld-in bushes (Item 1535) no longer available. Conversion to torsion protection with square internal lock bush.	
Item	Designation	Remark	BPW Code no. Dimension	
1150	Repair kit spring bolt (Item 1005, 1154 - 1168, 1520, 1535)		-	09.801.06.28.0 (incl. steel / rubber / steel bush)
			-	09.801.06.29.0 (incl. rubber / steel bush)
1152	Spring bolt assembly (Item 1154 - 1168)		05.857.00.03.0	05.857.00.12.0
1154	Screw (Spring bolt)		03.340.15.27.0 M 30 x 190	03.341.05.03.0 M 30 x 200
1163	Washer		03.320.31.27.0 Ø 31 / 46 x 6	03.320.32.38.0 Ø 30 / 57 x 6
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	03.260.15.01.0 M 30 / SW 46
			Round wearing plate	
1520	Washer		03.320.36.08.0 Ø 30 / 121 x 5	
1535	Bush		03.113.02.06.0 no longer available	
			Square wearing plate, pivot bush	
1520	Plate		03.281.15.03.0 Ø 56 / □ 105 x 3	03.281.15.03.0 Ø 56 / □ 105 x 3
			03.281.35.16.0 Ø 56 / □ 101 / 140 x 4.5	03.281.35.16.0 Ø 56 / □ 101 / 140 x 4.5
1535	Bush		03.113.02.09.0 no longer available	03.113.01.34.0 Ø 30 / 51 / 56 x 29
			Torsion protection with square internal lock bush, loose wear plates (shaped parts item 1525)	
1152	Spring bolt assembly (Item 1154 - 1168, 1525)		05.857.00.24.0	
1154	Screw (Spring bolt)		03.341.05.03.0 M 30 x 200	
1163	Washer		03.320.32.38.0 Ø 30 / 57 x 6	
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	
1525	Shaped plate		03.164.35.01.0	
1535	Bush		03.113.01.46.0 Ø 30.5 / 55 / 73.6 x 24	

6.1.2 Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift

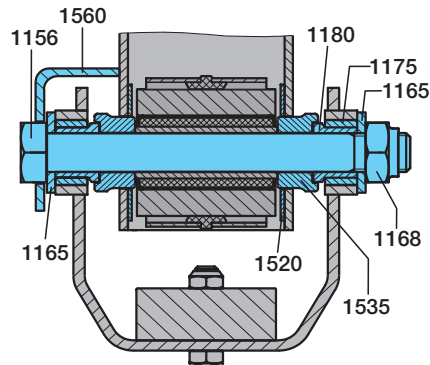
Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift		
Steel hanger bracket / integrated support / frames, trailing arms 100 mm wide		
Torsion protection with slotted bush, round wearing plate	Torsion protection with slotted bush, square wearing plate, pivot bush	Torsion protection with square internal lock bush, pivot bush
		
Torsion protection with slotted bush, sidewise mounted axle lift	Torsion protection with square internal lock bush, sidewise mounted axle lift	
 If the axle lift device is in the middle, use a distance tube instead of the trailing arm.	 If the axle lift device is in the middle, use a distance tube instead of the trailing arm.	
Weld-in bushes (Item 1535) no longer available. Conversion to torsion protection with square internal lock bush.		
Tightening torques		
Spring pivot bolt bearing:		
Steel hanger bracket / frame:		
until 07 / 2001 M 30 M = 750 (700 - 825) Nm		
from 08 / 2001 M 30 M = 900 (840 - 990) Nm		
Integrated support:		
until 10 / 1998 M 30 M = 1025 - 1210 Nm		
from 10 / 1998 M 30 M = 900 (840 - 990) Nm		

Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift 6.1.2

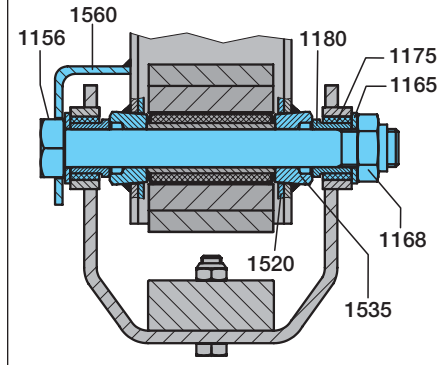
Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift

Steel hanger bracket / integrated support / frames, trailing arms 100 mm wide

Torsion protection with slotted bush



Torsion protection with square internal lock bush



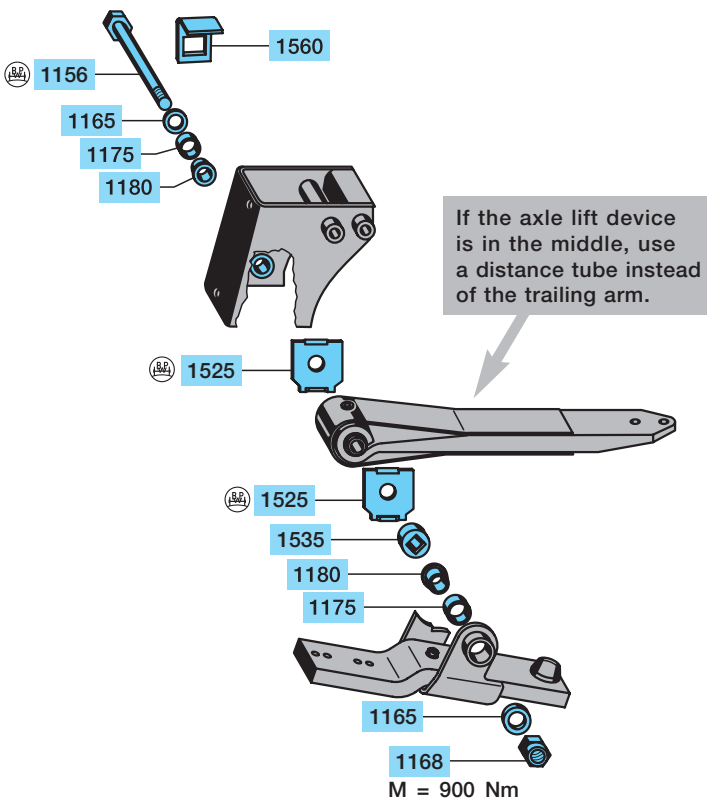
Weld-in bushes (Item 1535) no longer available. Conversion to torsion protection with square internal lock bush.

Item	Designation	Remark	BPW Code no. Dimension	
1150	Repair kit spring bolt (Item 1156 - 1180, 1520, 1535, 1560, 1615)		-	09.801.06.77.0
1153	Spring bolt assembly (Item 1156 - 1180, 1560)		05.857.00.07.0	05.857.00.13.0
1156	Screw (Spring bolt)		03.340.15.37.0 M 30 x 265	03.340.15.37.0 M 30 x 265
1165	Washer		03.320.34.51.0 Ø 31 / 62 x 5	02.5401.31.01 A 31
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	03.260.15.01.0 M 30 / SW 46
1175	Bush (Polyamid)		03.113.94.10.0 Ø 41 / 50 x 23	03.113.94.10.0 Ø 41 / 50 x 23
1180	Bush		03.113.01.29.0 Ø 30 / 40 / 46 x 31	03.113.01.29.0 Ø 30 / 40 / 46 x 25 / 31
			Round wearing plate	
1520	Washer		03.320.36.08.0 Ø 30 / 121 x 5	
1535	Bush		03.113.02.06.0 no longer available	
			Square wearing plate, pivot bush	
1520	Plate		03.281.15.03.0 Ø 56 / □ 105 x 3	03.281.15.03.0 Ø 56 / □ 105 x 3
			03.281.35.16.0 Ø 56 / □ 101 / 140 x 4.5	03.281.35.16.0 Ø 56 / □ 101 / 140 x 4.5
1535	Bush		03.113.02.09.0 no longer available	03.113.01.34.0 Ø 30 / 51 / 56 x 29
1560	Shaped plate (welded on torsion protection)		03.161.35.07.0	03.161.35.07.0

6.1.2 Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift

Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift

Steel hanger bracket / integrated support
Torsion protection with square internal lock bush, loose wear plates (shaped plates item 1525)



Tightening torques

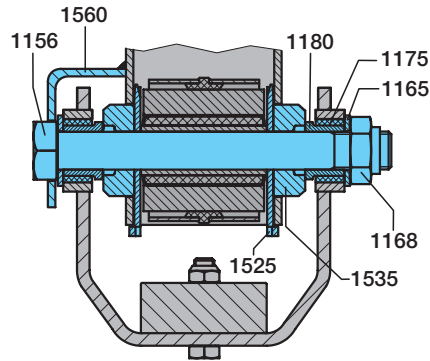
Spring pivot bolt bearing:
Steel hanger bracket / integrated support:
M 30 M = 900 (840 - 990) Nm

Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift 6.1.2

Spring pivot bolt bearings, unadjustable, sidewise mounted axle lift

Steel hanger bracket / integrated support, trailing arm 100 mm wide

Torsion protection with square internal lock bush, loose wear plates (shaped plates item 1525)



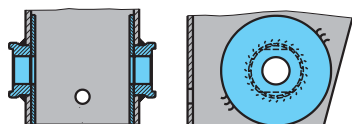
Item	Designation	Remark	BPW Code no.	Dimension
1156	Screw (Spring bolt)		03.340.15.37.0	M 30 x 265
1165	Washer		03.320.34.51.0	Ø 31 / 62 x 5
1168	Lock nut		03.260.15.01.0	M 30 / SW 46
1175	Bush (Polyamid)		03.113.94.10.0	Ø 41 / 50 x 23
1180	Bush		03.113.01.29.0	Ø 30 / 40 / 46 x 25 / 31
1525	Shaped plate		03.164.35.01.0	
1535	Bush		03.113.01.46.0	Ø 30.5 / 55 / 73.6 x 24
1560	Shaped plate	(welded on torsion protection)	03.161.35.07.0	

6.1.3 Spring pivot bolt bearings, unadjustable, two-side axle lift

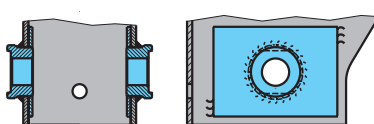
Spring pivot bolt bearings, unadjustable, two-side axle lift

Steel hanger bracket / integrated support / frame, trailing arms 100 mm wide

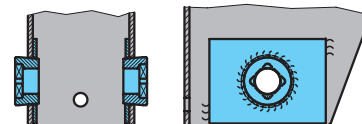
Torsion protection with slotted bush, round wearing plate



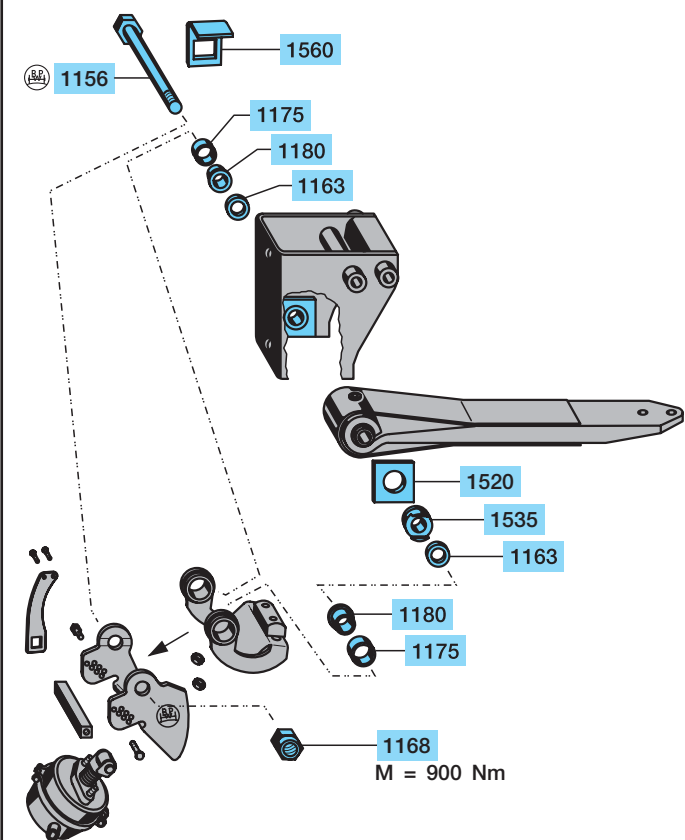
Torsion protection with slotted bush, square wearing plate, pivot bush



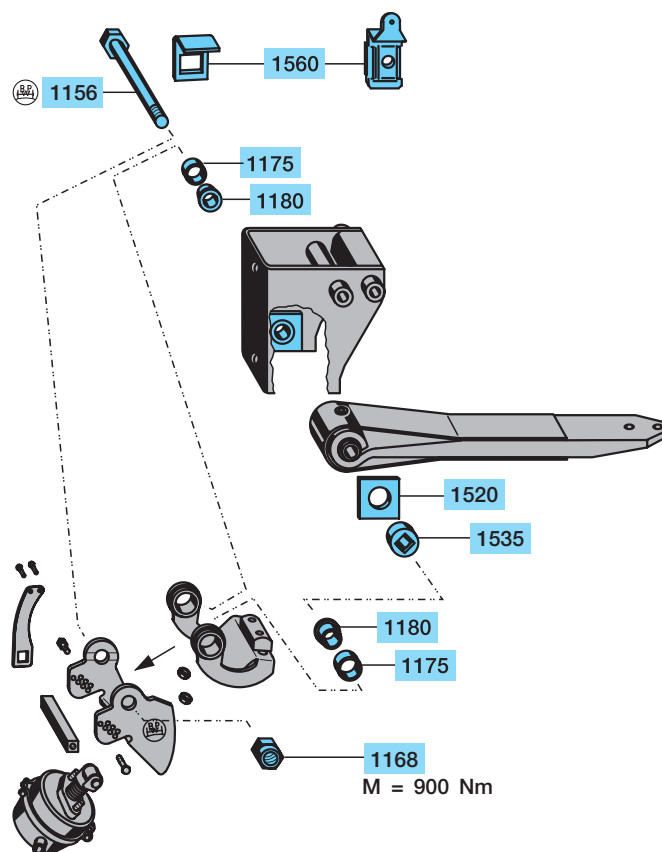
Torsion protection with square internal lock bush, pivot bush



Torsion protection with slotted bush, two-side axle lift



Torsion protection with square internal lock bush, two-side axle lift



Weld-in bushes (Item 1535) no longer available.
Conversion to torsion protection with square internal lock bush.

Tightening torques

Spring pivot bolt bearing:

Steel hanger bracket / frame:

until 07 / 2001 M 30 M = 750 (700 - 825) Nm
from 08 / 2001 M 30 M = 900 (840 - 990) Nm

Integrated support:

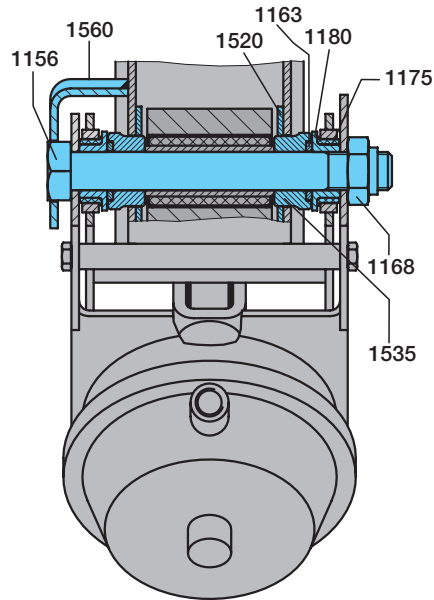
until 10 / 1998 M 30 M = 1025 - 1210 Nm
from 10 / 1998 M 30 M = 900 (840 - 990) Nm

Spring pivot bolt bearings, unadjustable, two-side axle lift 6.1.3

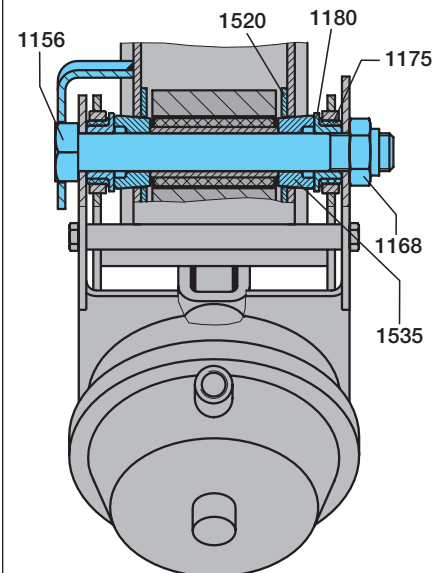
Spring pivot bolt bearings, unadjustable, two-side axle lift

Steel hanger bracket / integrated support / frame, trailing arms 100 mm wide

Torsion protection with slotted bush



Torsion protection with square internal lock bush



Weld-in bushes (Item 1535) no longer available. Conversion to torsion protection with square internal lock bush.

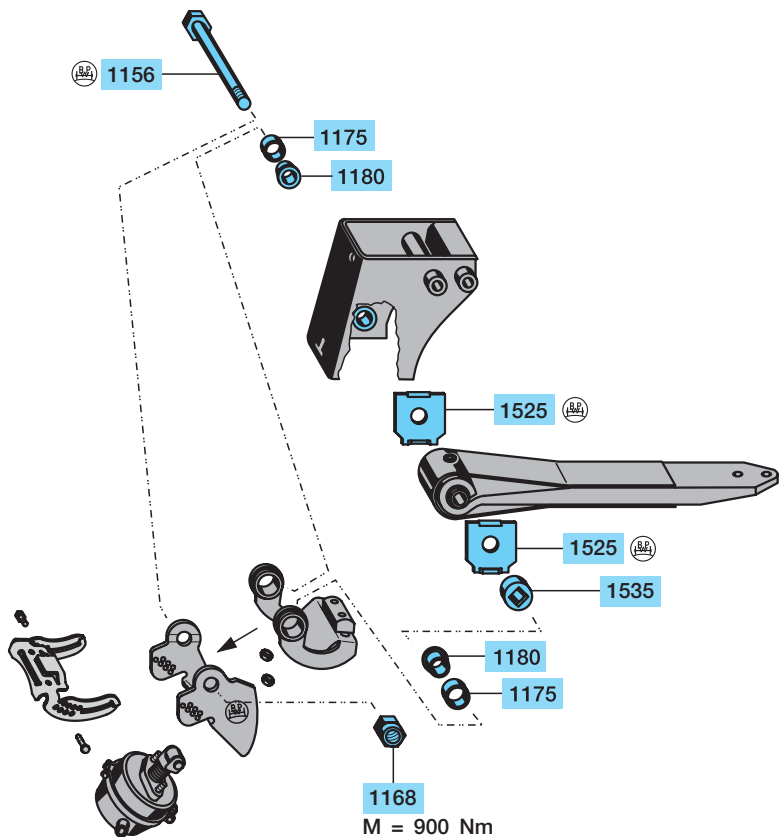
Item	Designation	Remark	BPW Code no. Dimension	
1156	Screw (Spring bolt)		03.340.15.39.0	M 30 x 255
1163	Washer		03.320.31.27.0	Ø 31 / 45.5 x 6
1168	Lock nut		03.260.15.01.0	M 30 / SW 46
1175	Bush (Polyamid)		03.113.04.11.0	Ø 42 / 50 / 54 x 17.5
1180	Bush		03.113.01.37.0	Ø 30 / 42 / 62 x 22
			Round wearing plate	
1520	Washer		03.320.36.08.0	Ø 30 / 121 x 5
1535	Bush		03.113.02.06.0	no longer available
			Square wearing plate, pivot bush	
1520	Plate		03.281.15.03.0	Ø 56 / □ 105 x 3
			03.281.35.16.0	Ø 56 / □ 101 / 140 x 4.5
1535	Bush		03.113.02.09.0	no longer available
			03.113.01.34.0	Ø 30 / 51 / 56 x 29
1560	Shaped plate (welded on torsion protection)		03.161.35.07.0	
	Shaped part (screwed on torsion protection)		-	
			03.161.35.07.0	
			03.001.14.88.0	

6.1.3 Spring pivot bolt bearings, unadjustable, two-side axle lift

Spring pivot bolt bearings, unadjustable, two-side axle lift

Steel hanger bracket / integrated support, trailing arms 100 mm wide

Torsion protection with square internal lock bush, loose wear plates (shaped plates, item 1525)



Tightening torques

Spring pivot bolt bearing:

Steel hanger bracket / integrated support:

M 30

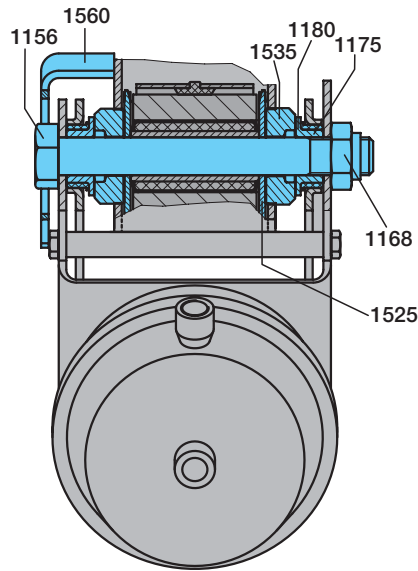
M = 900 (840 - 990) Nm

Spring pivot bolt bearings, unadjustable, two-side axle lift 6.1.3

Spring pivot bolt bearings, unadjustable, two-side axle lift

Steel hanger bracket / integrated support, trailing arms 100 mm wide

Torsion protection with square internal lock bush, loose wear plates (shaped plates, item 1525)



Item	Designation	Remark	BPW Code no.	Dimension
1156	Screw (Spring bolt)		03.340.15.39.0	M 30 x 255
1168	Lock nut		03.260.15.01.0	M 30 / SW 46
1175	Bush (Polyamid)		03.113.04.11.0	Ø 42 / 50 / 54 x 17.5
1180	Bush		03.113.01.37.0	Ø 30 / 42 / 62 x 22
1525	Shaped plate		03.164.35.01.0	
1535	Bush		03.113.01.46.0	Ø 30.5 / 55 / 73.6 x 24
1560	Shaped plate (welded on torsion protection) Shaped part (screwed on torsion protection)		03.161.35.07.0 03.001.14.88.0	

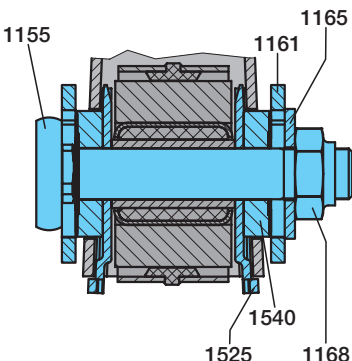
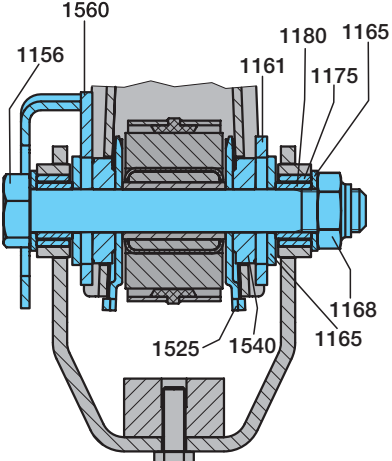
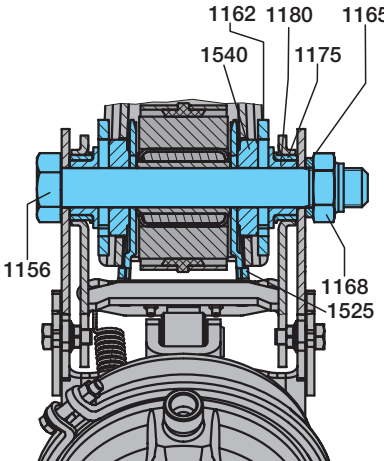
6.2 Spring pivot bolt bearings, adjustable

Overview

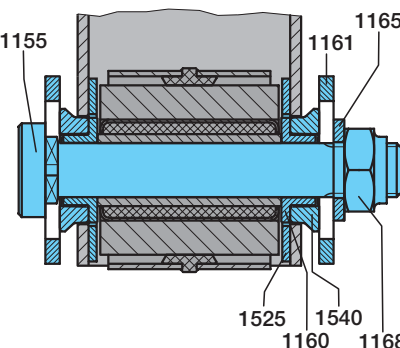
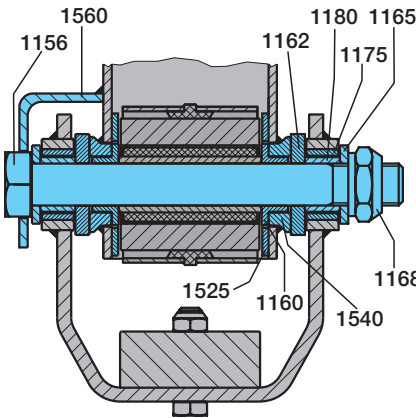
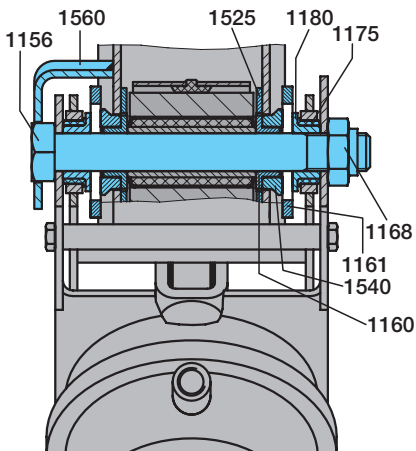
Spring pivot bolt bearings, adjustable, steel hanger brackets / integrated supports

Trailing arms 70 / 100 mm wide

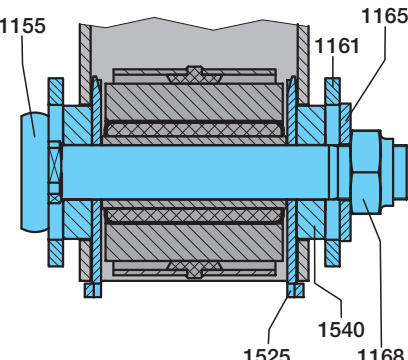
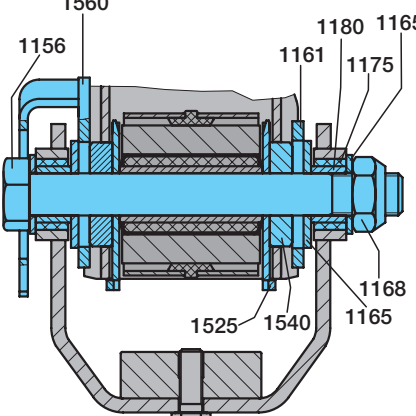
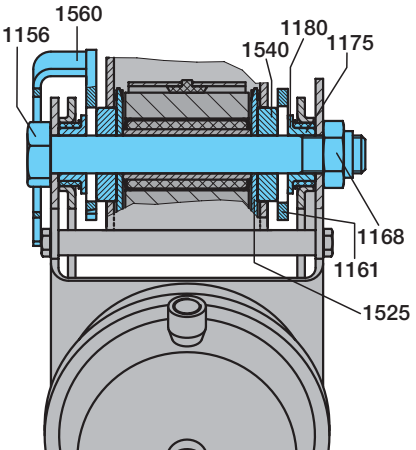
Hanger bracket with elongated bush, trailing arm 70 mm wide

Standard	Sidewise mounted axle lift	Two-side axle lift
		

Hanger bracket with square profile, trailing arm 100 mm wide

Standard	Sidewise mounted axle lift	Two-side axle lift
		

Hanger bracket with elongated bush, trailing arm 100 mm wide

Standard	Sidewise mounted axle lift	Two-side axle lift
		

Spring pivot bolt bearings, adjustable, steel hanger brackets / integrated supports

Item	Designation	Dimension	BPW Code no.	Trailing arm								
				70 mm wide			100 mm wide					
				Steel hanger bracket with elongated hole			Steel hanger bracket with shaped piece			Steel hanger bracket with elongated hole		
				Standard	Sidewise mounted axle lift device	Two-side axle lift	Standard	Sidewise mounted axle lift device	Two-side axle lift	Standard	Sidewise mounted axle lift device	Two-side axle lift
			Further details - Page	67	69	73	67	71	75	67	71	75
1150	Repair kit spring bolt (Item 1005, 1152, 1540)		09.801.06.87.0				•			•		
			09.801.06.92.0									
1152	Spring bolt assembly											
	(Item 1155, 1160, 1161, 1163, 1168)		05.857.00.09.0				•					
	(Item 1155, 1161, 1163, 1168, 1525)		05.857.00.15.0							•		
	(Item 1155, 1161, 1163, 1168, 1525)		05.857.00.18.0	•								
1153	Spring bolt assembly											
	(Item 1156, 1160, 1161, 1165, 1168, 1175, 1180)		05.857.00.07.0					•				
	(Item 1156, 1165, 1168, 1175, 1180, 1560)		05.857.00.13.0								•	
1155	Screw (Spring bolt)	M 30 x 200	03.341.05.04.0				•			•		
		M 30 x 170	03.341.05.05.0	•								
1156	Screw (Spring bolt)	M 30 x 265	03.340.15.37.0					•			•	
		M 30 x 255	03.340.15.39.0						•			•
		M 30 x 235	03.340.15.41.0		•							
		M 30 x 220	02.5023.66.82			•						
1160	Slider		03.181.20.08.0				•	•	•			
1161	Plate (fit connecting link disc)	104 x 72 x 8	03.281.54.14.0				•	•	•			
		104 x 57.5 x 8	03.281.54.18.0	•	•	•				•	•	•
1165	Washer	Ø 31 / 46 x 6	03.320.34.53.0	•			•			•		
		Ø 31 / 62 x 5	03.320.34.51.0		•			•				
		A 31	02.5401.31.01								•	
1168	Lock nut	M 30 / SW 46	03.260.15.01.0	•	•	•	•	•	•	•	•	•
1175	Bush (Polyamid)	Ø 41 / 50 x 23	03.113.94.10.0		•			•			•	
		Ø 42/50/54 x 17.5	03.113.04.11.0						•			•
1180	Ring	Ø 30 / 39 x 25	03.310.30.49.0		•			•				
	Bush	Ø 30/42/62 x 22	03.113.01.37.0			•						•
		Ø 30/40/46 x 25/31	03.113.01.29.0								•	
1525	Plate		03.281.25.04.0				•	•	•			
1525	Shaped plate		03.164.35.01.0			•				•	•	•
			03.164.35.02.0	•	•							
1540	Shaped part	92 x 62 x 29	03.001.14.86.0				•	•	•			
	Bush	Ø 30.3/42.6/74 x 23	03.113.23.01.0	•	•	•				•	•	•
1560	Shaped plate (welded on torsion protection)		03.164.35.07.0					•	•		•	•
1560	Connecting link disc with welded on torsion protection		05.001.32.01.0					•	•			
			05.001.32.02.0		•	•					•	•

Spring pivot bolt bearings for alloy hanger brackets see page 76 - 81.

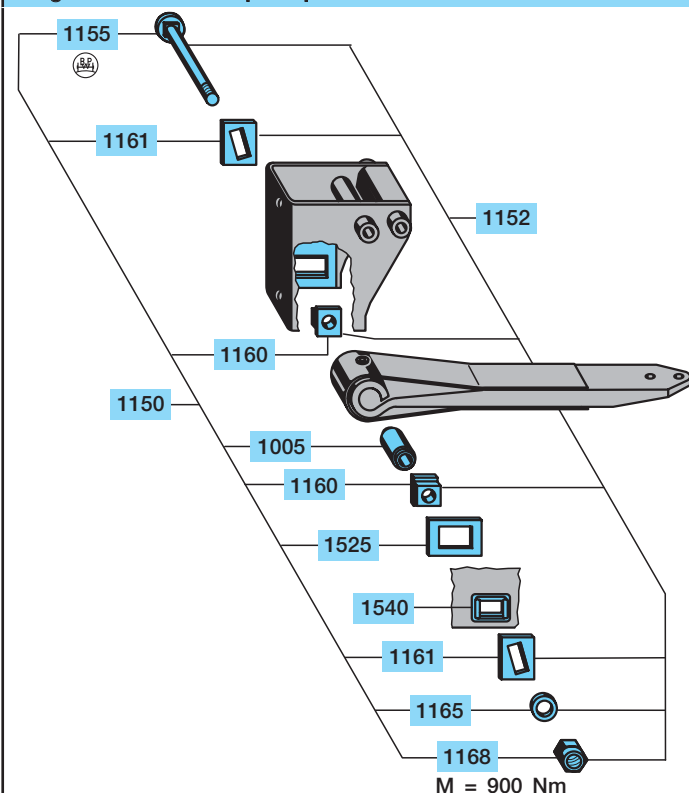
Spring pivot bolt bearings for stainless steel hanger brackets see page 82 - 87.

6.2.1 Spring pivot bolt bearings, adjustable

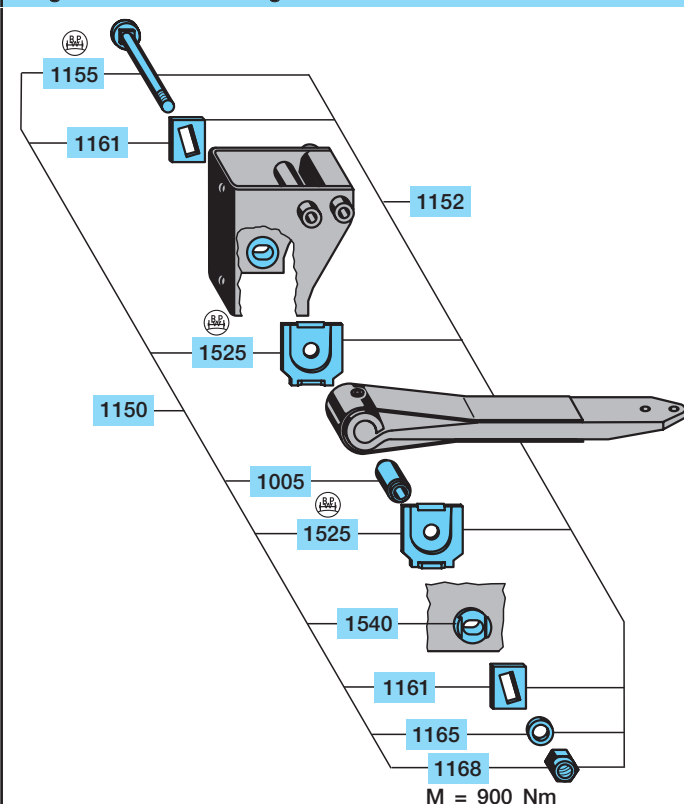
Spring pivot bolt bearings, adjustable

Steel hanger bracket / integrated support / frame trailing arms 100 mm wide

Adjustable spring pivot bolt bearing,
hanger bracket with square profile



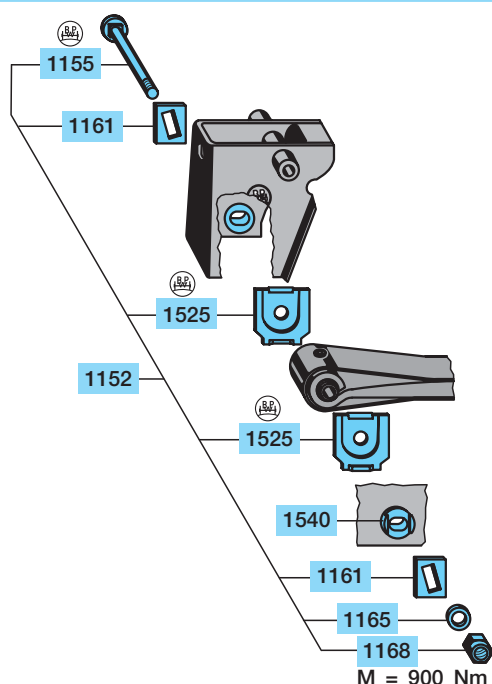
Adjustable spring pivot bolt bearing,
hanger bracket with elongated bush



Steel hanger bracket, trailing arms 70 mm wide

Adjustable spring pivot bolt bearing,
hanger bracket with elongated bush

AL II



Tightening torques

Spring pivot bolt bearing:

Steel hanger bracket / frame:

until 07 / 2001	M 30	M = 750 (700 - 825) Nm
from 08 / 2001	M 30	M = 900 (840 - 990) Nm

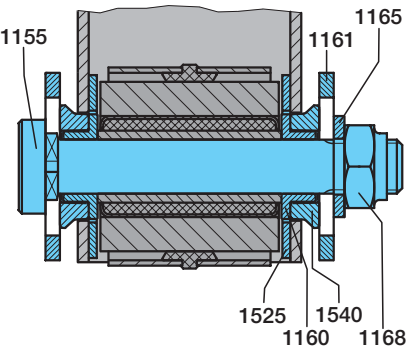
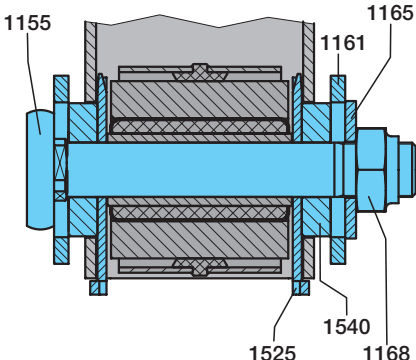
Integrated support:

until 10 / 1998	M 30	M = 1025 - 1210 Nm
from 10 / 1998	M 30	M = 900 (840 - 990) Nm

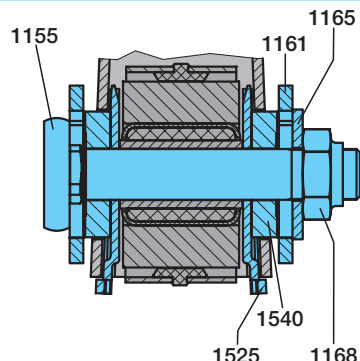
Spring pivot bolt bearings, adjustable 6.2.1

Spring pivot bolt bearings, adjustable

Steel hanger bracket / integrated support / frame, trailing arms 100 mm wide

			Adjustable spring pivot bolt bearing, hanger bracket with square profile	Adjustable spring pivot bolt bearing, hanger bracket with elongated bush
				
Item	Designation	Remark	BPW Code no. Dimension	
1150	Repair kit spring bolt (Item 1005, 1152, 1540)		09.801.06.87.0 (incl. steel / rubber / steel bush)	09.801.06.92.0 (incl. steel / rubber / steel bush)
1152	Spring bolt assembly (Item 1155 - 1168, 1525)		05.857.00.09.0	05.857.00.15.0
1155	Screw (Spring bolt)		03.341.05.04.0 M 30 x 200	03.341.05.04.0 M 30 x 200
1160	Slider		03.181.20.08.0	-
1161	Plate (fit connecting link disc)		03.281.54.14.0 104 x 72 x 8	03.281.54.18.0 104 x 57.5 x 8
1165	Washer		03.320.34.53.0 Ø 31 / 76 x 6	03.320.34.53.0 Ø 31 / 76 x 6
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	03.260.15.01.0 M 30 / SW 46
1525	Plate		03.281.25.04.0 140 x 101 x 4.5	-
	Shaped plate		-	03.164.35.01.0 Ø 30.2 / 120 x 125 x 5
1540	Shaped part		03.001.14.86.0 92 x 62 x 29	-
	Bush		-	03.113.23.01.0 Ø 30.3/42.6 / 74 x 23

Steel hanger bracket / integrated support, trailing arms 70 mm wide

			Adjustable spring pivot bolt bearing, hanger bracket with elongated bush AL II
			
Item	Designation	Remark	BPW Code no. Dimension
1152	Spring bolt assembly (Item 1155 - 1168, 1525)		05.857.00.18.0
1155	Screw (Spring bolt)		03.341.05.05.0 M 30 x 170
1161	Plate (fit connecting link disc)		03.281.54.18.0 104 x 57.5 x 8
1165	Washer		03.320.34.53.0 Ø 31 / 76 x 6
1168	Lock nut		03.260.15.01.0 M 30 / SW 46
1525	Shaped plate		03.164.35.02.0
1540	Bush		03.113.23.01.0 Ø 30.3/42.6 / 74 x 23

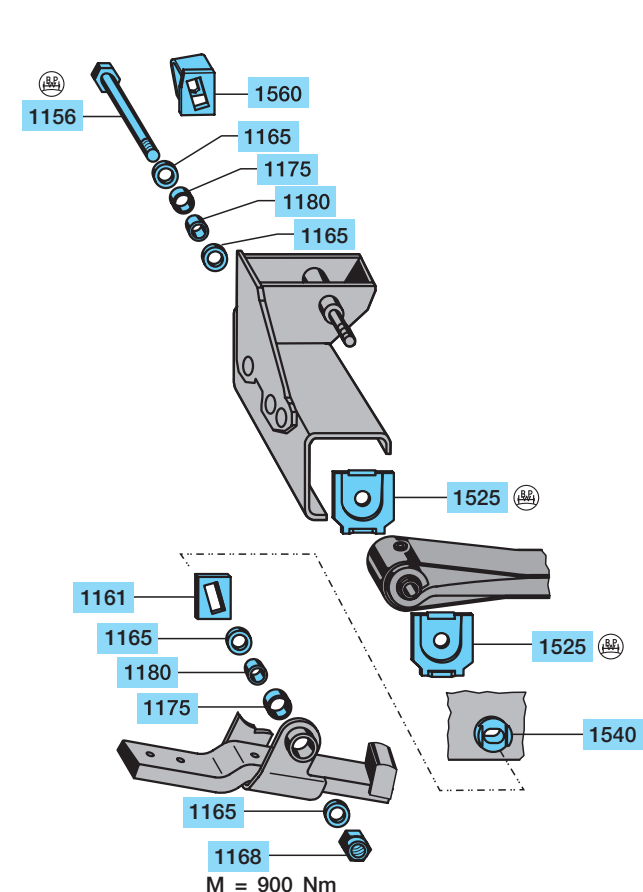
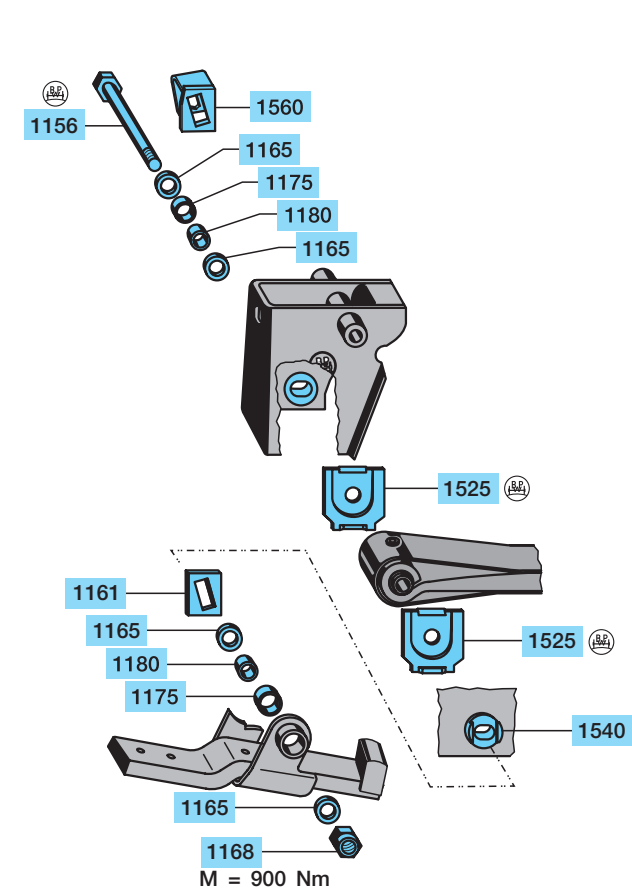
6.2.2 Spring pivot bolt bearings, adjustable, sidewise mounted axle lift

Spring pivot bolt bearings, adjustable, sidewise mounted axle lift

Steel hanger bracket / integrated support, trailing arms 70 mm wide

Adjustable spring pivot bolt bearing,
hanger bracket with elongated bush,
connecting link disc with welded on torsion protection

Adjustable spring pivot bolt bearing,
integrated support with elongated bush,
connecting link disc with welded on torsion protection



Tightening torques

Spring pivot bolt bearing:

Steel hanger bracket / integrated support:

M 30

M = 900 (840 - 990) Nm

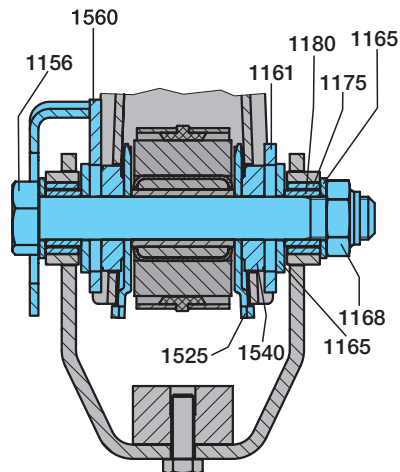
AL

Spring pivot bolt bearings, adjustable, sidewise mounted axle lift 6.2.2

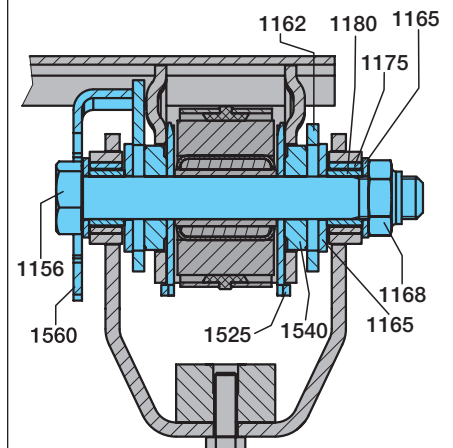
Spring pivot bolt bearings, adjustable, sidewise mounted axle lift

Steel hanger bracket / integrated support, trailing arms 70 mm wide

Adjustable spring pivot bolt bearing,
hanger bracket with elongated bush,
connecting link disc with welded
on torsion protection



Adjustable spring pivot bolt bearing,
integrated support with elongated bush,
connecting link disc with welded
on torsion protection



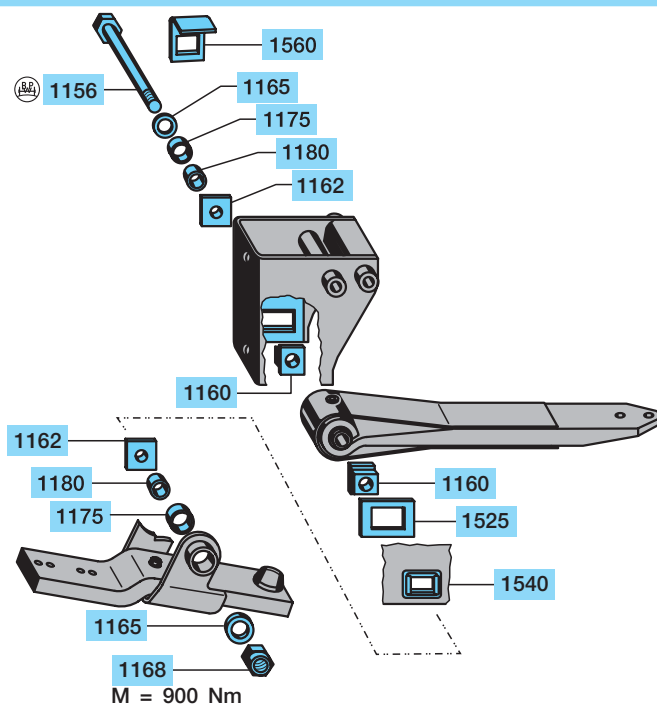
Item	Designation	Remark	BPW Code no.	Dimension	BPW Code no.	Dimension
1156	Screw (Spring bolt)		03.340.15.41.0	M 30 x 235	03.340.15.41.0	M 30 x 235
1161	Plate (fit connecting link disc)		03.281.54.18.0	104 x 57.5 x 8	03.281.54.18.0	104 x 57.5 x 8
1165	Washer		03.320.34.51.0	Ø 31 / 62 x 6	03.320.34.53.0	Ø 31 / 76 x 6
1168	Lock nut		03.260.15.01.0	M 30 / SW 46	03.260.15.01.0	M 30 / SW 46
1175	Bush		03.113.94.10.0	Ø 41 / 50 x 23	03.113.94.10.0	Ø 41 / 50 x 23
1180	Ring		03.310.30.49.0	Ø 30 / 39 x 25	03.310.30.49.0	Ø 30 / 39 x 25
1525	Shaped plate		03.164.35.01.0		03.164.35.02.0	
1540	Bush		03.113.23.01.0	Ø 30.3/42.6 / 74 x 23	03.113.23.01.0	Ø 30.3/42.6 / 74 x 23
1560	Connecting link disc with welded on torsion protection		05.001.32.02.0		05.001.32.02.0	

6.2.2 Spring pivot bolt bearings, adjustable, sidewise mounted axle lift

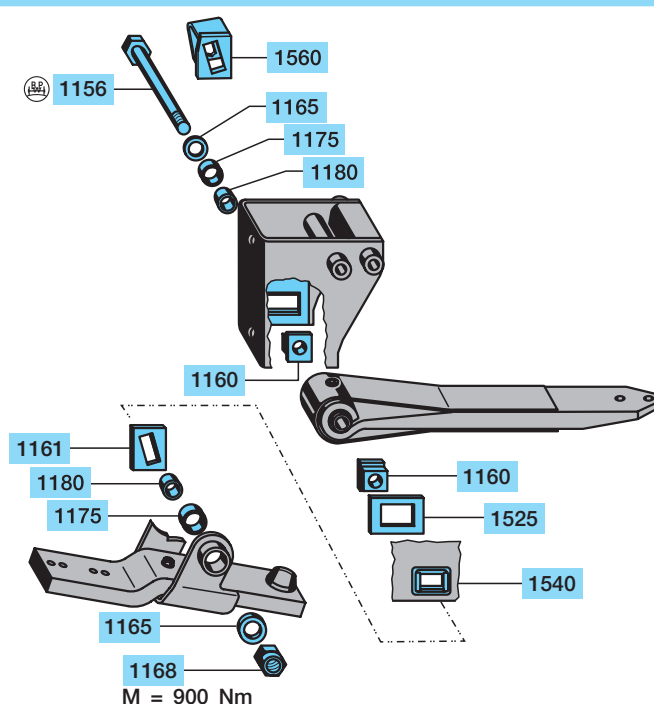
Spring pivot bolt bearings, adjustable, sidewise mounted axle lift

Steel hanger bracket / integrated support / frame, trailing arms 100 mm wide

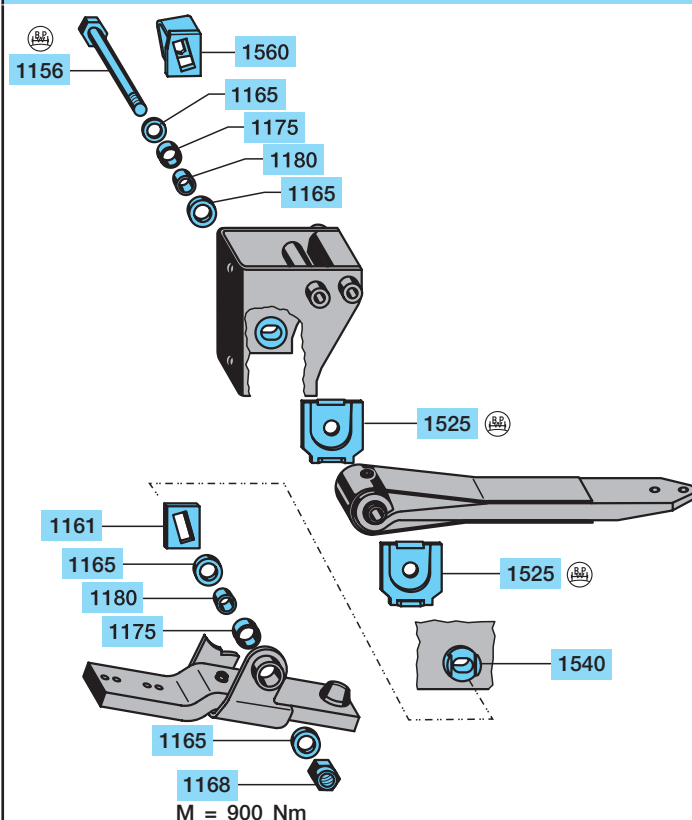
Adjustable spring pivot bolt bearing,
hanger bracket with square profile,
torsion protection welded on the hanger bracket



Adjustable spring pivot bolt bearing,
hanger bracket with square profile,
connecting link disc with welded on torsion protection



Adjustable spring pivot bolt bearing,
hanger bracket with elongated bush,
connecting link disc with welded on torsion protection



Tightening torques

Spring pivot bolt bearing:

Steel hanger bracket / frame:

until 07 / 2001	M 30	M = 750 (700 - 825) Nm
from 08 / 2001	M 30	M = 900 (840 - 990) Nm

Integrated support:

until 10 / 1998	M 30	M = 1025 - 1210 Nm
from 10 / 1998	M 30	M = 900 (840 - 990) Nm

Spring pivot bolt bearings, adjustable, sidewise mounted axle lift 6.2.2

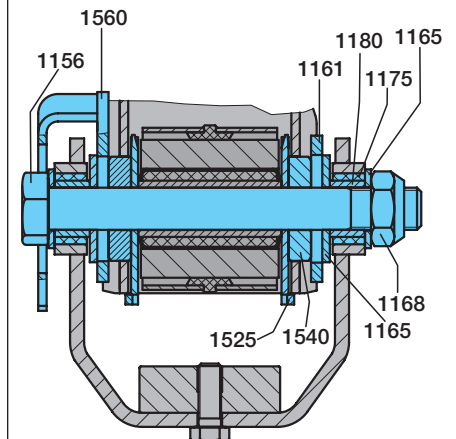
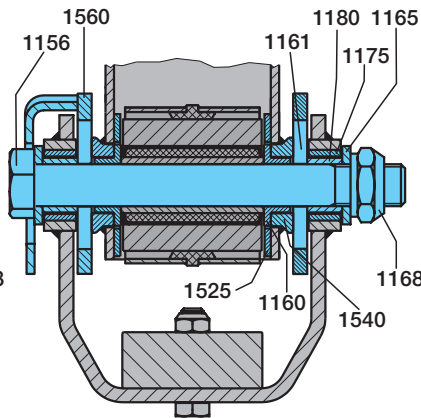
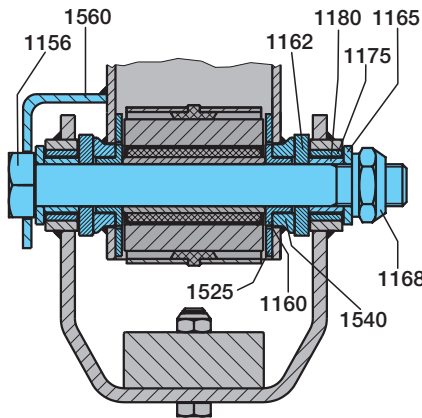
Spring pivot bolt bearings, adjustable, sidewise mounted axle lift

Steel hanger bracket / integrated support / frame, trailing arms 100 mm wide

Adjustable spring pivot bolt bearing, hanger bracket with square profile, torsion protection welded on the hanger bracket

Adjustable spring pivot bolt bearing, hanger bracket with square profile, connecting link disc with welded on torsion protection

Adjustable spring pivot bolt bearing, hanger bracket with elongated bush, connecting link disc with welded on torsion protection



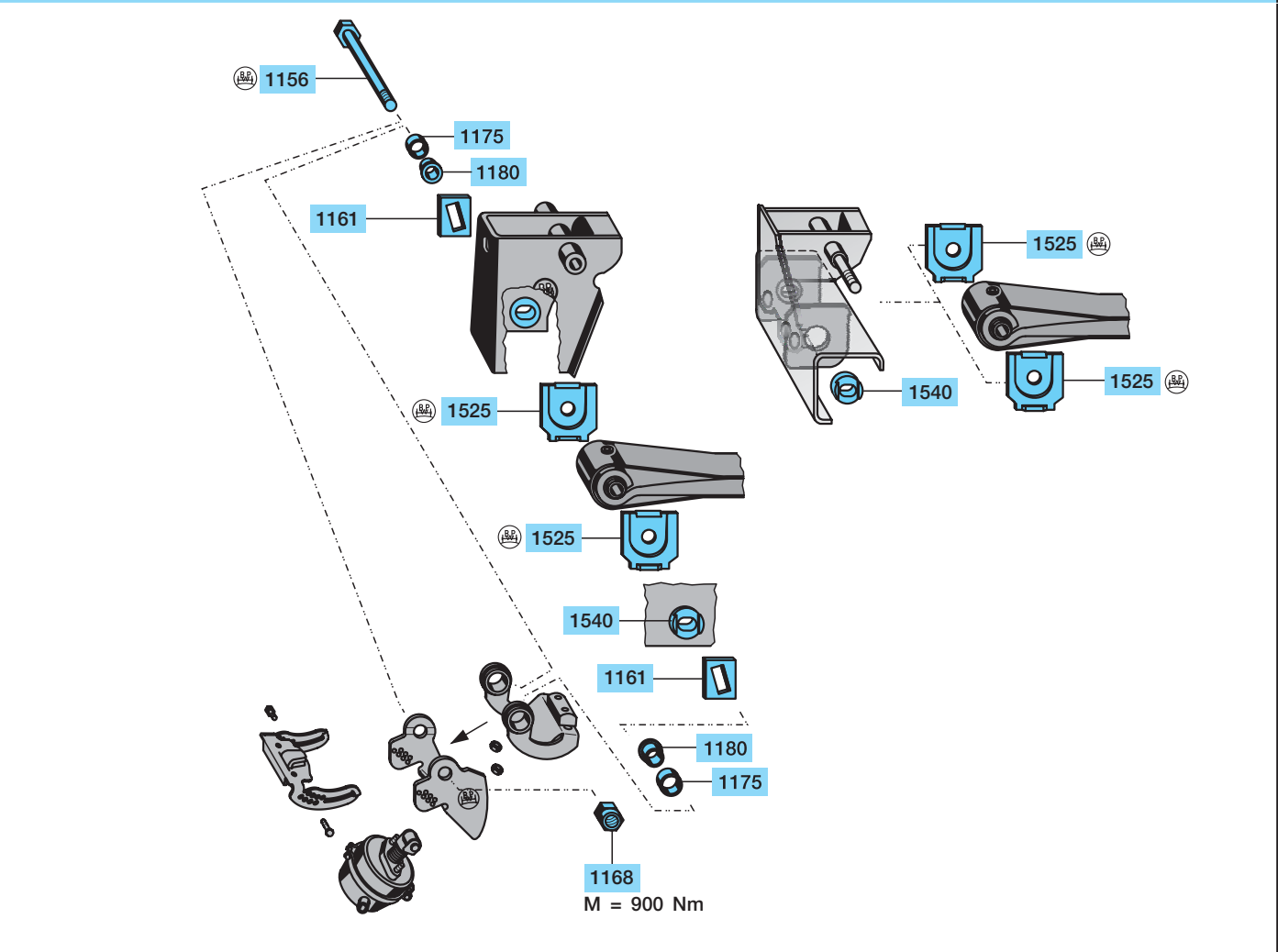
Item	Designation	Remark	BPW Code no. Dimension	
1156	Screw (Spring bolt)		03.340.15.37.0	M 30 x 265
1160	Slider		03.181.20.08.0	-
1161	Plate (fit connecting link disc)		03.281.54.14.0	104 x 72 x 8
1162	Plate		03.281.63.11.0	Ø 31 / □ 72 x 10
1165	Washer		-	02.5401.31.01 A 31 / 125
	Washer		03.320.34.51.0	Ø 31 / 62 x 5
1168	Lock nut		03.260.15.01.0	M 30 / SW 46
1175	Bush		03.113.94.10.0	Ø 41 / 50 x 23
1180	Ring		03.310.30.49.0	Ø 30 / 39 x 25
1525	Plate		03.281.25.04.0	140 x 101 x 4.5
	Shaped plate		-	03.164.35.01.0
1540	Shaped part		03.001.14.86.0	92 x 62 x 29
	Bush		-	03.113.23.01.0 Ø 30.3/42.6 / 74 x 23
1560	Shaped plate (torsion protection)		03.161.35.07.0	-
	Connecting link disc with welded on torsion protection		05.001.32.01.0	05.001.32.02.0

6.2.3 Spring pivot bolt bearings, adjustable, two-side axle lift

Spring pivot bolt bearings, adjustable, two-side axle lift

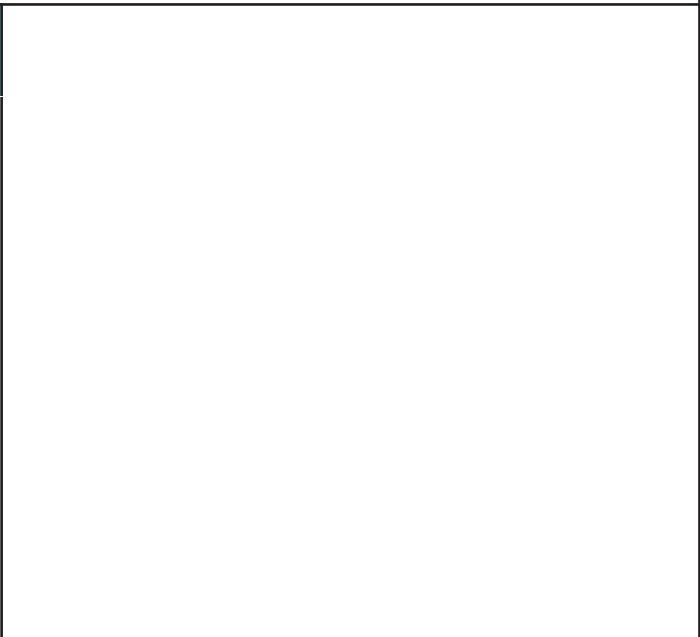
Steel hanger bracket / integrated support, trailing arms 70 mm wide

Adjustable spring pivot bolt bearing, hanger bracket with elongated bush



Tightening torques

Spring pivot bolt bearing:
Steel hanger bracket / integrated support:
M 30 M = 900 (840 - 990) Nm

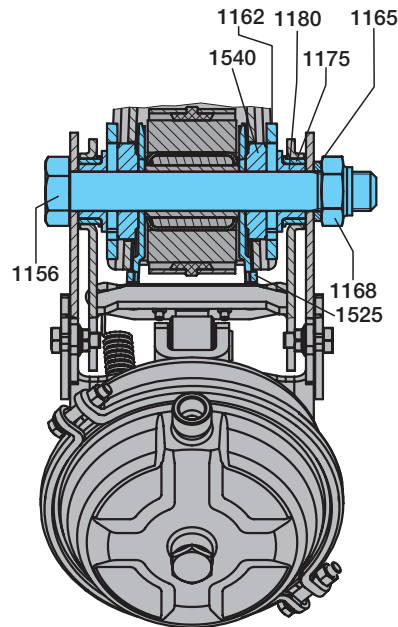


Spring pivot bolt bearings, adjustable, two-side axle lift 6.2.3

Spring pivot bolt bearings, adjustable, two-side axle lift

Steel hanger bracket / integrated support, trailing arms 70 mm wide

Adjustable spring pivot bolt bearing,
hanger bracket with elongated bush



Item	Designation	Remark	BPW Code no.	Dimension
1156	Screw (Spring bolt)		02.5023.66.82	M 30 x 220
1161	Plate (fit connecting link disc)		03.281.54.18.0	104 x 57.5 x 8
1168	Lock nut		03.260.15.01.0	M 30 / SW 46
1175	Bush		03.113.04.11.0	Ø 42 / 50 / 54 x 17.5
1180	Bush		03.113.01.37.0	Ø 30 / 42 / 62 x 22
1525	Shaped plate		03.164.35.02.0	
1540	Bush		03.113.23.01.0	Ø 30.3/42.6 / 74 x 23

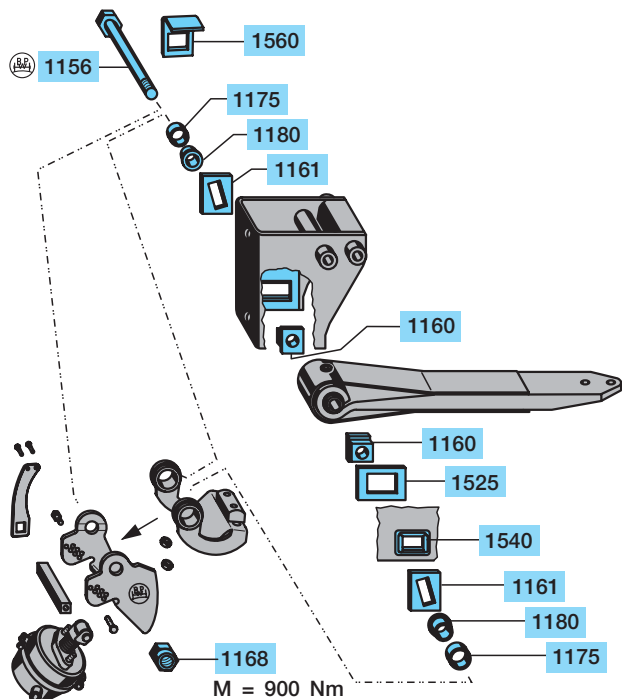
AL

6.2.3 Spring pivot bolt bearings, adjustable, two-side axle lift

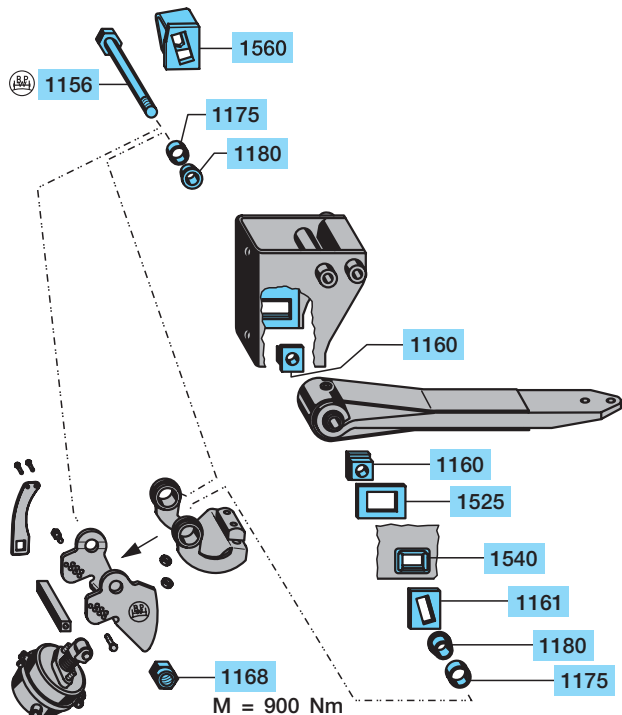
Spring pivot bolt bearings, adjustable, two-side axle lift

Steel hanger bracket / integrated support / frame, trailing arms 100 mm wide

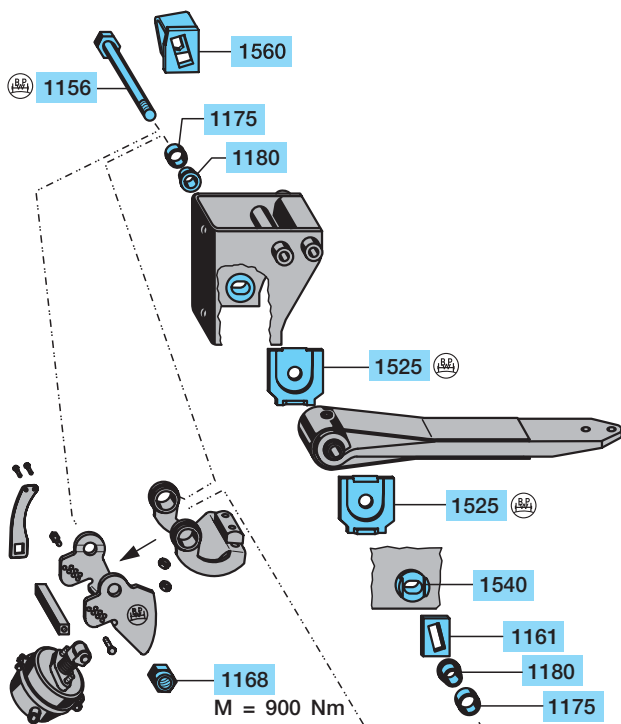
Adjustable spring pivot bolt bearing,
hanger bracket with square profile,
torsion protection welded on the hanger bracket



Adjustable spring pivot bolt bearing,
hanger bracket with square profile,
connecting link disc with welded on torsion protection



Adjustable spring pivot bolt bearing,
hanger bracket with elongated bush,
connecting link disc with welded on torsion protection



Tightening torques

Spring pivot bolt bearing:

Steel hanger bracket / frame:

M 30 M = 900 (840 - 990) Nm

Integrated support:

M 30 M = 900 (840 - 990) Nm

Spring pivot bolt bearings, adjustable, two-side axle lift 6.2.3

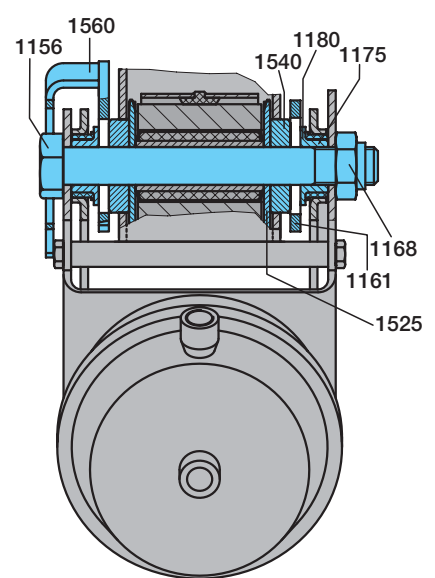
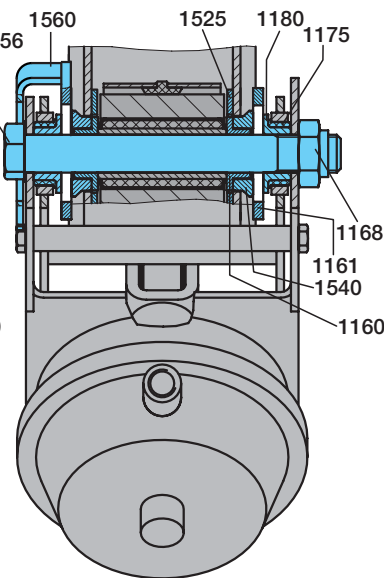
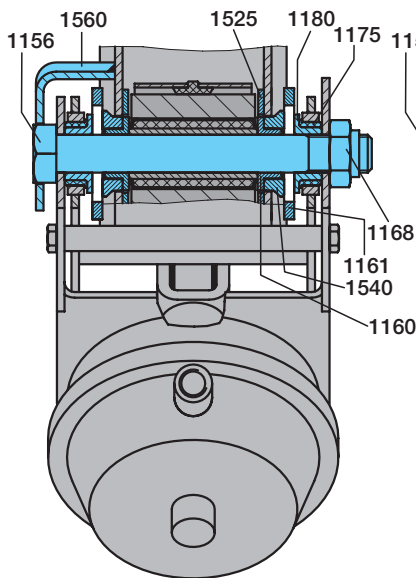
Spring pivot bolt bearings, adjustable, two-side axle lift

Steel hanger bracket / integrated support / frame, trailing arms 100 mm wide

Adjustable spring pivot bolt bearing, hanger bracket with square profile, torsion protection welded on the hanger bracket

Adjustable spring pivot bolt bearing, hanger bracket with square profile, connecting link disc with welded on torsion protection

Adjustable spring pivot bolt bearing, hanger bracket with elongated bush, connecting link disc with welded on torsion protection



Item	Designation	Remark	BPW Code no.	Dimension	BPW Code no.	Dimension
1156	Screw (Spring bolt)		03.340.15.39.0	M 30 x 265	03.340.15.39.0	M 30 x 265
1160	Slider		03.181.20.08.0		-	
1161	Plate (fit connecting link disc)		03.281.54.14.0	104 x 72 x 8	03.281.54.18.0	104 x 57.5 x 8
1168	Lock nut		03.260.15.01.0	M 30 / SW 46	03.260.15.01.0	M 30 / SW 46
1175	Bush		03.113.04.11.0	Ø 42 / 50 / 54 x 17.5	03.113.04.11.0	Ø 42 / 50 / 54 x 17.5
1180	Bush		03.113.01.37.0	Ø 30 / 42 / 62 x 22	03.113.01.37.0	Ø 30 / 42 / 62 x 22
1525	Plate		03.281.25.04.0	140 x 101 x 4.5	-	
	Shaped plate		-		03.164.35.01.0	
1540	Shaped part		03.001.14.86.0	92 x 62 x 29	-	
	Bush		-		03.113.23.01.0	Ø 30.3/42.6 / 74 x 23
1560	Shaped plate (torsion protection)		03.161.35.07.0		-	
	Connecting link disc with welded on torsion protection		05.001.32.01.0		05.001.32.02.0	

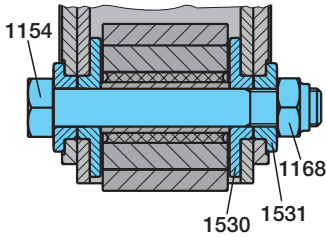
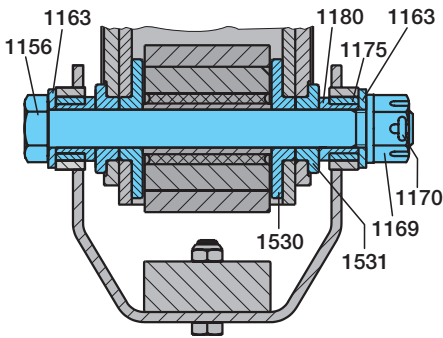
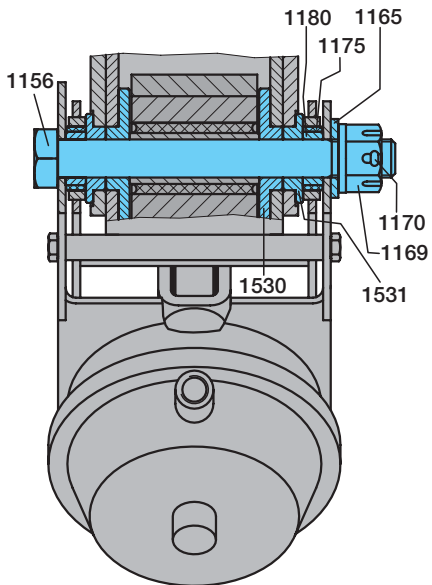
6.3 Spring pivot bolt bearings, alloy hanger bracket

Overview

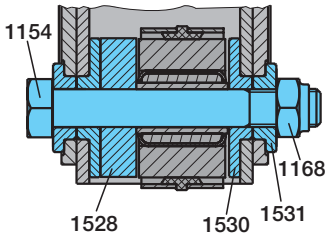
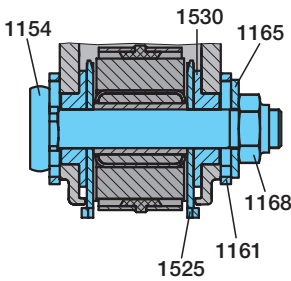
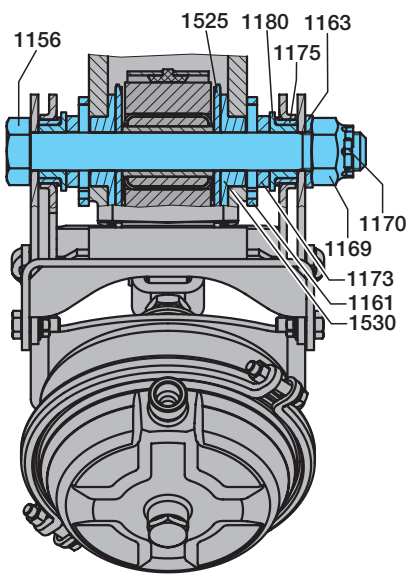
Spring pivot bolt bearings, alloy hanger bracket

Trailing arms 70 / 100 mm wide

Alloy hanger bracket, trailing arm 100 mm wide

Standard	Sidewise mounted axle lift	Two-side axle lift
		

Alloy hanger bracket, trailing arm 70 mm wide

Unadjustable spring pivot bolt bearing, inside dimension of the hanger bracket 100 mm	Adjustable spring pivot bolt bearing, inside dimension of the hanger bracket 83 mm	Adjustable spring pivot bolt bearing, inside dimension of the hanger bracket 83 mm, two-side axle lift
		

Spring pivot bolt bearings, alloy hanger bracket

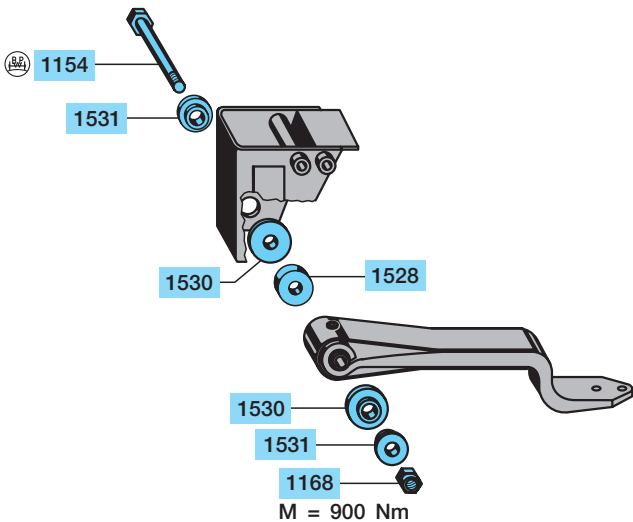
				Trailing arm 70 mm wide			100 mm wide		
				Alloy hanger bracket			Alloy hanger bracket		
Item	Designation	Dimension	BPW Code no.	Unadjustable, inside dimension of the hanger bracket 100 mm	Adjustable, inside dimension of the hanger bracket 83 mm	Adjustable, inside dimension of the hanger bracket 83 mm, two-side axle lift	Standard	Sidewise mounted axle lift device	Two-side axle lift
Further details - Page				79	79	79	81	81	81
1152	Spring bolt assembly (Item 1154, 1168)		05.857.00.06.0				●		
	(Item 1155, 1168, 1528)		05.857.00.21.0	●					
	(Item 1156, 1161, 1165, 1168, 1525)		05.857.00.20.0		●				
1154	Screw (Spring bolt)	M 30 x 210	03.340.15.23.0	●			●		
		M 30 x 180	03.341.05.02.0		●				
		M 30 x 265	03.340.15.40.0			●			●
1156	Screw (Spring bolt)	M 30 x 290	03.340.15.33.0					●	
1161	Plate (fit connecting link disc)	104 x 57.5 x 8	03.281.54.18.0		●				
		86 x 65 x 8	03.281.54.19.0			●			
1163	Washer	Ø 31 / 57 x 6	03.320.32.38.0			●		●	
1165	Washer	Ø 31 / 62 x 5	03.320.34.51.0						●
		Ø 31 / 46 x 6	03.320.34.53.0		●				
1168	Lock nut	M 30 / SW 46	03.260.15.01.0	●	●		●		
1169	Castle nut	M 30 / 935-8	02.5204.35.80			●		●	●
1170	Split pin	6.3 x 50 / 94	02.6201.62.01			●		●	●
1173	Washer	Ø 31 / 56 x 10	03.320.32.41.0			●			
1175	Bush (Polyamid)	Ø 41 / 50 x 23	03.113.94.10.0					●	
		Ø 42/50/54 x 17.5	03.113.04.11.0			●			
	Ring	Ø 42/50 x 15.5	03.310.32.09.0						●
1180	Bush	Ø 30/40/46 x 25/31	03.113.01.29.0					●	
		Ø 30/42/62 x 22	03.113.01.37.0			●			
		Ø 30 / 42 x 16	03.112.13.12.0						●
1525	Shaped plate		03.164.35.01.0		●	●			
1528	Washer	Ø 30.5 / 110 x 30	03.005.01.46.0	●					
1530	Washer	Ø 30/50/110 x 20	03.320.16.04.0	●			●	●	●
	Bush	Ø 30.3/42.5/55	03.113.01.43.0		●	●			
1531	Washer	Ø 30/50/70 x 16	03.320.14.07.0	●			●	●	●

6.3.1 Spring pivot bolt bearings, alloy hanger bracket

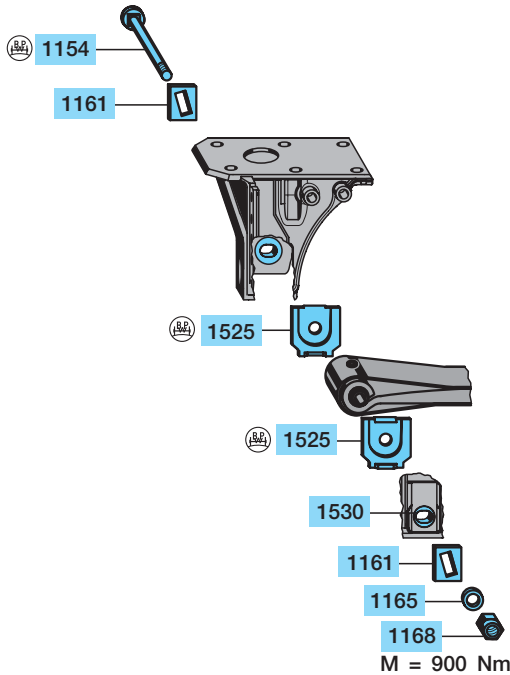
Spring pivot bolt bearings, alloy hanger bracket

Alloy hanger bracket, trailing arms 70 mm wide

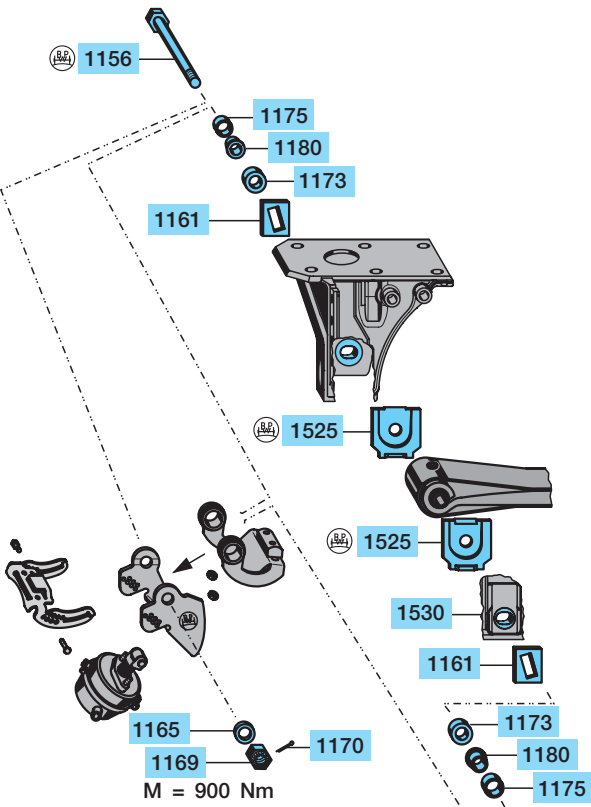
Unadjustable spring pivot bolt bearing,
inside dimension of the hanger bracket 100 mm



Adjustable spring pivot bolt bearing,
inside dimension of the hanger bracket 83 mm



Adjustable spring pivot bolt bearing,
inside dimension of the hanger bracket 83 mm,
two-side axle lift



Tightening torques

Spring pivot bolt bearing:

Alloy hanger bracket:

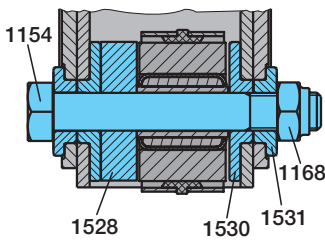
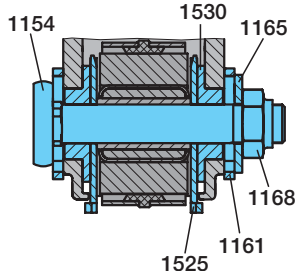
M 30

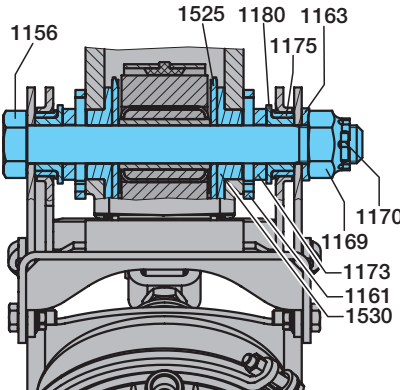
M = 900 (840 - 990) Nm

Spring pivot bolt bearings, alloy hanger bracket 6.3.1

Spring pivot bolt bearings, alloy hanger bracket

Alloy hanger bracket, trailing arms 70 mm wide

			Unadjustable spring pivot bolt bearing, inside dimension of the hanger bracket 100 mm	Adjustable spring pivot bolt bearing, inside dimension of the hanger bracket 83 mm
				
Item	Designation	Remark	BPW Code no. Dimension	BPW Code no. Dimension
1152	Spring bolt assembly (Item 1154 - 1168, 1528)		05.857.00.21.0	05.857.00.20.0
1154	Screw (Spring bolt)		03.340.15.23.0 M 30 x 210	03.341.05.02.0 M 30 x 180
1161	Plate (fit connecting link disc)		-	03.161.54.18.0 104 x 57.5 x 8
1165	Washer		-	03.320.34.53.0 Ø 31 / 46 x 6
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	03.260.15.01.0 M 30 / SW 46
1525	Shaped plate		-	03.164.35.01.0 Ø 30.2 / 120 x 125 x 5
1528	Washer		03.005.01.46.0 Ø 30.5 / 110 x 30	-
1530	Washer		03.320.16.04.0 Ø 30 / 50 / 110 x 20	-
	Bush		-	03.113.01.43.0 Ø 30.3/42.6 / 55/90 x 20
1531	Washer		03.320.14.07.0 Ø 30 / 50 / 70 x 16	-

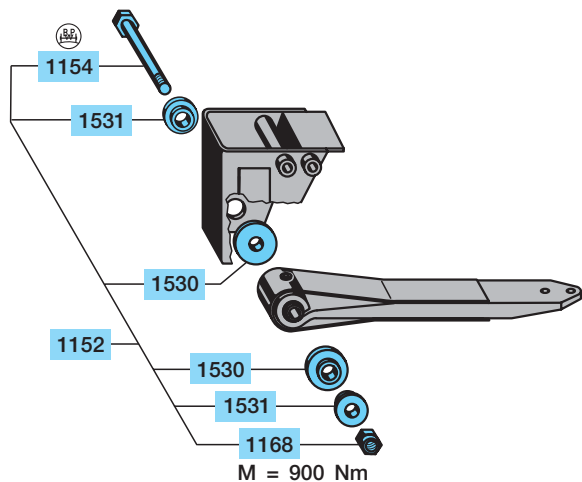
			Adjustable spring pivot bolt bearing, inside dimension of the hanger bracket 83 mm, two-side axle lift	
				
1156	Screw (Spring bolt)		03.340.15.40.0 M 30 x 265	
1161	Plate (fit connecting link disc)		03.281.54.19.0 86 x 65 x 8	
1163	Washer		03.320.32.38.0 Ø 31 / 57 x 6	
1169	Castle nut		02.5204.35.80 M 30	
1170	Split pin		02.6201.62.01 6.3 x 50	
1173	Washer		03.320.32.41.0 Ø 31 / 56 x 10	
1175	Bush		03.113.04.11.0 Ø 42 / 50 / 54 x 17.5	
1180	Bush		03.113.01.37.0 Ø 30 / 42 / 62 x 22	
1525	Shaped plate		03.164.35.01.0 Ø 30.2 / 120 x 125 x 5	
1530	Bush		03.113.01.43.0 Ø 30.3/42.6 / 55/90 x 20	

6.3.2 Spring pivot bolt bearings, alloy hanger bracket

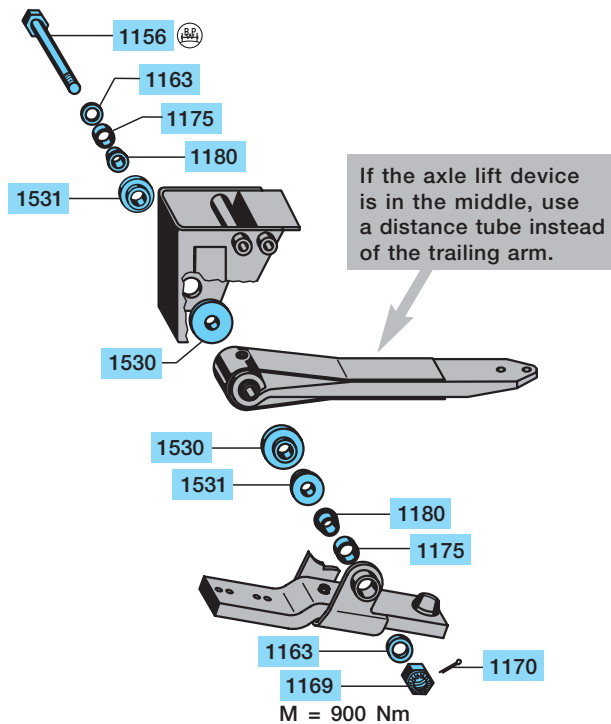
Spring pivot bolt bearings, alloy hanger bracket

Alloy hanger bracket, trailing arms 100 mm wide

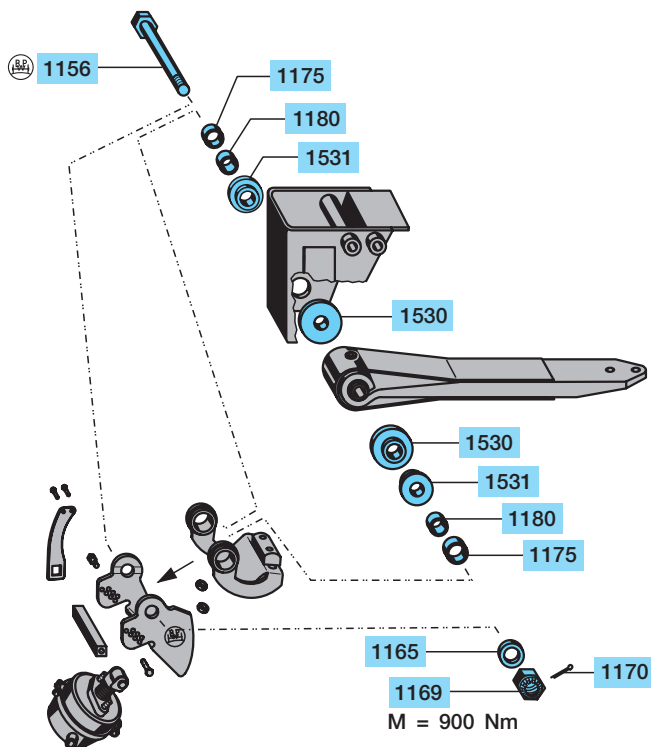
Unadjustable spring pivot bolt bearing



Unadjustable spring pivot bolt bearing, sidewise mounted axle lift



Unadjustable spring pivot bolt bearing, two-side axle lift



Tightening torques

Spring pivot bolt bearing:

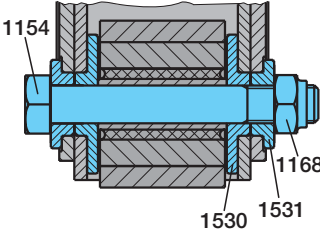
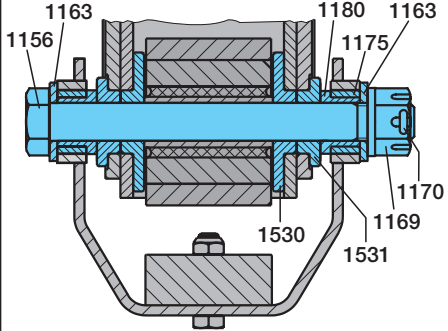
Alloy hanger bracket:

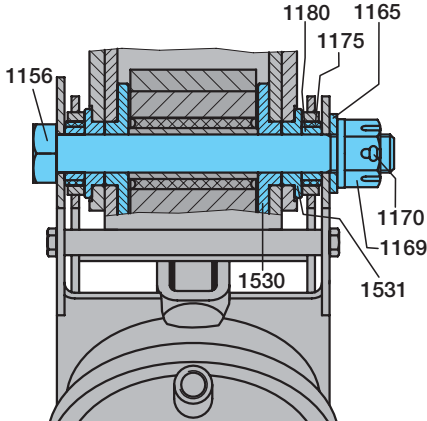
until 07 / 2001 M 30 M = 750 (700 - 825) Nm
from 08 / 2001 M 30 M = 900 (840 - 990) Nm

Spring pivot bolt bearings, alloy hanger bracket 6.3.2

Spring pivot bolt bearings, alloy hanger bracket

Alloy hanger bracket, trailing arms 100 mm wide

			Unadjustable spring pivot bolt bearing	Unadjustable spring pivot bolt bearing, sidewise mounted axle lift
				
Item	Designation	Remark	BPW Code no. Dimension	BPW Code no. Dimension
1152	Spring bolt assembly (Item 1154, 1168, 1530, 1531)		05.857.00.06.0	-
1154	Screw (Spring bolt)		03.340.15.23.0 M 30 x 210	-
1156	Screw (Spring bolt)		-	03.340.15.33.0 M 30 x 290
1163	Washer		-	03.320.32.38.0 Ø 31 / 57 x 6
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	-
1169	Castle nut		-	02.5204.35.60 M 30 / 935-8
1170	Split pin		-	02.6201.62.01 6.3 x 50 / 94
1175	Bush		-	03.113.94.10.0 Ø 41 / 50 x 23
1180	Bush		-	03.113.01.29.0 Ø 30 / 39 x 25/31
1530	Washer		03.320.16.04.0 Ø 30 / 50 / 110 x 20	03.320.16.04.0 Ø 30 / 50 / 110 x 20
1531	Washer		03.320.14.07.0 Ø 30 / 50 / 70 x 16	03.320.14.07.0 Ø 30 / 50 / 70 x 16

			Unadjustable spring pivot bolt bearing, two-side axle lift
			
1156	Screw (Spring bolt)		03.340.15.40.0 M 30 x 265
1165	Washer		03.320.34.51.0 Ø 31 / 62 x 5
1169	Castle nut		02.5204.35.60 M 30 / 935-8
1170	Split pin		02.6201.62.01 6.3 x 50 7 94
1175	Ring		03.310.92.09.0 Ø 42 / 50 x 15.5
1180	Bush		03.112.13.12.0 Ø 30 / 42 x 16
1530	Washer		03.320.16.04.0 Ø 30 / 50 / 110 x 20
1531	Washer		03.320.14.07.0 Ø 30 / 50 / 70 x 16

6.4 Spring pivot bolt bearings, stainless steel hanger bracket

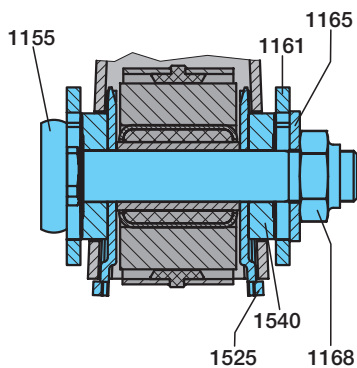
Overview

Spring pivot bolt bearings, stainless steel hanger bracket

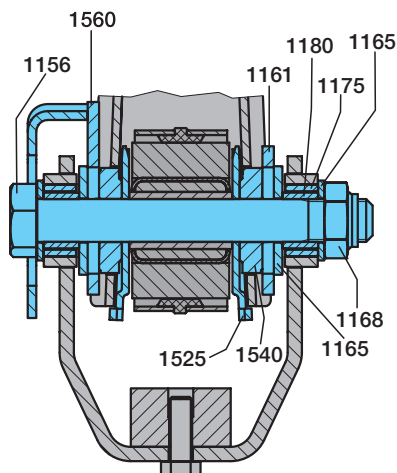
Trailing arms 70 / 100 mm wide

Stainless steel hanger bracket, trailing arm 70 mm wide

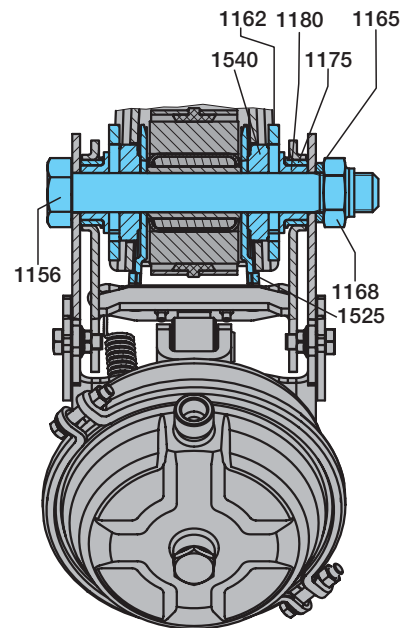
Adjustable spring pivot bolt bearing



Adjustable spring pivot bolt bearing, sidewise mounted axle lift

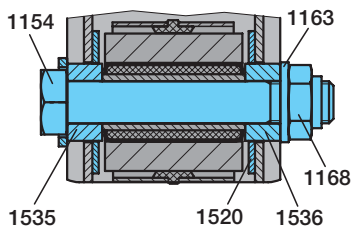


Adjustable spring pivot bolt bearing, two-side axle lift

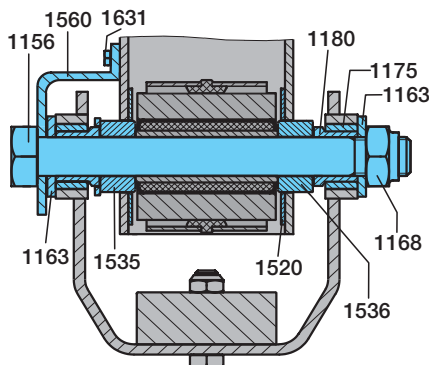


Stainless steel hanger bracket, trailing arm 100 mm wide

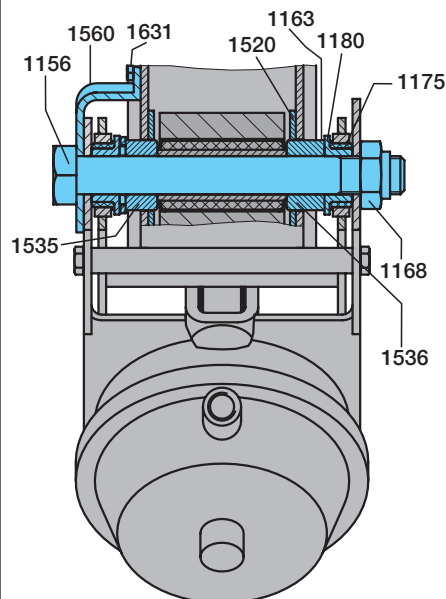
Unadjustable spring pivot bolt bearing



Unadjustable spring pivot bolt bearing, sidewise mounted axle lift



Unadjustable spring pivot bolt bearing, two-side axle lift



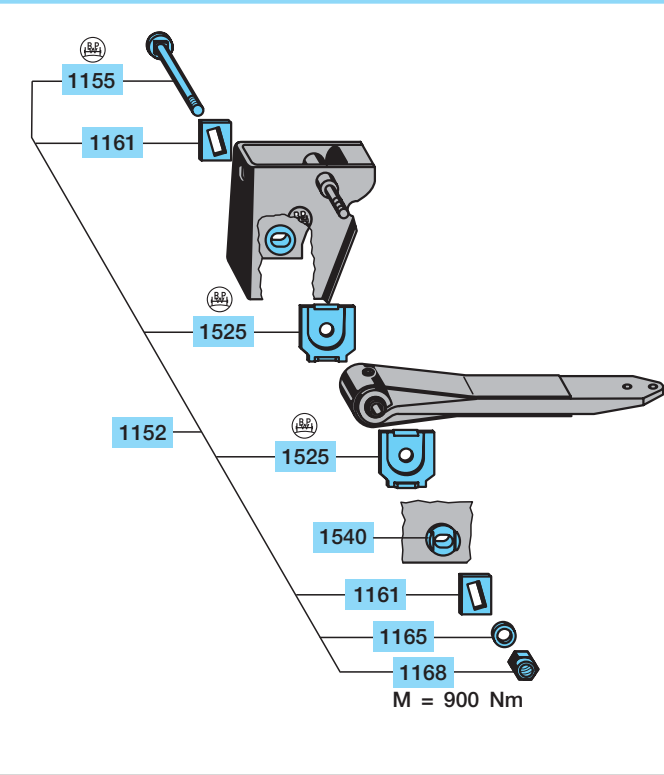
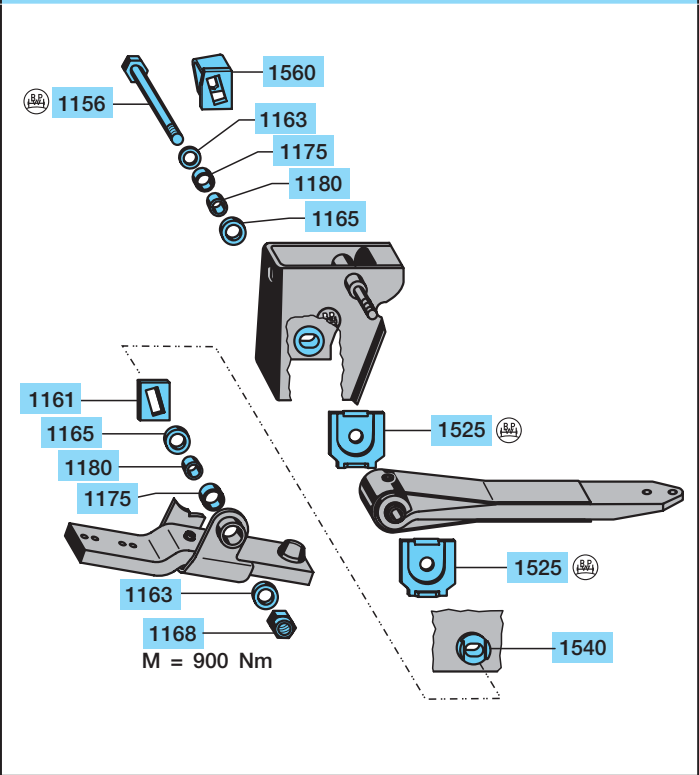
Spring pivot bolt bearings, stainless steel hanger bracket

				Trailing arm 70 mm wide			100 mm wide		
				Stainless steel hanger bracket			Stainless steel hanger bracket		
				Adjustable spring pivot bolt bearing	Adjustable spring pivot bolt bearing, sidewise mounted axle lift device	Adjustable spring pivot bolt bearing, two-side axle lift	Unadjustable spring pivot bolt bearing	Unadjustable spring pivot bolt bearing, sidewise mounted axle lift device	Unadjustable spring pivot bolt bearing, two-side axle lift
Item	Designation	Dimension	BPW Code no.						
	Further details - Page			85	85	85	87	87	87
1152	Spring bolt assembly (Item 1155, 1161, 1165, 1168, 1560)		05.857.00.18.0	●					
	(Item 1154, 1163, 1168)		05.857.00.16.0				●		
1154	Screw (Spring bolt)	M 30 x 190	03.340.15.27.0				●		
1155	Screw (Spring bolt)	M 30 x 170	03.341.05.05.0	●					
1156	Screw (Spring bolt)	M 30 x 235	03.340.15.41.0		●				
		M 30 x 220	02.5023.66.82			●			
		M 30 x 265	03.340.15.37.0					●	
		M 30 x 255	03.340.15.39.0						●
1161	Plate (fit connecting link disc)	104 x 57.5 x 8	03.281.54.18.0	●	●	●			
1163	Washer	Ø 31 / 57 x 6	02.5401.31.01		●			●	
		Ø 31 / 57 x 6	03.320.32.38.0				●		
1165	Washer	Ø 31 / 76 x 5	03.320.34.53.0	●	●				
1168	Lock nut	M 30 / SW 46	03.260.15.01.0	●	●	●	●	●	●
1175	Bush (Polyamid)	Ø 41 / 50 x 23	03.113.94.10.0		●			●	
		Ø 42/50/54 x 17.5	03.113.04.11.0			●			●
1180	Ring	Ø 30 / 39 x 25	03.310.30.49.0		●				
	Bush	Ø 30/42/62 x 22	03.113.01.37.0			●			●
		Ø 30 / 39 x 25/31	03.113.01.29.0					●	
1520	Plate	Ø 56 / □ 101/140 x 5	03.281.25.07.0				●	●	●
1525	Shaped plate		03.164.35.02.0	●		●			
			03.164.35.01.0		●				
1535	Bush with torsion protection	Ø 30.5 / 55 x 31	05.113.01.40.0					●	●
1536	Ring	Ø 30.5 / 55 x 25	03.310.32.45.0				●	●	●
1540	Bush	Ø 30.5/42.6/74x23	03.113.01.45.0	●	●	●			
1560	Connecting link disc with welded on torsion protection		05.001.32.02.0		●				
	Shaped part (screwed on torsion protection)		03.001.14.88.0					●	●
1631	Locking screw	M 8 x 45	02.5071.37.00					●	●

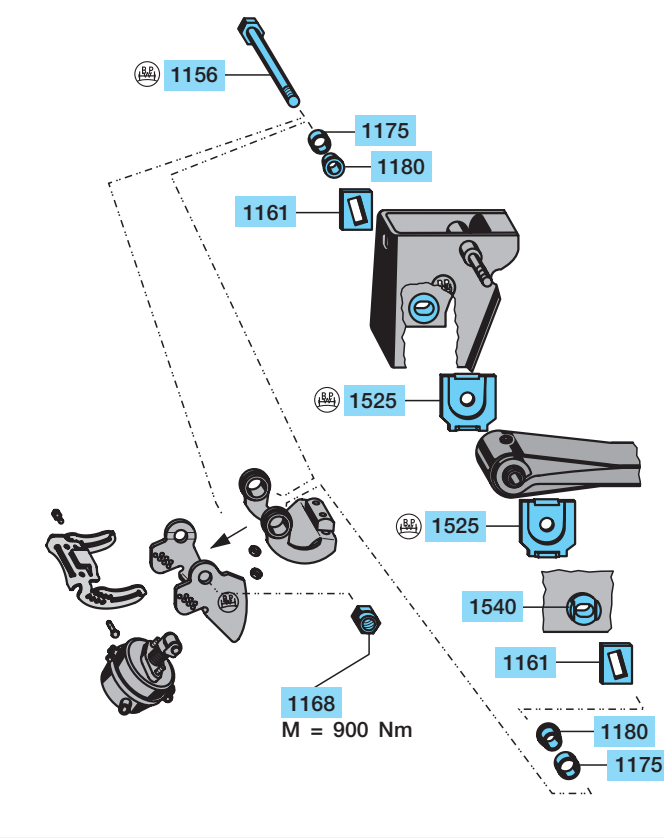
6.4.1 Spring pivot bolt bearings, stainless steel hanger bracket

Spring pivot bolt bearings, ajustable, stainless steel hanger bracket

Stainless steel hanger bracket, trailing arms 70 mm wide

Adjustable spring pivot bolt bearing	Adjustable spring pivot bolt bearing, sidewise mounted axle lift
	

Adjustable spring pivot bolt bearing, two-side axle lift	Tightening torques
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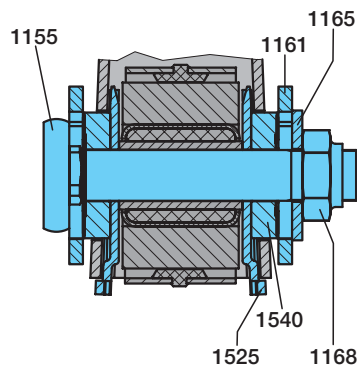
	Spring pivot bolt bearing: Stainless steel hanger bracket: M 30 M = 900 (840 - 990) Nm
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Spring pivot bolt bearings, stainless steel hanger bracket 6.4.1

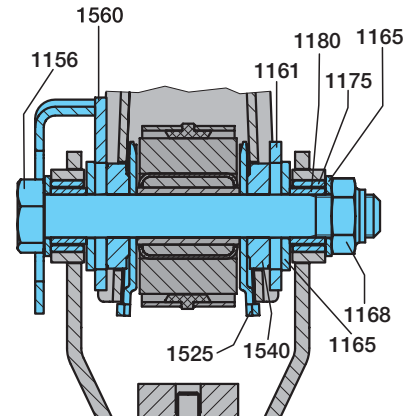
Spring pivot bolt bearings, ajustable, stainless steel hanger bracket

Stainless steel hanger bracket, trailing arms 70 mm wide

Adjustable spring pivot bolt bearing, hanger bracket with elongated bush

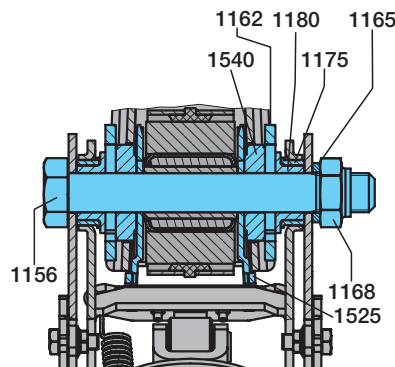


Adjustable spring pivot bolt bearing, hanger bracket with elongated bush, sidewise mounted axle lift



Item	Designation	Remark	BPW Code no. Dimension	BPW Code no. Dimension
1152	Spring bolt assembly (Item 1155 - 1168, 1525)		05.857.00.18.0	-
1155	Screw (Spring bolt)		03.341.05.05.0 M 30 x 170	-
1156	Screw (Spring bolt)		-	03.340.15.41.0 M 30 x 235
1161	Plate (fit connecting link disc)		03.281.54.18.0 104 x 57.5 x 8	03.281.54.18.0 104 x 57.5 x 8
1163	Washer		-	02.5401.31.01 A 31 / 125
1165	Washer		03.320.34.53.0 Ø 31 / 76 x 6	03.320.34.53.0 Ø 31 / 76 x 6
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	03.260.15.01.0 M 30 / SW 46
1175	Bush		-	03.113.94.10.0 Ø 41 / 50 x 23
1180	Ring		-	03.310.30.49.0 Ø 30 / 39 x 25
1525	Shaped plate		03.164.35.02.0	03.164.35.01.0
1540	Bush		03.113.01.45.0 Ø 30.3/42.6 / 74 x 23	03.113.01.45.0 Ø 30.3/42.6 / 74 x 23
1560	Connecting link disc with welded on torsion protection		-	05.001.32.02.0

Adjustable spring pivot bolt bearing, hanger bracket with elongated bush, two-side axle lift



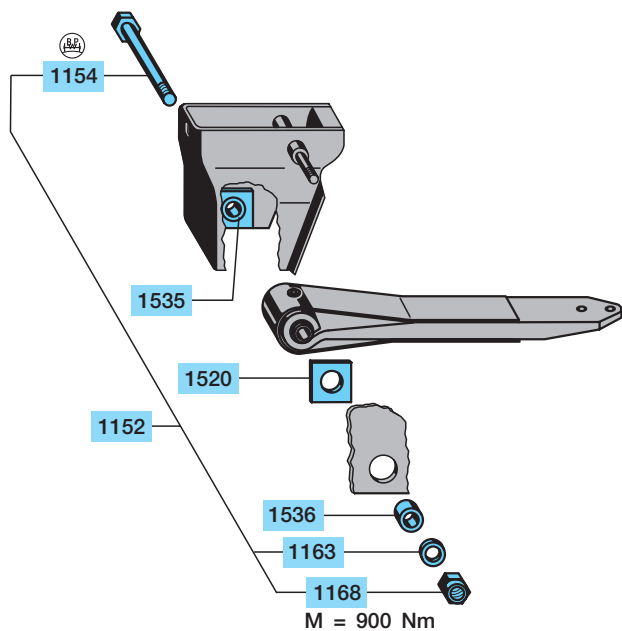
1156	Screw (Spring bolt)	02.5023.66.82 M 30 x 220
1161	Plate (fit connecting link disc)	03.281.54.18.0 104 x 57.5 x 8
1168	Lock nut	03.260.15.01.0 M 30 / SW 46
1175	Bush	03.113.04.11.0 Ø 42 / 50 / 54 x 17.5
1180	Bush	03.113.01.37.0 Ø 30 / 42 / 62 x 22
1525	Shaped plate	03.164.35.02.0
1540	Bush	03.113.01.45.0 Ø 30.3/42.6 / 74 x 23

6.4.2 Spring pivot bolt bearings, stainless steel hanger bracket

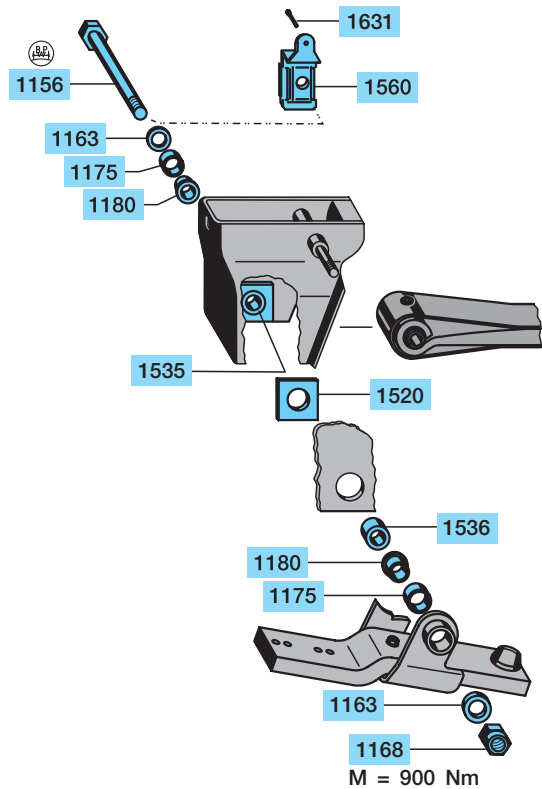
Spring pivot bolt bearings, unadjustable, stainless steel hanger bracket

Stainless steel hanger bracket, trailing arms 100 mm wide

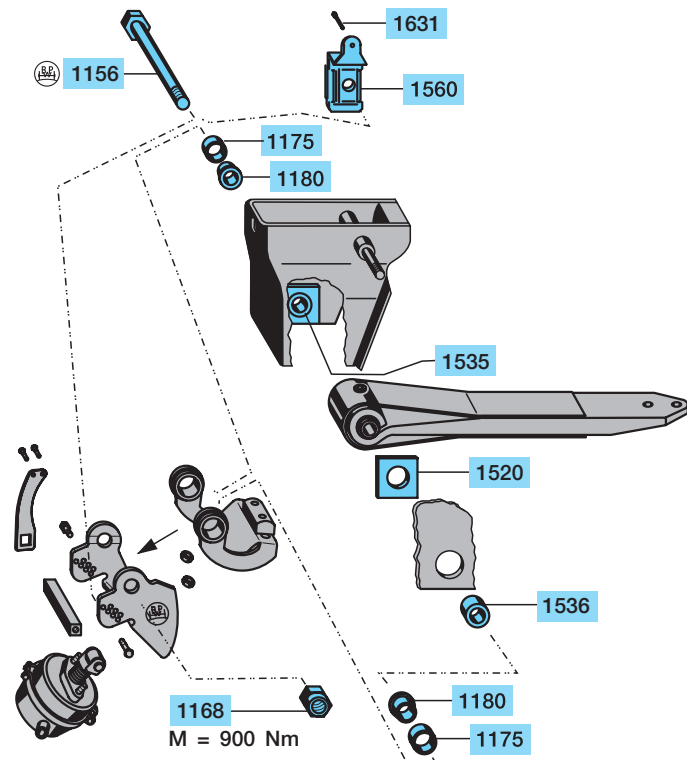
Unadjustable spring pivot bolt bearing



Unadjustable spring pivot bolt bearing, sidewise mounted axle lift



Unadjustable spring pivot bolt bearing, two-side axle lift



Tightening torques

Spring pivot bolt bearing:

Stainless steel hanger bracket:

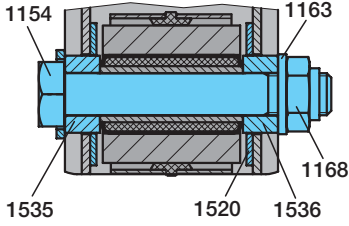
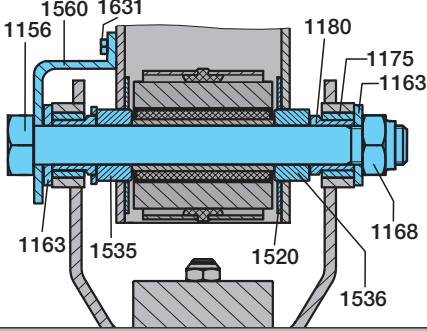
M 30

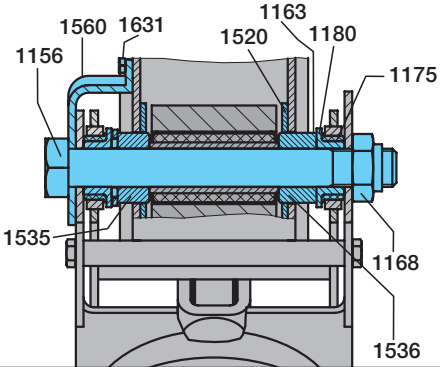
$M = 900 (840 - 990) \text{ Nm}$

Spring pivot bolt bearings, stainless steel hanger bracket 6.4.2

Spring pivot bolt bearings, unadjustable, stainless steel hanger bracket

Stainless steel hanger bracket, trailing arms 100 mm wide

			Unadjustable spring pivot bolt bearing, stainless steel hanger bracket	Unadjustable spring pivot bolt bearing, stainless steel hanger bracket sidewise mounted axle lift
				
Item	Designation	Remark	BPW Code no. Dimension	BPW Code no. Dimension
1152	Spring bolt assembly (Item 1154, 1163, 1168)		05.857.00.16.0	-
1154	Screw (Spring bolt)		03.340.15.27.0 M 30 x 190	-
1156	Screw (Spring bolt)		-	03.340.15.37.0 M 30 x 265
1163	Washer		03.320.32.38.0 Ø 31 / 57 x 6	02.5401.31.01 A 31 / 125
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	03.260.15.01.0 M 30 / SW 46
1175	Bush		-	03.113.94.10.0 Ø 41 / 50 x 23
1180	Bush		-	03.113.01.29.0 Ø 30 / 39 x 25/31
1520	Plate		03.281.25.07.0 Ø 56 / □ 101 / 140 x 5	03.281.25.07.0 Ø 56 / □ 101 / 140 x 5
1535	Bush with torsion protection		05.113.01.40.0 Ø 30.5 / 55 x 31	05.113.01.40.0 Ø 30.5 / 55 x 31
1536	Ring		03.310.32.45.0 Ø 30.5 / 55 x 25	03.310.32.45.0 Ø 30.5 / 55 x 25
1560	Shaped part (screwed on torsion protection)		-	03.001.14.88.0
1631	Hexagon screw		-	02.5071.37.00 M 8 x 45

			Unadjustable spring pivot bolt bearing, stainless steel hanger bracket, two-side axle lift	
				
1156	Screw (Spring bolt)		03.340.15.39.0 M 30 x 265	
1168	Lock nut		03.260.15.01.0 M 30 / SW 46	
1175	Bush		03.113.04.11.0 Ø 41 / 50 / 54 x 17.5	
1180	Bush		03.113.01.37.0 Ø 30 / 42 / 62 x 22	
1520	Plate		03.281.25.07.0 Ø 56 / □ 101 / 140 x 5	
1535	Bush with torsion protection		05.113.01.40.0 Ø 30.5 / 55 x 31	
1536	Ring		03.310.32.45.0 Ø 30.5 / 55 x 25	
1560	Shaped part (screwed on torsion protection)		03.001.14.88.0	
1631	Hexagon screw		02.5071.37.00 M 8 x 45	

7 BPW Air bags

General

Standard air bag

BPW Air bags are firmly rolled into the top air bag cover and are bonded onto the clamping plate at the bottom by vulcanisation.

The top air bag cover is either bolted onto the frame trussing or else a plate or bracket is welded onto the vehicle frame to attach the bag, depending on the bag version. The air bag cover is bolted onto it using two M 12 securing nuts.

The rolling piston is made from glass-fibre reinforced plastic with a steel support to give reduced weight and resistance to corrosion.

The integrated bump stop protects against damage when the bags are vented.

The air bag plate at the bottom is bolted onto the trailing arm using two M 16 securing bolts.

Air bag with splitted piston (Kombi-Air bag)

A combination air bag is divided into two parts: The air bag is bolted onto the vehicle frame with the rolling piston while the centring cone is connected to the trailing arm or integrated to the spring seats.

When the trailer is lifted, the axle and the cone move downwards. The movement is restricted by the shock absorbers.

However, the air bag remains in its rest position. When the trailer is lowered to the ground, the air bag and centring cone once more come together.

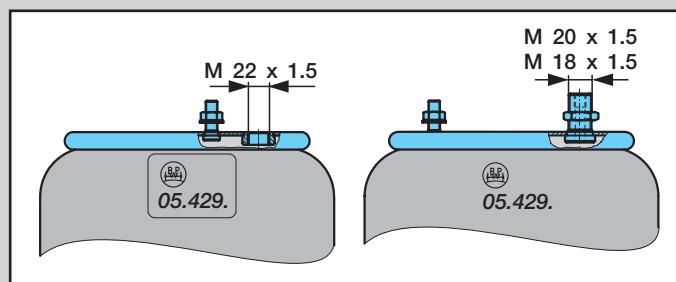
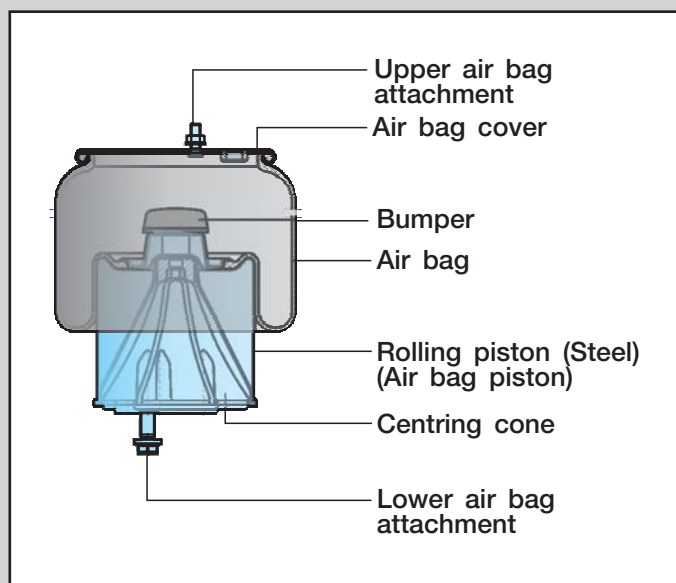
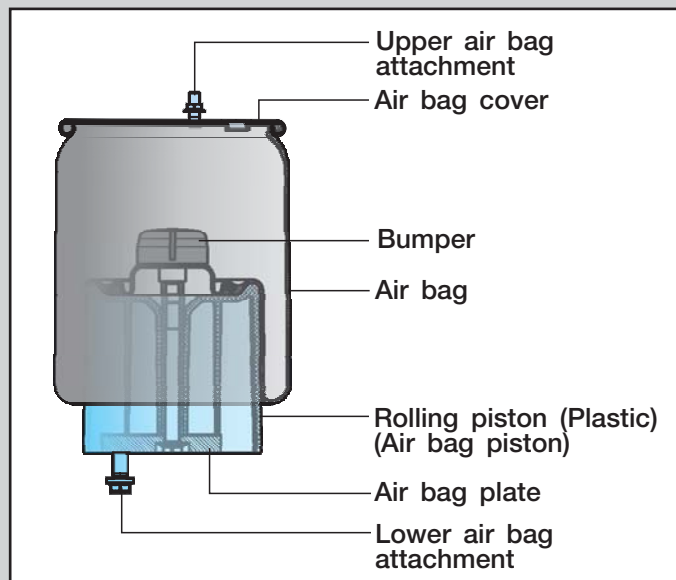
The bag can neither fold nor crease. A long air bag service life is assured.

Stroke limiting

The upward travel is restricted by a bump stop inside the air bag. The downward travel must be restricted under certain application conditions.

Air supply

The pressure needed during driving is applied via a compressed air line that is connected to the air bag via the threaded sleeve (M 22 x 1.5) welded into the air bag cover or via a hollow stay bolt (M 18 x 1.5 / M20 x 1.5).



Determining replacement air bags

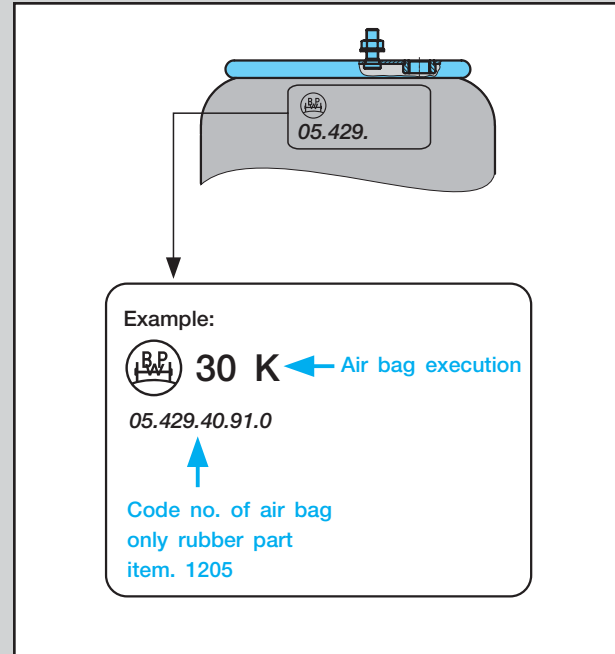
1. Clarifying design

● Standard air bag or split air bag (combination air bag)

Ø 300 **BPW 30** for stroke 200 mm
BPW 30 K for stroke 180 mm

Ø 360 **BPW 36** for stroke 200 mm
BPW 36 K for stroke 180 mm
BPW 36-1 for stroke up to 340 mm
BPW 36-2 for stroke up to 540 mm

The bag design as well as the BPW code no. of the bare air bag can be read off from every air bag.

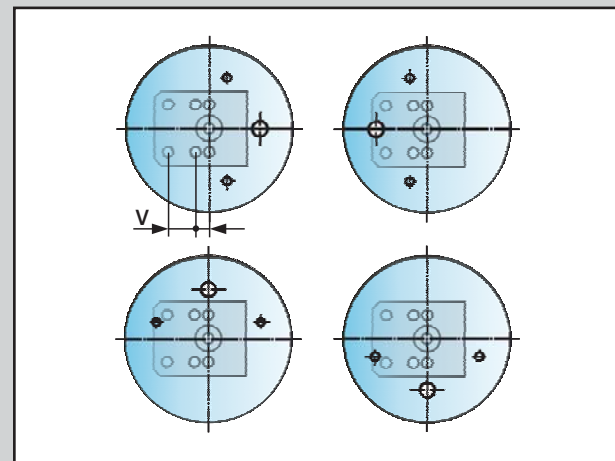


2. Determining the type of air connection.

● Air connection to welded-in threaded sleeve in the air bag cover or to hollow stay bolt.

3. Air bag attachment

- Top air bag attachment in middle of bag or offset to the side?
- Measure the position of the top bag attachment on the frame in relation to the bottom bag attachment on the trailing arm (the maximum lateral offset between the top and bottom bag attachment is not allowed to exceed 10 mm). The top and bottom bag attachments must not be installed with any rotational misalignment!

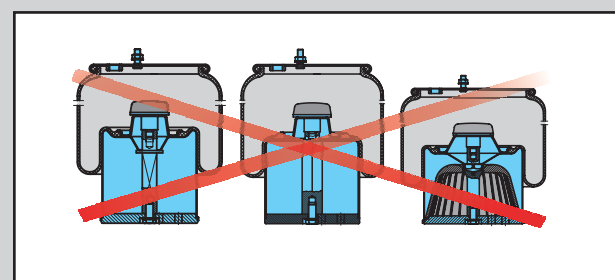


4. Old version of air bags

Complete air bags of the older version, air bags with aluminium pistons and internal aluminium support as well as split bags with glass fibre-reinforced plastic taper (BPW 36) are no longer available.

If replacement is required, change over to BPW air bags with glass fibre-reinforced plastic piston.

The most common spare parts for older air bags with steel piston are still available.



7.1 Air bags Ø 300

Air bags Ø 300

Fig. A

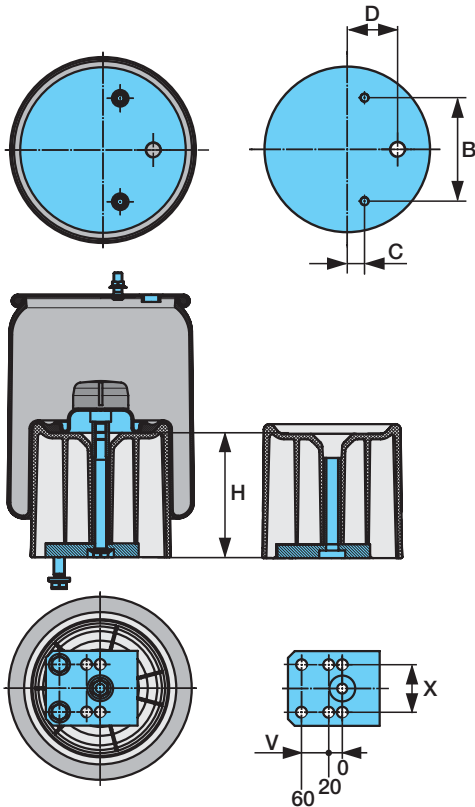
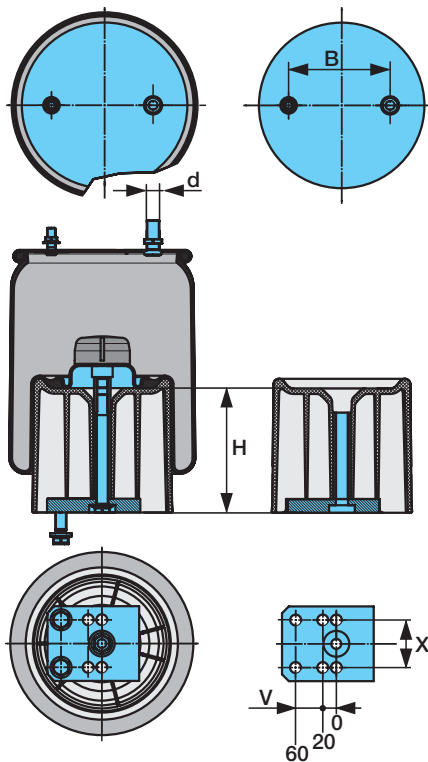


Fig. B



Observe position of upper and lower air bag attachment!

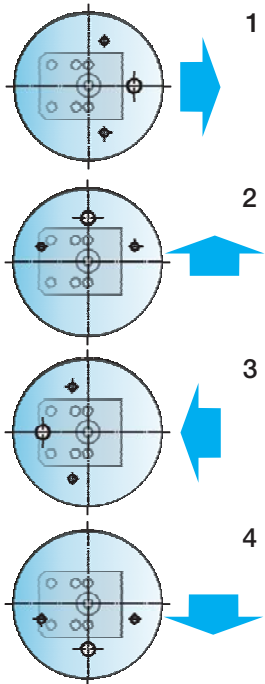
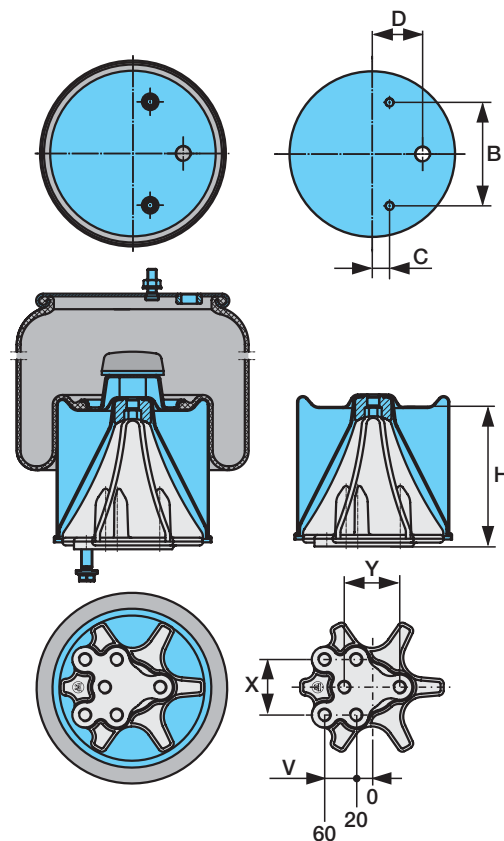
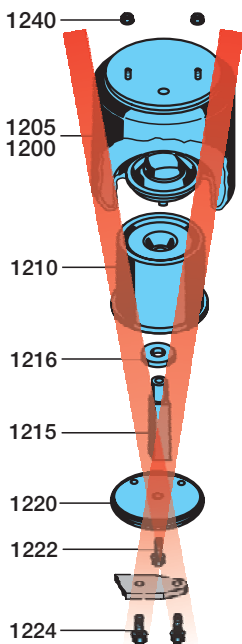


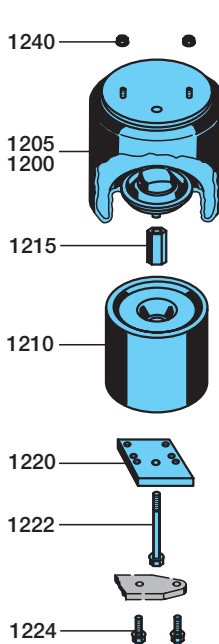
Fig. C



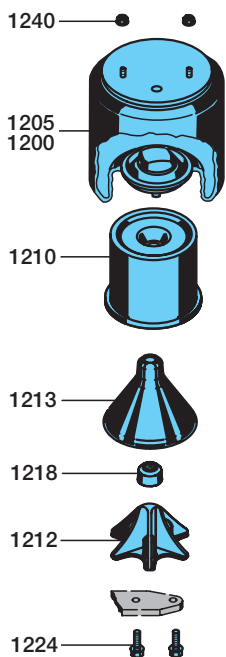
Air bag with steel piston



Air bag with plastic piston



Kombi-Air bag



Air bags Ø 300

	Dimensions								BPW Air bag cpl. Item 1200	BPW Code no. only Item 1205	Air bag piston Item 1210 Item 1210 / 1213	Lower plate Item 1220 Centring cone (Kombi-Air bag) Item 1212			
Fig.	V	X	H	Y	B	C	D	d							
BPW 30															
	Air bag standard														
A 1	0 / 20 / 60	70	180	-	150	0	73	-	05.429.43.29.0	05.429.42.03.0	05.139.39.50.0	03.280.95.02.0			
A 3									05.429.43.30.0						
A 1									05.429.43.20.0	05.429.40.03.0					
A 2						25			05.429.43.34.0						
A 3									05.429.43.56.0						
	Air bag with integrated air connection in stud bolt														
B 2	0 / 20 / 60	70	180	-	170	0	0	M 18x1.5	05.429.43.25.0	05.429.41.25.0	05.139.39.50.0	03.280.95.02.0			
	Air bag with split piston (Kombi-Air bag)														
C 1	0 / 20 / 60	70	180	70	150	25	73	-	05.429.41.91.1	05.429.40.03.0	03.139.00.22.0 03.139.00.23.0	03.375.09.37.0			
BPW 30 K															
	Air bag standard														
A 1	0 / 20 / 60	70	135	-	150	0	73	-	05.429.43.27.0	05.429.42.04.0	05.139.39.51.0	03.280.95.02.0			
A 3									05.429.43.28.0						
A 1						25			05.429.43.21.0	05.429.40.91.0					
A 3			05.429.43.37.0												
A 1			180						05.429.43.22.0	05.139.39.50.0					
A 3									05.429.43.31.0						
			Air bag with integrated air connection in stud bolt												
B 1	0 / 20 / 60	70	135	-	157	0	0	M 20x1.5	05.429.43.23.0	05.429.41.77.0	05.139.39.51.0	03.280.95.02.0			
B 1					170			M 18x1.5	05.429.43.24.0	05.429.41.56.0					
B 3					170			M 18x1.5	05.429.43.32.0	05.429.41.56.0					
B 1			180		157			M 20x1.5	05.429.43.26.0	05.429.41.25.0			05.139.39.50.0		
	Air bag with split piston (Kombi-Air bag)														
C 1	0 / 20 / 60	70	136	70	150	0	73	-	05.429.42.13.1	05.429.42.04.0	03.139.00.25.0 03.139.00.24.0	03.375.09.38.0			
C 1			180			25			05.429.42.05.1	05.429.40.91.0					
C 1									05.429.42.11.1		03.139.00.22.0 03.139.00.23.0		03.375.09.37.0		

Air bags with steel or aluminium pistons are no longer available.

Conversion from steel or alloy piston to plastic piston.

BPW 30 Conversion kit **05.801.09.73.0** for 1 air bag

BPW 30 K Conversion kit **05.801.09.74.0** for 1 air bag

consisting of rolling piston (plastic), air bag plate, and attachment parts.

Conversion see page 94 / 95.

Further executions upon request.

7.2 Air bags Ø 360

Air bags Ø 360

Fig. A BPW 36 / BPW 36-1

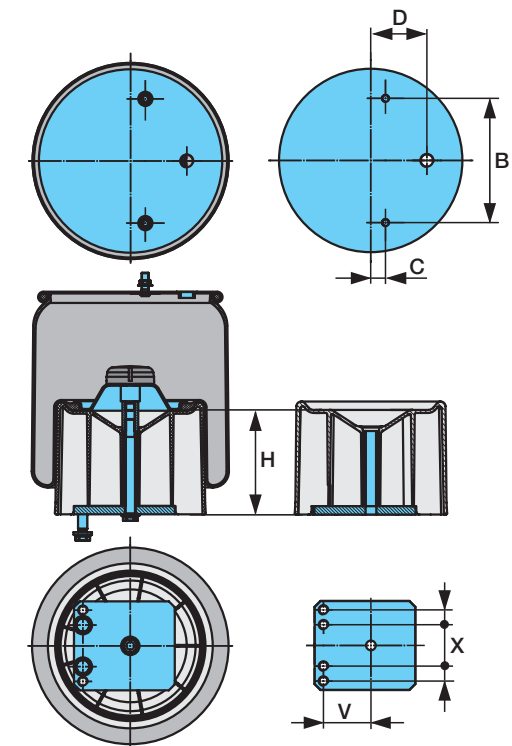
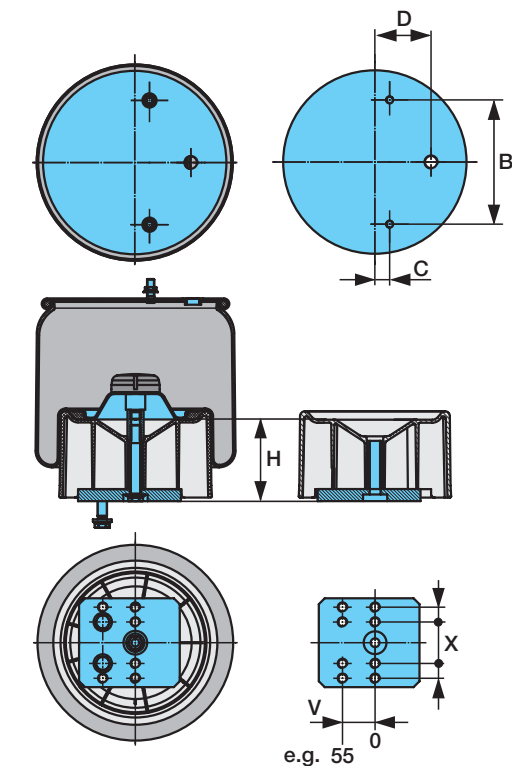


Fig. B BPW 36 K



Observe position of upper and lower air bag attachment!

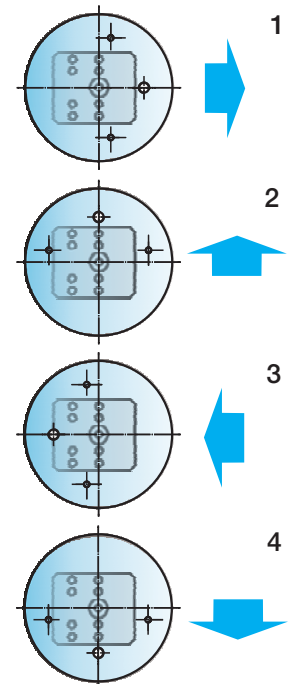
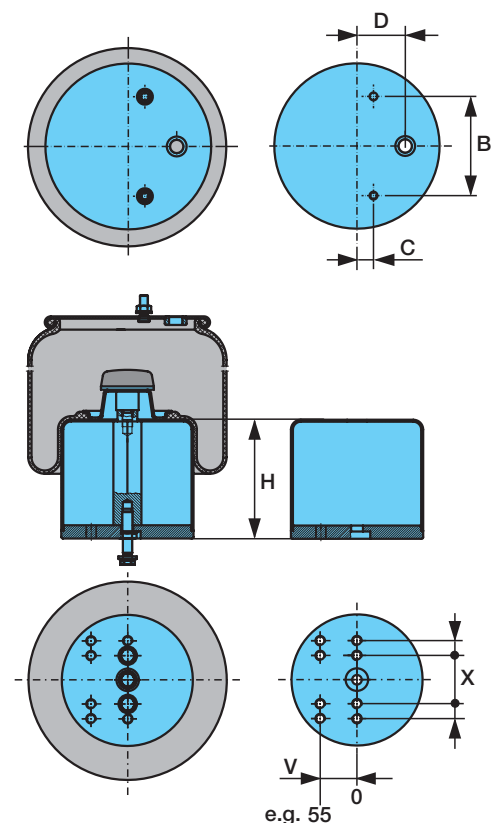
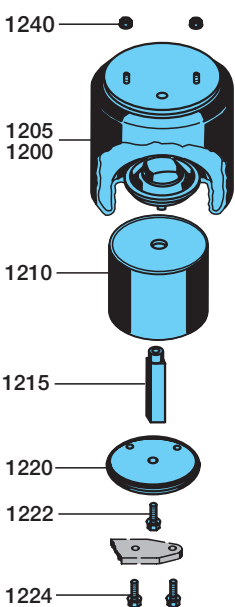


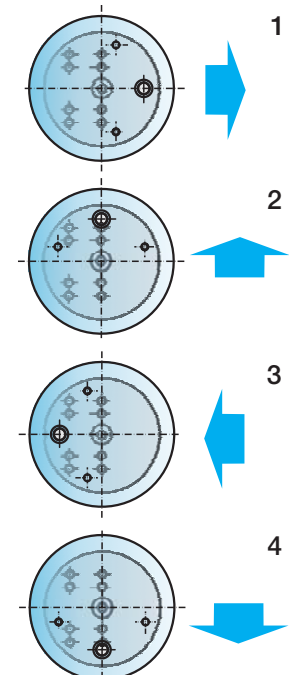
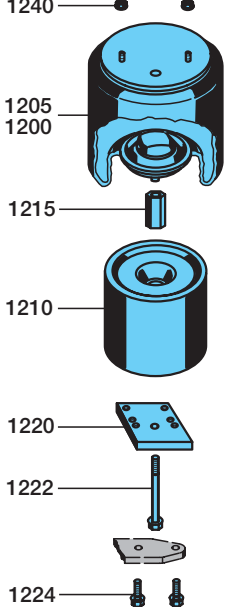
Fig. C BPW 36-1 (Steel piston)



Air bag with steel piston



Air bag with plastic piston



Air bags Ø 360

	Dimensions							BPW Air bag cpl. Item 1200	BPW Code no. only Item 1205	Air bag piston Item 1210	Lower plate Item 1220
Fig.	V	X	H	B	C	D	Remark				
BPW 36											
	Air bag standard										
A 1	0 / 55	70 / 120	180	210	25	95	Plastic piston	05.429.43.48.0	05.429.40.01.0	05.139.39.52.0	03.280.95.04.0
A 1	45 / 80		174					05.429.43.51.0			03.280.95.03.0
A 3	80		05.429.43.50.0					03.280.75.04.0			
A 1	80		05.429.43.38.0								
C 1	0 / 55	70 / 120	215	210	25	95	Steel piston	05.429.41.84.0	05.429.40.01.0	03.139.00.04.0	03.320.09.46.0
C 1	45 / 80		180					05.429.41.54.0			03.320.09.35.0
C 1	32 / 90		05.429.40.61.1					03.139.39.43.0			03.320.09.23.0
BPW 36 K											
	Air bag standard										
B 1	0 / 55	70 / 120	135	210	25	95	Plastic piston	05.429.43.46.0	05.429.41.01.0	05.139.39.53.0	03.280.95.04.0
B 3			180					05.429.43.49.0			
B 3			135					05.429.43.47.0		05.139.39.52.0	
B 1	45 / 80		180					05.429.43.41.0		05.139.39.53.0	03.280.95.03.0
B 3			180					05.429.43.44.0			
B 3			129					05.429.43.58.0			
B 1	80		05.429.43.39.0					05.139.39.53.0		03.280.75.04.0	
C 1	32 / 90	70 / 120	135	210	25	95	Steel piston	05.429.41.04.1	05.429.41.01.0	03.139.39.48.0	03.320.09.23.0
BPW 36-1											
	Air bag standard										
A 1	45 / 80	70 / 120	180	210	25	95	Plastic piston	05.429.43.45.0	05.429.40.05.0	05.139.39.52.0	03.280.95.03.0
C 1	0 / 55	70 / 120	215	210	25	95	Steel piston	05.429.42.01.0	05.429.40.05.0	03.139.00.04.0	03.320.09.46.0
C 3								05.429.41.83.0			
C 1	45 / 80		210					05.429.41.69.0			03.320.09.35.0
C 1	80		210					05.429.41.38.0			03.320.09.33.0
C 1	32 / 90		215					05.429.41.59.0			03.320.09.23.0
BPW 36 Airlight ^{Direct}											
-	-	-	210	190	25	95	-	05.429.42.52.0	05.429.42.51.0	03.139.38.01.0 03.139.00.27.0	

Types **BPW 36** and **BPW 36 K** air bags with steel or aluminium pistons are no longer available in some cases.
Conversion from steel or alloy piston to plastic piston.

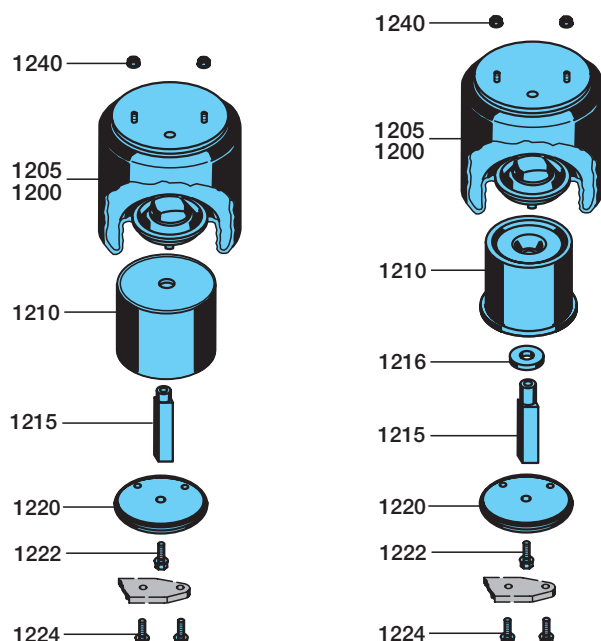
BPW 36	Conversion kit 05.801.21.33.0	V = 0 / 55	for 1 air bag	consisting of rolling piston (plastic), air bag plate and attachment parts.
	Conversion kit 05.801.21.32.0	V = 45 / 80		
	Conversion kit 05.801.21.31.0	V = 80		
BPW 36 K	Conversion kit 05.801.21.30.0	V = 0 / 55	for 1 air bag	
	Conversion kit 05.801.21.29.0	V = 45 / 80		
	Conversion kit 05.801.21.28.0	V = 80		

Conversion see page 94 / 95.
Further executions upon request.

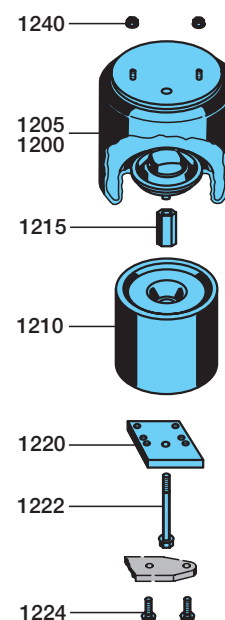
7.3 Conversion from steel piston to plastic piston

Conversion from steel or alloy piston to plastic piston

Air bag with steel or aluminium piston



Air bag with glass fibre-reinforced plastic piston



Types BPW 30 / 30 K / 36 and 36 K air bags with steel or aluminium pistons are no longer available in some cases.

If replacement is required, change over to the air bag with glass fibre-reinforced plastic piston.

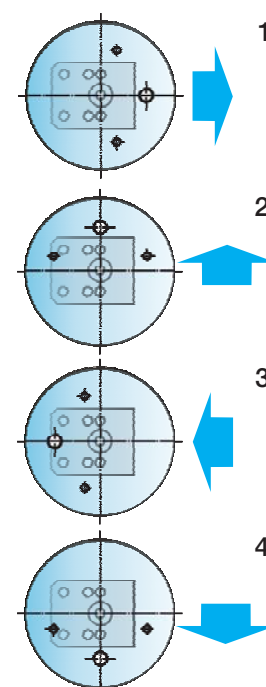
Observe position of upper and lower air bag attachment!

Dismantling:

- Admit as much air into the air bag as possible through the air suspension or rotary disc valve / switching valve. Support the vehicle safely so there is no risk of accident, e.g. place a suitable spacer between the vehicle frame and the trailing arm.
- Vent the air bag.
- Remove the compressed air connection.
- Unscrew top (1240) and bottom (1224) bag attachments and remove the air bag.
- Blow compressed air into the hole for the air connection until the bag is completely unrolled.
- Unscrew and remove locking screw (1222) and take off bottom washer (1220).
- Unscrew and remove square bolt (1215) using an impact driver and remove piston (1210) from the air bag.

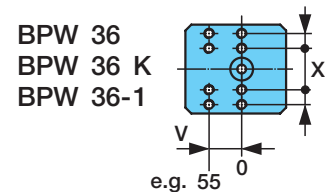
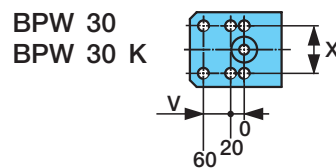
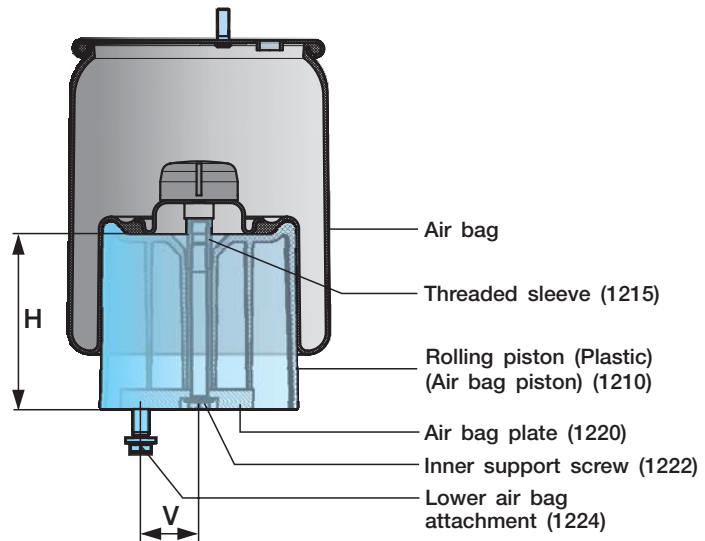
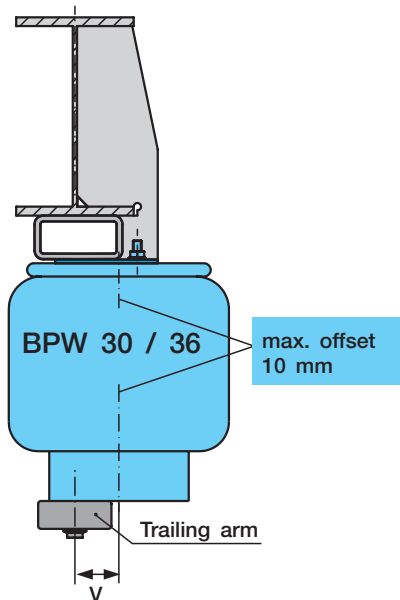
Assembly:

- Screw threaded sleeve (1215) onto the air bag to a tightening torque of 130 Nm.
- Place bottom base plate (1220) into glass fibre-reinforced plastic piston (1210) and screw on loosely using locking screw (1222).
- Align the top and bottom bag attachment points in relation to one another and tighten locking screw (1222) to a tightening torque of 230 Nm (The air bag must not be twisted after installation in the vehicle!)
- Install the air bag into the vehicle, tighten the top and bottom attachments to the corresponding tightening torque. Connect the air connections. Check for leaks.
- Admit air into the air bag, remove the support.



Conversion from steel piston to plastic piston 7.3

Conversion from steel or alloy piston to plastic piston



The maximum lateral offset between the upper and lower attachments must not exceed 10 mm.

			BPW Code no.	Dimension			Application
Item	Designation	Remark		V	X	H	
			BPW 30				
1248	Conversion kit cpl.	05.801.09.73.0	0 / 20 / 60	70	194	BPW 30	
		05.801.09.74.0			149	BPW 30 K	
		BPW 36					
		05.801.21.33.0	0 / 55	70 / 120	188	BPW 36	
		05.801.21.32.0	45 / 80			BPW 36	
		05.801.21.31.0	80			BPW 36	
		05.801.21.30.0	0 / 55		143	BPW 36 K	
		05.801.21.29.0	45 / 80			BPW 36 K	
		05.801.21.28.0	80			BPW 36 K	

Conversion kit cpl. consisting of:

Rolling piston (Air bag piston) (Item 1210)
Lower air bag plate (Item 1220)
Threaded sleeve (Item 1215)
Inner support screw (Item 1222)
Lower attachment screws (Item 1224)

7.4 Spare parts for air bags

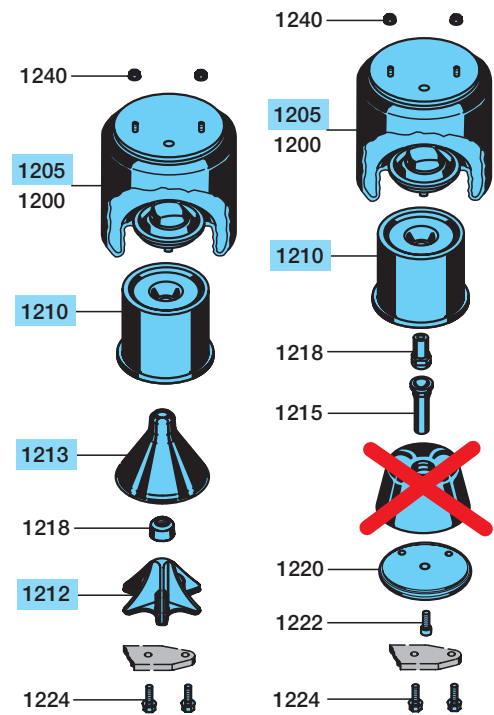
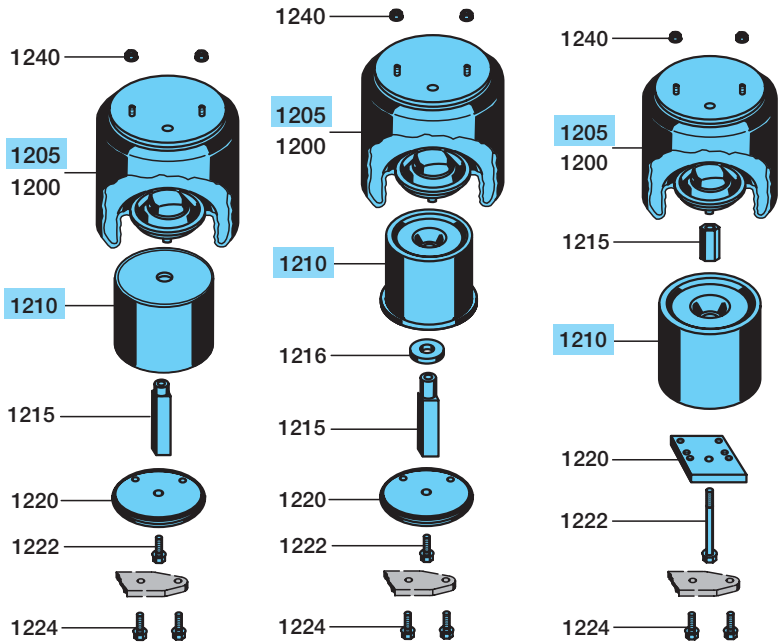
Spare parts for air bags

Air bag standard

Air bag with split piston (Kombi-Air bag)

Air bag with
steel piston

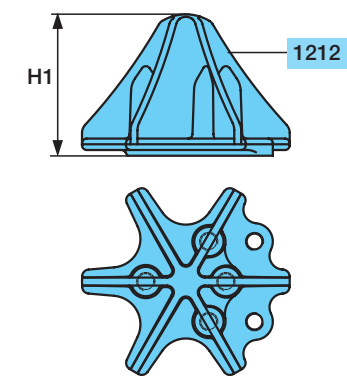
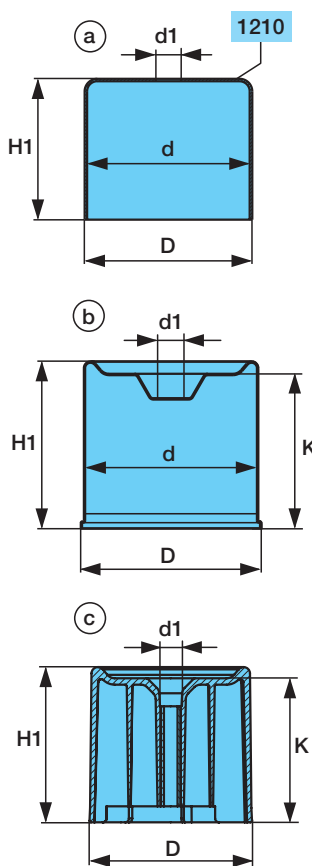
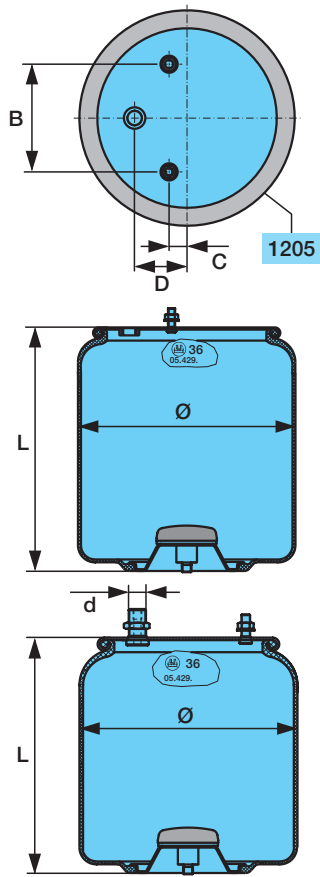
Air bag with
plastic piston



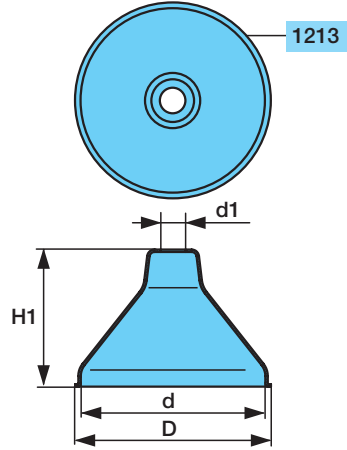
A

B

C



D



Spare parts for air bags 7.4

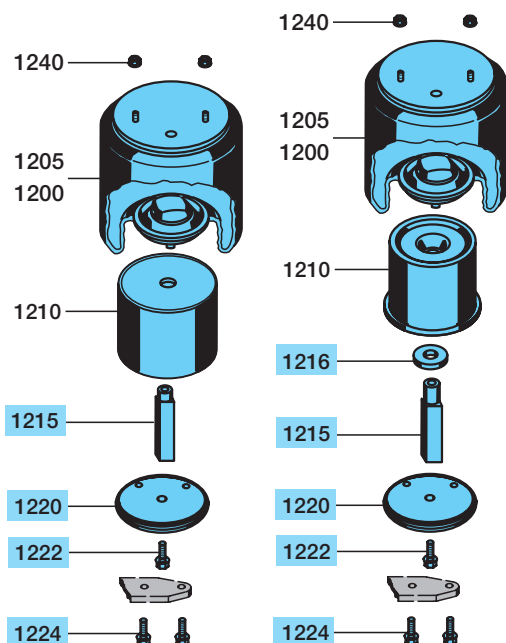
Spare parts for air bags														
Item	Designation	Remark	BPW Code no.	Fig.	Dimension						Designation of air bag			
					Ø	L	d	B	C	D				
			BPW 30..											
1205	Air bag, only		05.429.40.03.0	A	300	520	-	150	25	73	BPW 30	941 MB		
		05.429.41.25.0	M 18				170	0	0	4941 N				
		05.429.42.03.0	-				150	0	73	4962 N				
		05.429.40.91.0	423			-	150	25	73	BPW 30 K	940 MB			
		05.429.41.56.0				M 18	170	0	0		4940 N			
		05.429.41.77.0				M 20	158	0	73		4960 N			
		05.429.42.04.0				-	150	73	4961 N					
		05.429.42.72.0	610			-	150	25	73	BPW 30-1	951 MB			
		BPW 36..												
			05.429.40.01.0	A	360	530	-	210	25	95	BPW 36	881 MB		
			05.429.41.01.0			430					BPW 36 K	4881 MB		
			05.429.40.05.0			610					BPW 36-1	942 MB		
			05.429.41.09.0			789					BPW 36-2	4942 MB		
		BPW 36 Airlight ^{Direct}												
			05.429.42.51.0	-	360	300	-	210	25	95	BPW 36 N	1 DK 32 S		
Item	Designation	Remark	BPW Code no.	Fig.	Dimension					Remark				
					D	d	H1	d1	K					
			BPW 30											
1210	Piston		03.139.00.25.0	B b	201	194	143	16	139	Steel piston				
			03.139.00.22.0	B b	201	194	186	16	172					
			05.139.39.51.0	B c	203	-	149	27	135	Plastic piston				
			05.139.39.50.0	B c	203	-	194	27	180					
		BPW 36												
			03.139.00.04.0	B a	250	244	203	30	-	Steel piston				
			03.139.00.17.0	B a	250	244	293	30	-					
			03.139.39.48.0	B b	251	244	143	30	129					
			05.139.39.53.0	B c	253	-	143	27	129	Plastic piston				
			05.139.39.52.0	B c	253	-	188	27	174					
		BPW 36 Airlight ^{Direct}												
			03.139.38.01.0	-	256	-	91	68	91	Plastic piston				
Glass fibre-reinforced plastic tapers for split air bags D 36 are no longer available. If replacement is required, change over to the BPW 30 combination air bag or the normal air bag!														
Item	Designation	Remark	BPW Code no.	Fig.	Dimension									
					D	d	H1	d1						
			BPW 30 Kombi-Air bag											
1212	Centring cone		03.375.09.38.0	C	-	123	-							
		03.375.09.37.0	168											
1213	Piston		03.139.00.24.0	D	200	193	140	25						
		03.139.00.23.0	200		193	181	25							
		BPW 36 Airlight ^{Direct}												
			03.139.00.27.0	~ D	246	-	86	32						

7.4 Spare parts for air bags

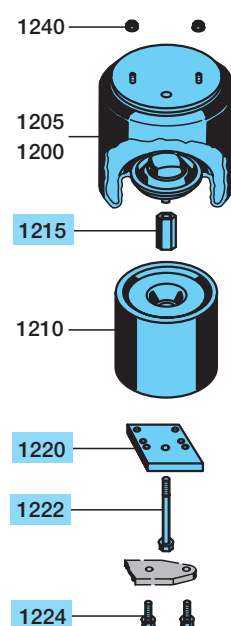
Spare parts for air bags

Air bag standard

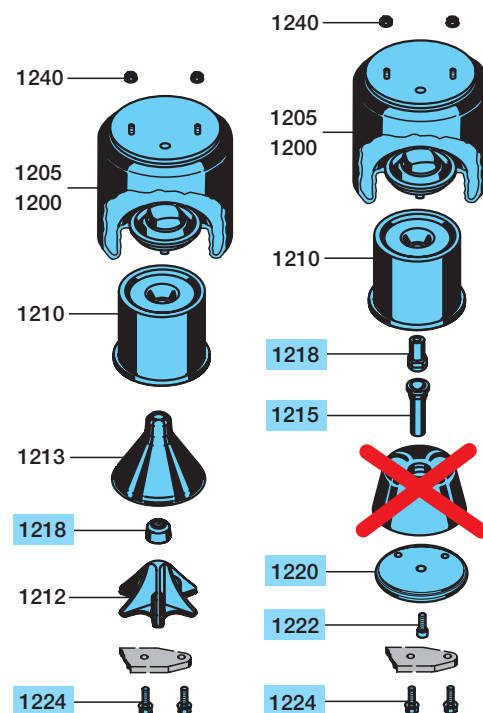
Air bag with steel piston



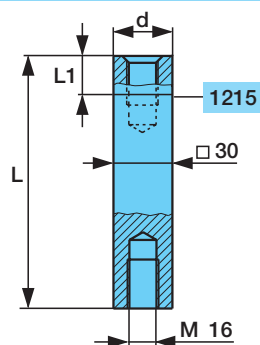
Air bag with plastic piston



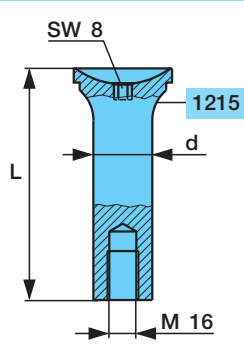
Air bag with split piston (Kombi-Air bag)



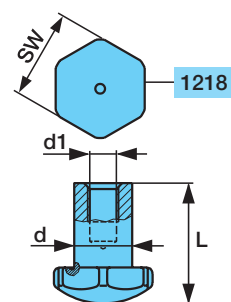
A



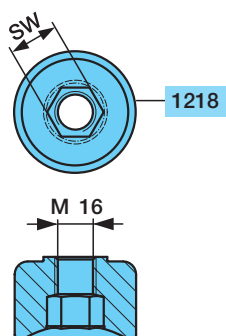
B



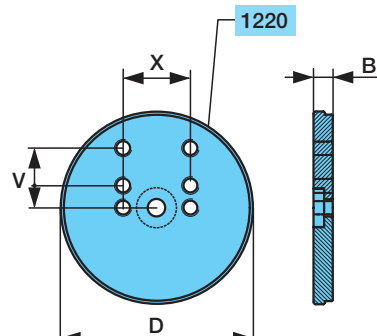
C



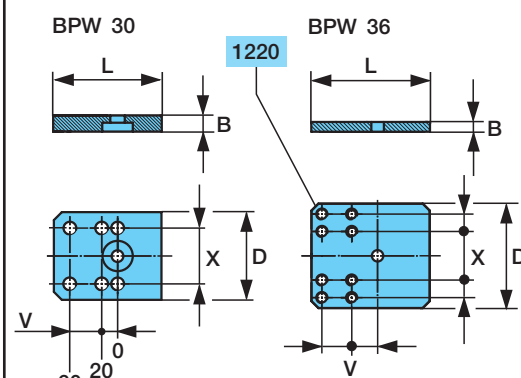
D



E



F



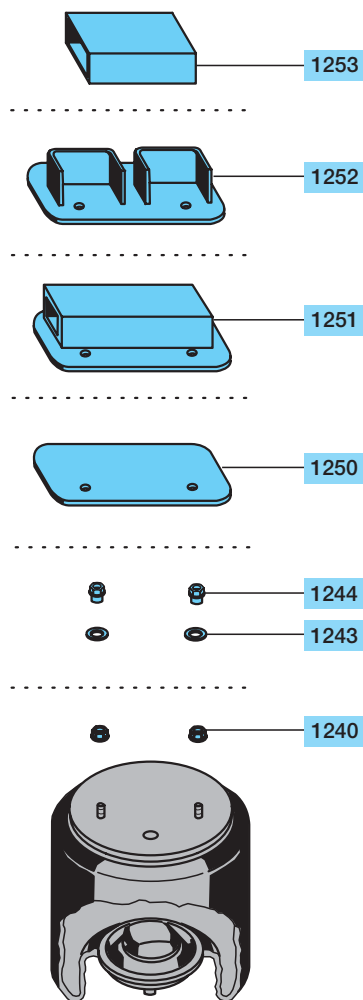
Spare parts for air bags 7.4

Spare parts for air bags

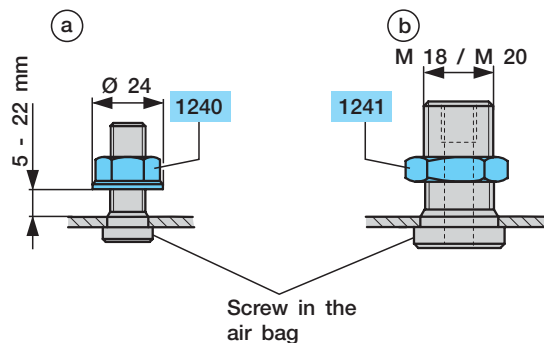
Item	Designation	Remark	BPW Code no.	Fig.	Dimension			Application		
					L	L1	d			
			Steel piston							
1215	Bolt	03.084.46.41.0	A	124	48	30	BPW 30 K			
		03.084.66.36.0		129	17	30	BPW 30 K			
		03.084.46.31.0		129	48	30	BPW 30 K / 36 K			
		03.084.46.40.0		169	48	30	BPW 30 / 30 K			
		03.084.66.30.0		174	17	30	BPW 36			
		03.084.46.28.0		174	48	30	BPW 30 / 30 K / 36 / 36 K			
		03.084.66.31.0		209	17	30	BPW 30 / 36 / 36-1			
		03.084.66.37.0		299	17	30	BPW 36-2			
1216	Ring	03.310.31.43.0	-	Ø 30 / 55 x 5			for bolt L1 = 48			
			Plastic piston							
1215	Threaded sleeve	03.179.03.08.0	-	M 16 x 51 / SW 24			BPW 30 / BPW 36			
			Air bag with split piston (Kombi-Air bag)							
1215	Bolt	03.084.37.09.0	B	73			BPW 36 K			
		03.084.37.07.0		118			BPW 36			
1218	Bolt	03.084.27.09.0	C	Ø 30 x 62 / SW 46			BPW 36 / BPW 36 K			
1218	Nut	03.266.02.02.0	D	M 16 / SW 19			BPW 30 / BPW 30 K			
			BPW 36 Airlight ^{Direct}							
1218	Shaped part	03.001.35.01.0	-	Ø 13 / 20 / 59 x 25 M 12 x 23-8.8			BPW 36 N			
1219	Screw	03.340.11.19.0								
Item	Designation	Remark	BPW Code no.	Fig.	Dimension					Application
					V	X	B	D	L	
			BPW 30							
1220	Plate		03.280.95.02.0	F	0/20/60	70	14	110	135	BPW 30 / BPW 30 K GFK
1220	Washer		03.320.09.22.0	E	20	70	20	200	-	BPW 30 / BPW 30 K
			BPW 36							
1220	Plate	03.280.95.04.0	F	0/55	70/120	20	150	170	BPW 36 / BPW 36 K GFK	
		03.280.95.03.0		45/80		20	150	170		
		03.280.75.04.0		80		14	150	170		
1220	Washer	03.320.09.49.0	E	45/80	70/120	20	249	-	BPW 36 / BPW 36 K	
		03.320.09.35.0		45/80		20	250	-		
		03.320.09.33.0		80		70	14	250		-
		03.320.09.23.0		90		120	20	250		-
Attachment central bolt with steel piston										
1222	Locking screw	02.5070.98.91	M 16 x 30							
		02.5070.94.91	M 16 x 35							
Central screw with plastic piston										
1222	Screw	03.340.12.24.0	M 16 x 115			BPW 30 K / BPW 36 K				
		03.340.12.23.0	M 16 x 160			BPW 30 / BPW 36				
Attachment trailing arm - air bag										
1224	Locking screw	02.5070.97.00	M 16 x 55							
		02.5070.95.00	M 16 x 65							
		02.5070.96.00	M 16 x 75							

7.5 Upper air bag attachment / spacers

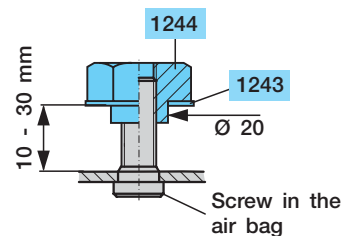
Upper air bag attachment / spacers



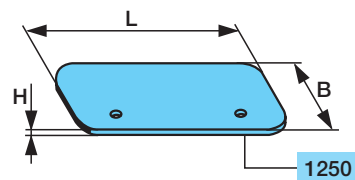
A



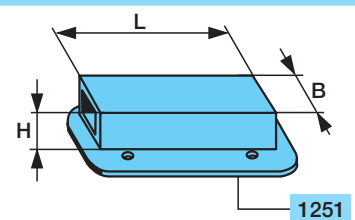
B



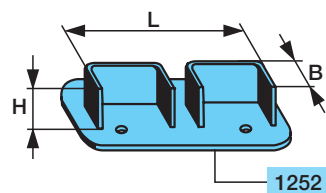
C



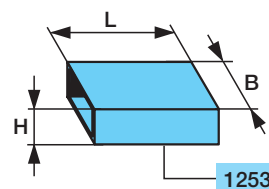
D



E



F



Upper air bag attachment / spacers 7.5

Upper air bag attachment / spacers								
Item	Designation	Remark	BPW Code no.	Fig.	Dimension		Application	
Upper air bag attachment								
	Steel frame							
1240	Lock nut		02.5273.33.80	A a	M 12		Steel frame 5 - 22 mm	
	Steel frame / integrated air connection in stud bolt							
1241	Hexagon nut		02.5230.18.00	A b	M 18		Steel frame 5 - 22 mm	
			02.5201.76.06		M 20			
	Alloy frame							
1243	Spring washer		02.5403.20.90	B	B 20 / 137		Alloy frame 10 - 30 mm	
1244	Hexagon nut		03.260.11.01.0		M 12 / Ø 20 / SW 30			
Spacers								
Item	Designation	Remark	BPW Code no.	Fig.	Dimension			Application
					H	B	L	
1250	Plate		03.281.47.12.0	C	5	140	300	BPW 30
			03.285.47.24.0		5	200	360	BPW 36
1251	Support		05.189.07.33.0	D	40	120	240	BPW 30
			05.189.06.93.0		60			
			05.189.07.34.0		100			
			05.189.07.11.0		40	120	300	BPW 36
			05.189.06.57.0		60			
			05.189.07.02.0		100			
1252	Support		05.189.07.29.0	E	40	60	270	BPW 30
			05.189.07.30.0		60			
			05.189.07.28.0		100			
			05.189.07.88.0		40	60	300	BPW 36
			05.189.07.89.0		60			
			05.189.07.90.0		100			
1253	Square tube		03.391.69.24.0	F	60	120	200	BPW 30
			03.391.69.42.0		60	140	200	
			03.391.53.72.0		100	120	200	
			03.391.69.18.0		80	140	120	BPW 30 / BPW 36
			03.391.52.80.0		100	120	120	

8 Shock absorbers

General

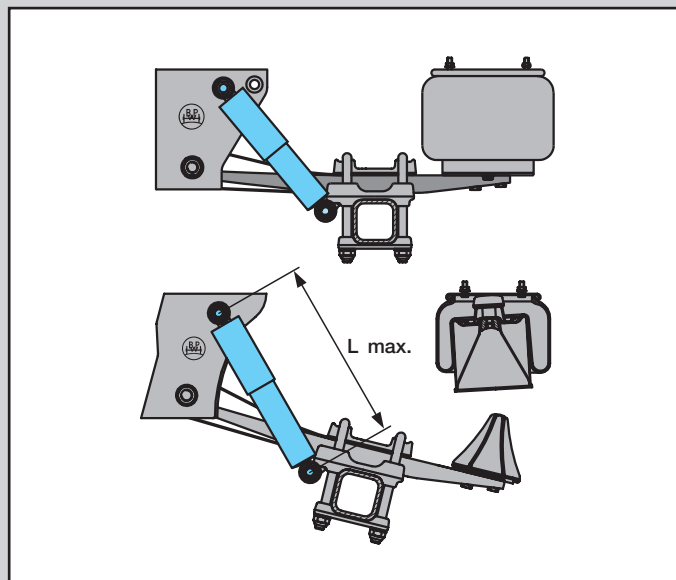
BPW Shock absorber

The shock absorber reduces vibration in the vehicle body and ensures greater driving comfort and road safety. This is because the wheels stay in contact with the road and dynamic wheel load fluctuations are reduced.

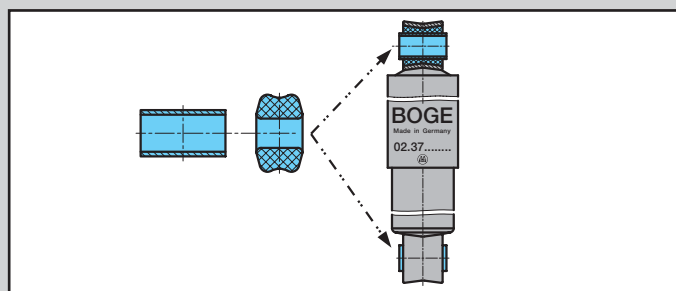
BPW uses various types of shock absorber to guarantee the best possible damping in each case.

High-volume BPW shock absorbers are adapted to the vehicle, the overall height and the range of applications.

Using the split air bag (Kombi-Air bag + AirlightDirect) with air suspensions, the shock absorber is fitted with an end stop in order to avoid any further axle travel.



The rubber bushes of BPW shock absorbers (BOGE-Shock absorber) can be replaced.

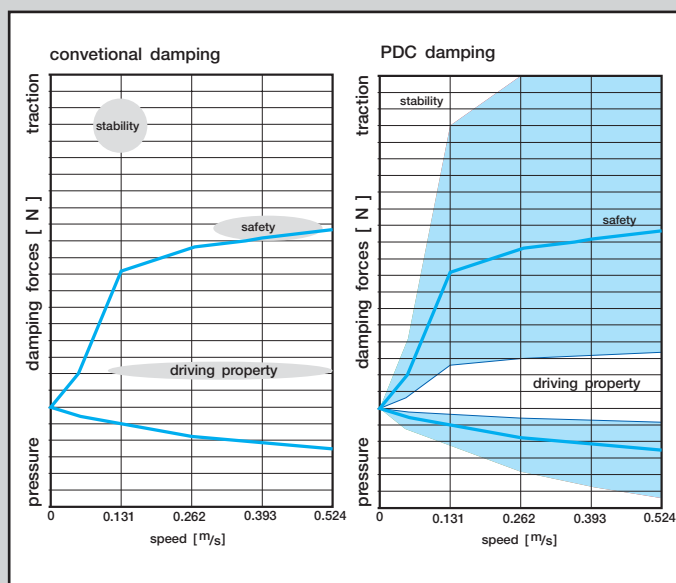


PDC

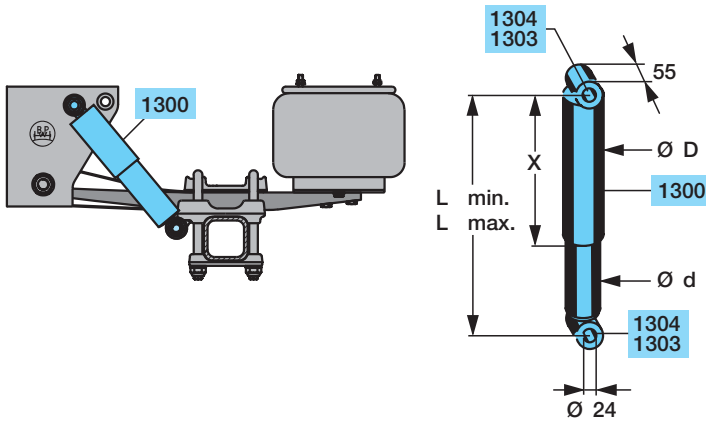
The BPW PDC (Pneumatic Damping Control) shock absorber improves driving properties and comfort – whatever the load.

The best damping, better road safety, lower maintenance costs – given all these reasons, you don't need to think long and hard before fitting or retrofitting BPW air suspension systems with PDC.

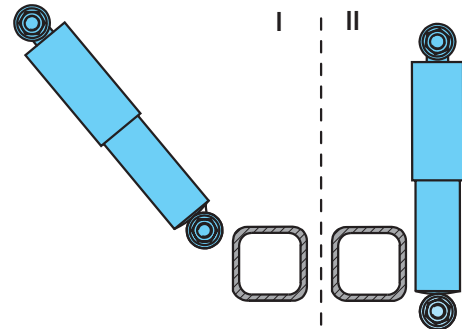
 When using PDC shock absorbers, a shim must be installed between the support or spring seats and each PDC, also shorter lock nuts must be used.



Shock absorbers



Mounting position



				Dimensions					N = Newton at 13 cm/s	N = Newton at 52 cm/s
Item	Designation	Mounting position	BPW Code no.	L min.	L max.	X	D	d		
Shock absorber standard										
1300	Shock absorber	I	02.3722.79.00	287	412	204	75	65	6300 / 1740	17000 / 3000
		I	02.3702.70.00 ¹⁾	292	432	214	82	72	6300 / 1600	17000 / 3000
		I	02.3702.52.00	326	496	225	82	72	6300 / 1740	17000 / 3000
		I	02.3722.14.00	326	496	235	83	73	10500 / 2500	22500 / 4500
		I	02.3722.04.00	326	496	235	82	72	6300 / 1740	17000 / 3000
		I	02.3702.92.00	351	541	335	82	72	8000 / 2500	18000 / 5000
		I	02.3702.20.00	426	696	325	82	72	8000 / 1290	16000 / 2150
		I II	02.3702.51.00	430	700	320	75	66	3800 / 500	8000 / 800
		II	02.3702.67.00	466	766	380	75	66	3750 / 540	10500 / 1000
		I II	02.3702.60.00 ²⁾	475	795	390	82	72	6300 / 1600	17000 / 3000
		II	02.3702.18.00	475	800	390	82	72	-	10200 / 780
		II	02.3722.62.00	536	906	440	75	66	3750 / 540	10500 / 1000

¹⁾ Special design

²⁾ Reinforced

PDC Shock absorber (Pneumatic Damping Control)

1300	Shock absorber	I	02.3722.63.00	336	501	210	92	80	for air bag BPW 30	
		I	02.3722.64.00	336	501	210	92	80	for air bag BPW 36	

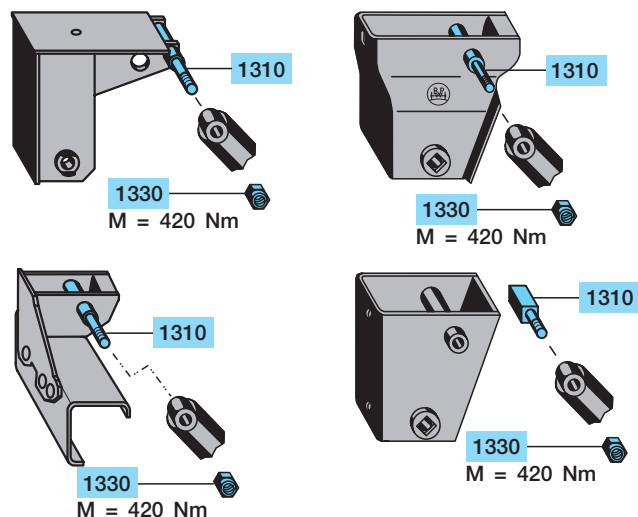
Rubber bushes for BOGE-shock absorber

1303	Bush		02.0316.21.00	only for BOGE-shock absorber						
1304	Rubber		02.2805.01.00							

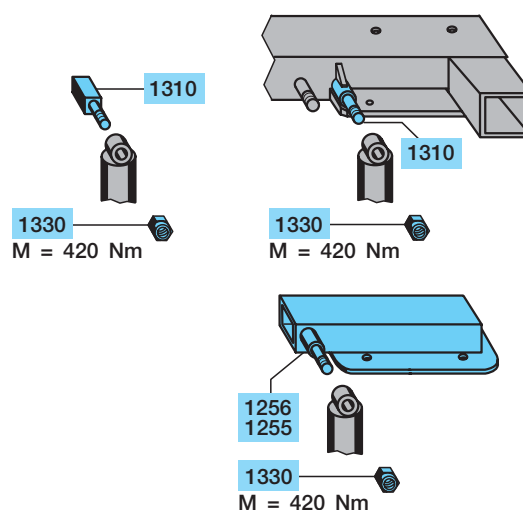
8.2 Upper shock absorber attachments

Upper shock absorber attachment with threaded bolts

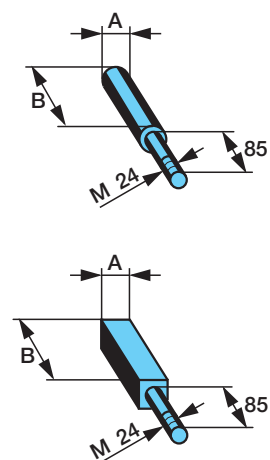
Shock absorber front



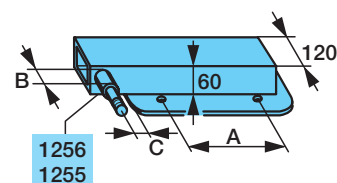
Shock absorber rear



Item	Designation	Remark	BPW Code no.	Dimension	A	B
			Shock absorber attachment on threaded bolts, steel hanger bracket / integrated support / frame			
1310	Threaded bolt (steel) (welded to hanger bracket, integrated support or frame)	03.177.24.36.0	● 36	165		
		03.177.24.30.0	● 40	140		
		03.177.24.53.0	● 40	147		
		03.177.24.29.0	● 40	165		
		03.177.24.31.0	● 40	188		
		03.177.24.37.0	■ 40	82		
		03.177.24.38.0	■ 40	115		
		03.177.24.17.0	■ 40	140		
		03.177.24.52.0	■ 40	167		
		03.177.24.49.0	■ 40	207		
			Shock absorber attachment on threaded bolts, stainless steel hanger bracket			
1310	Threaded bolt (stainless steel) (welded to hanger bracket)	03.177.24.64.0	● 40	130		
		03.177.24.64.0	● 40	145		
		03.177.24.65.0	● 50	130		
1330	Lock nut	02.5220.74.12	VM 24 / 980-10			

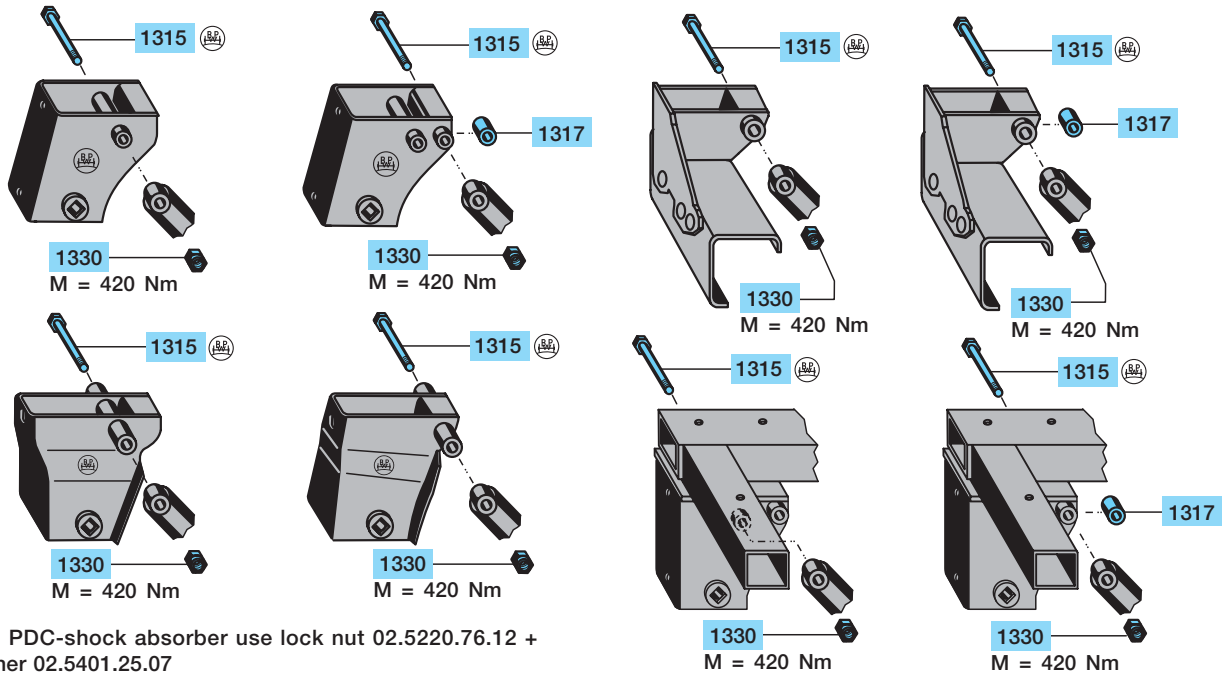


			Shock absorber attachment on threaded bolts, shock absorber rear, attachment to spacer for air bag			
			Item 1255 left	Item 1256 right	A	B
1255	Support, left	05.189.06.35.0	05.189.06.34.0	150	57	100
1256	Support, right	05.189.06.25.0	05.189.06.26.0	210	37	45
		05.189.12.55.0	05.189.12.56.0	210	37	45
		05.189.07.97.0	05.189.07.96.0	210	37	70
		05.189.05.55.0	05.189.05.54.0	290	12	-
		05.189.05.55.0	05.189.05.54.0	290	12	-
1330	Lock nut	02.5220.74.12	VM 24 / 980-10			



Upper shock absorber attachment with screws

Shock absorbers next to hanger bracket
Steel hanger bracket / integrated support / frame



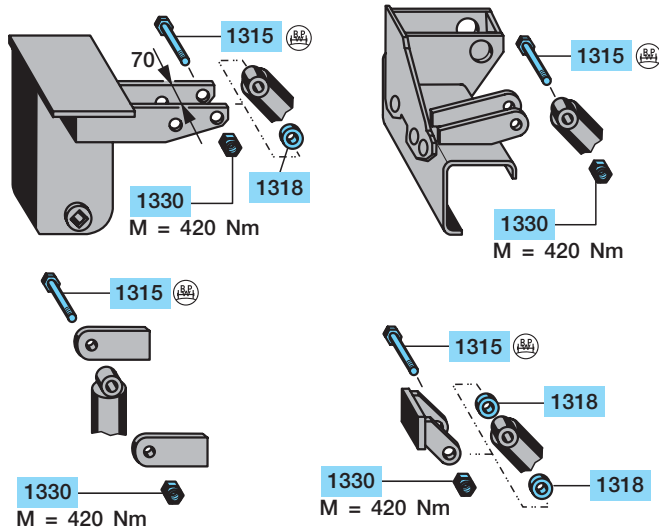
Item	Designation	Remark	BPW Code no.	Dimension	
Shock absorbers next to hanger bracket, steel hanger bracket					1) inside dimension of the hanger bracket = 55 mm 2) inside dimension of the hanger bracket = 67 mm
1315	Hexagon screw	L = 144 L = 155 L = 187	03.340.14.23.0 03.340.14.19.0 03.340.14.12.0	M 24 x 230 M 24 x 240 M 24 x 275	
1317	Spacer	e.g.	03.200.75.62.0 03.200.75.65.0	Ø 25 / 42 x 55 1) Ø 25 / 42 x 67 2)	
1330	Lock nut *		02.5220.74.12	VM 24 / 980-10	

Shock absorber above the trailing arm, shock absorber at hanger bracket centre					
1315	Hexagon screw	L = 72 L = 80 L = 84 L = 110 L = 125 L = 187	03.340.14.15.0 03.340.14.16.0 03.340.14.20.0 03.340.14.24.0 03.340.14.22.0 03.340.14.23.0	M 24 x 100 M 24 x 110 M 24 x 120 M 24 x 140 M 24 x 160 M 24 x 230	
1318	Ring (2x)	B = 67 B = 90	03.310.30.60.0 03.310.31.38.0	Ø 25 / 38 x 6 Ø 25 / 42 x 17.5	
1330	Lock nut		02.5220.74.12	VM 24 / 980-10	

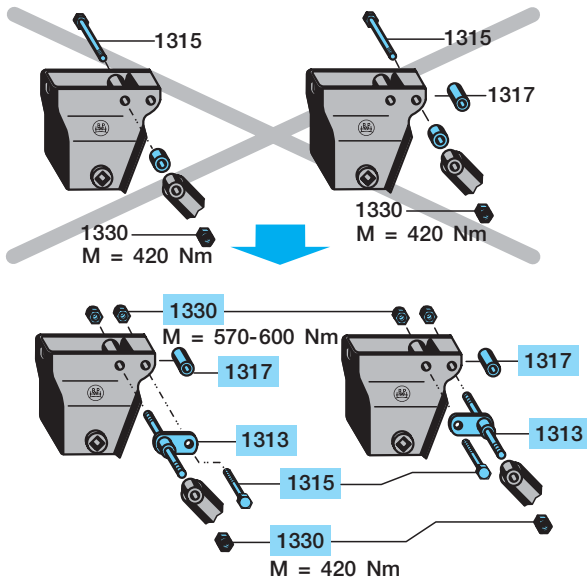
8.2 Upper shock absorber attachments

Upper shock absorber attachment with screws

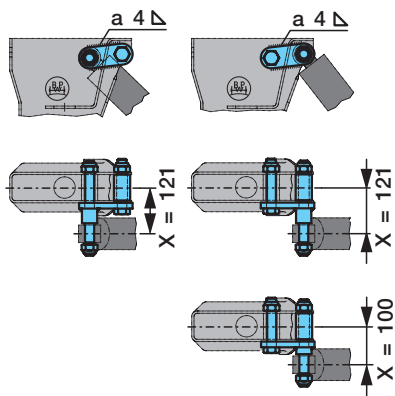
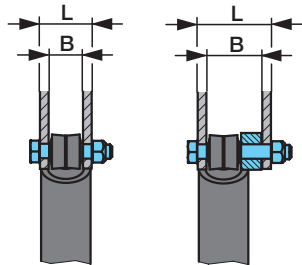
Shock absorber attachment between plates,
steel hanger bracket / integrated support / frame



Repair solution for shock absorber attachment
with retracted supports

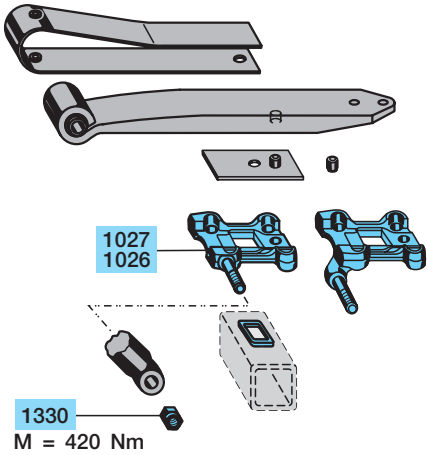
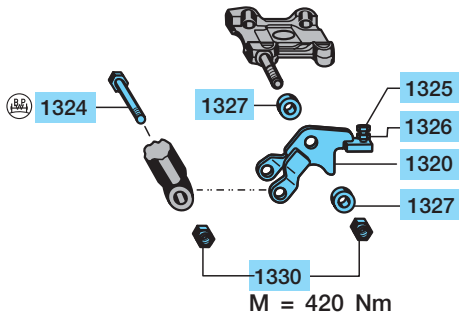


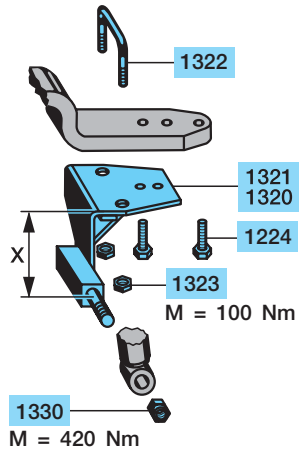
Item	Designation	Remark	BPW Code no.	Dimension	B	L
			Shock absorber attachment between plates, steel hanger bracket / integrated support / frame			
1315	Hexagon screw		03.340.14.15.0	M 24 x 100	55	75
			03.340.14.20.0	M 24 x 120	70	90
			02.5023.47.82	M 24 x 130	76	96
1318	Ring (1x)		03.310.31.21.0	Ø 25 / 42 x 15	70	90
	Ring (2x)		03.310.31.40.0	Ø 25 / 42 x 10	76	96
1330	Lock nut		02.5220.74.12	VM 24 / 980-10		
			Repair solution for shock absorber attachment with retracted supports			
1312	Repair kit (Item 1313, 1315, 1317, 1330)		05.801.64.28.0	X = 100		
			05.801.64.25.0	X = 121		
1313	Support		05.189.13.27.0	X = 100		
			05.189.13.22.0	X = 121		
1315	Screw		02.5023.47.82	M 24 x 130 / 931-8.8		
1317	Spacer		03.200.75.68.0	Ø 28 / 42 x 67		
1330	Lock nut		02.5220.74.12	VM 24 / 980-10		



8.3 Lower shock absorber attachments

Lower shock absorber attachment

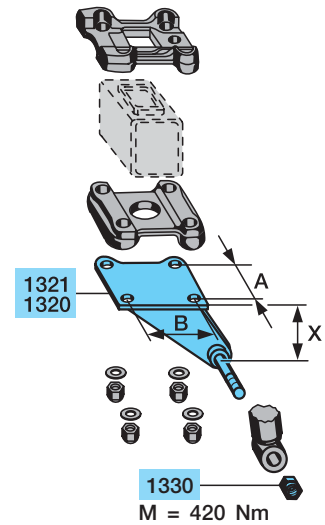
Item	Designation	Remark	BPW Code no. Dimension	
			O / SL / AL attachment to spring seats with threaded bolt, shock absorber front	
1026	Spring seat, right		see page 19 - 23	
1027	Spring seat, left		see page 19 - 23	
1330	Lock nut *		02.5220.74.12 VM 24 / 980-10	
* With PDC-shock absorber use lock nut 02.5220.76.12 + washer 02.5401.25.07				
				
			OM Shock absorber front, shock absorber attachment to adjustable support	
1320	Support		05.189.04.71.0	
1324	Hexagon screw		03.340.14.15.0 M 24 x 100	
1325	Hexagon screw		02.5026.33.80 M 16 x 35 / 933	
1326	Hexagon nut		02.5205.07.04 M 16 / 936	
1327	Spacer		03.200.74.44.0 Ø 25 / 42 x 22	
1330	Lock nut		02.5220.74.12 VM 24 / 980-10	
				

		OM / SLM Shock absorber rear		
1224	Locking screw	see page 99		
		Item 1320 right	Item 1321 left	X
1320	Support, right	05.189.05.65.0	05.189.05.64.0	100
	Support, left	05.189.05.66.0	05.189.05.67.0	150
		05.189.05.92.0	05.189.05.91.0	160
1322	Spring U-bolt	03.138.29.02.0		
1323	Lock nut	02.5220.31.12 VM 16 x 1.5 / 980-10		
1330	Lock nut	02.5220.74.12 VM 24 / 980-10		
				

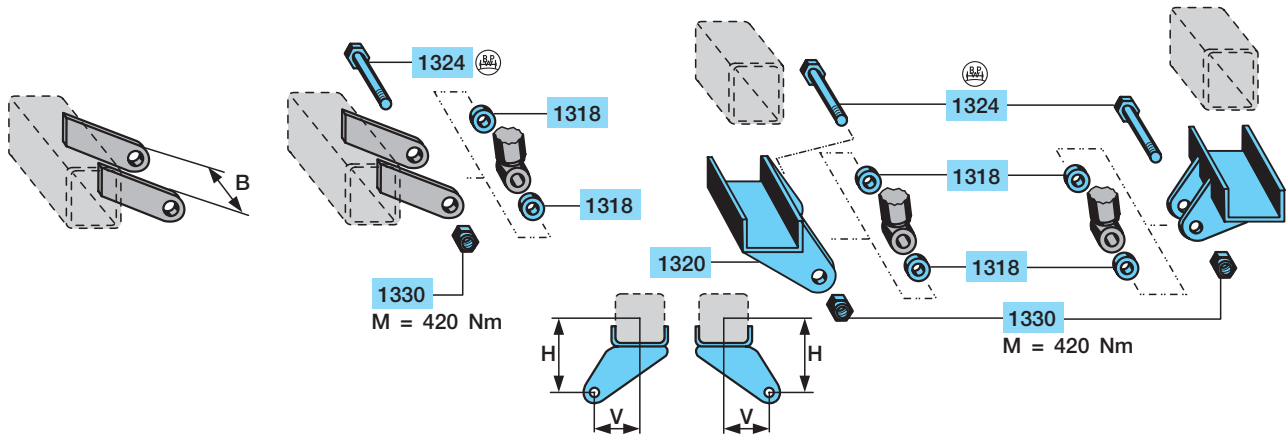
Lower shock absorber attachments 8.3

Lower shock absorber attachment

Item	Designation	Remark	BPW Code no. Dimension					
			OM / SLM / ALM Shock absorber rear, attachment to support with threaded bolt					
			Item 1320 right	Item 1321 left	X	A	B	
1320	Support, right		05.189.13.16.0	05.189.13.15.0	44.5	125	150	
1321	Support, left		05.189.13.18.0	05.189.13.17.0	44.5	125	180	
			05.189.13.30.0	05.189.13.29.0	92	125	180	
			05.189.13.20.0	05.189.13.21.0	126	125	150	
1330	Lock nut		02.5220.74.12	VM 24 / 980-10				



Lower shock absorber attachment between plates



Item	Designation	BPW Code no.					Dimension
		B = 56	B = 75	B = 86	B = 90	B = 100	
1311	Repair kit cpl. (Item 1318 - 1330)	-	-	-	-	-	○ 127 □ 120 □ 150
1318	Ring	-	03.310.31.40.0	-	-	-	Ø 25/42x10 Ø 25/42x15 Ø 25/42x17.5
	Spacer	-	-	-	03.310.31.38.0	-	Ø 25/42x22
1320	Support						
	H 190 / V 150	-	-	05.189.06.85.0	-	-	○ 127
	H 200 / V 160	-	-	-	05.189.07.15.0	-	□ / ■ 120
	H 185 / V 120	-	-	-	05.189.10.51.0	-	■ 120
	H 217 / V 125	-	-	-	05.189.10.92.0	-	■ 120
	H 245 / V 120	-	-	-	05.189.10.44.0	-	■ 120
	H 185 / V 160	-	-	-	05.189.07.16.0	-	□ / ■ 150
1324	Hexagon screw	02.5023.46.80	-	-	-	-	M 24x110
		-	03.340.14.24.0	03.340.14.24.0	03.340.14.24.0	-	M 24x140
		-	-	-	-	02.5023.91.80	M 24x150
1330	Lock nut	02.5220.74.12	VM 24 / 980-10				

8.3 Lower shock absorber attachments

Lower shock absorber attachment

Item	Designation	Remark	BPW Code no.	Dimension	
			O / SL / AL Attachment to spring plate above the trailing arm, spring U-bolts mounted from above		
1035	Spring plate	see page 31			
1324	Hexagon screw		03.340.14.15.0	M 24 x 100-8.8	
1330	Lock nut		02.5220.74.12	VM 24 / 980-10	
			O / SL / AL Attachment to spring plate above the trailing arm, spring U-bolts mounted from below		
1032	Spring plate	see page 33 / 35			
1324	Hexagon screw		03.340.14.15.0	M 24 x 100-8.8	
1330	Lock nut		02.5220.74.12	VM 24 / 980-10	
			DLU Attachment to spring seat above the trailing arm with screw,, spring U-bolts mounted from above		
1026	Spring seat	see page 21			
1324	Hexagon screw		03.340.14.15.0	M 24 x 100-8.8	
1330	Lock nut		02.5220.74.12	VM 24 / 980-10	
			O / SL / AL Attachment to spring plate with threaded bolt welded on, spring U-bolts mounted from above		
1035	Spring plate, right	see page 31			
1036	Spring plate, left	see page 31			
1330	Lock nut		02.5220.74.12	VM 24 / 980-10	

Lower shock absorber attachment

Item	Designation	Remark	BPW Code no. Dimension	
O / SL / AL Attachment to spring plate with threaded bolt welded on, spring U-bolts mounted from below				
1032	Spring plate		see page 33	
1330	Lock nut		02.5220.74.12 VM 24 / 980-10	
OT / SLU / ALU Attachment to spring plate with threaded bolt, spring U-bolts mounted from above				
1032	Spring plate, right		see page 37	
1033	Spring plate, left		see page 37	
1330	Lock nut		02.5220.74.12 VM 24 / 980-10	
OT / SLU / ALU Attachment to spring plate with screw, spring U-bolts mounted from above				
1032	Spring plate		see page 37	
1315	Hexagon screw		03.340.14.23.0 M 24 x 230-8.8	
1330	Lock nut		02.5220.74.12 VM 24 / 980-10	

8.3 Lower shock absorber attachments

Lower shock absorber attachment

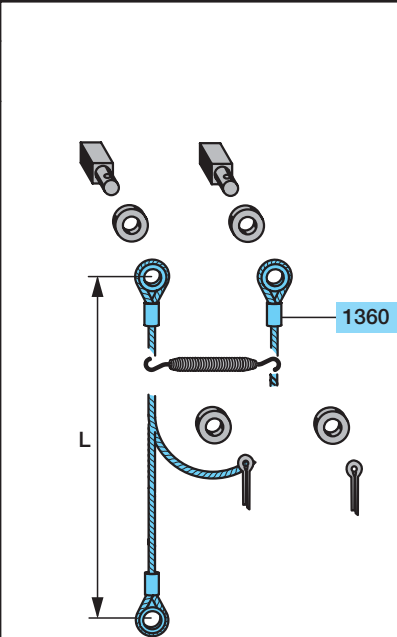
Item	Designation	Remark	BPW Code no. Dimension	
OT / SLU / ALU Attachment to spring plate with threaded bolt welded on, spring U-bolts mounted from below				
1035	Spring plate, left		see page 31	
1036	Spring plate, right		see page 31	
1330	Lock nut		02.5220.74.12 VM 24 / 980-10	
OT / SLU / ALU Attachment to spring plate with screw, spring U-bolts mounted from below				
1035	Spring plate, left		upon request	
1036	Spring plate, right		upon request	
1315	Hexagon screw		02.5023.42.80 M 24 x 240	
1330	Lock nut		02.5220.74.12 VM 24 / 980-10	
OT / SLU / ALU Attachment to spring plate with threaded bolt screwed on, spring U-bolts mounted from below, shock absorber front				
1035	Spring plate		see page 31	
1168	Lock nut		03.260.15.01.0 M 30	
1324	Threaded bolt		03.177.24.22.0 M 24 / M 30 / L = 260	
1327	Spacer *		03.200.73.53.0 Ø 32 / 38 x 68	
1330	Lock nut		02.5220.74.12 VM 24 / 980-10	
	* not applicable with U-stabilizer			

Lower shock absorber attachments 8.3

Lower shock absorber attachment

Item	Designation	Remark	BPW Code no.	Dimension	
OT / SLU / ALU Attachment to spring plate with threaded bolt screwed on, spring U-bolts mounted from below, shock absorber rear					
1035	Spring plate		see page 31		
1168	Lock nut		03.260.15.01.0	M 30	
1324	Threaded bolt		03.177.24.39.0	M 24 / M 30 / L = 290	
1327	Spacer		03.200.73.53.0	Ø 32 / 38 x 68	
1330	Lock nut		02.5220.74.12	VM 24 / 980-10	
SL / AL Attachment to spring plate with screw, spring U-bolts mounted from below					
1035	Spring plate		see page 35		
1315	Hexagon screw	B 187 B 144	03.340.14.12.0	M 24 x 275-8.8	
			02.5023.42.82	M 24 x 240-8.8	
1330	Lock nut		02.5220.74.12	VM 24 / 980-10	

9 Check straps

Check straps					
Item	Designation	BPW Code no.		Dimension	
		Check straps, standard	Check straps, PVC coated	L	
1360	Check strap	05.327.14.15.0	-	730	
		05.327.14.13.0	-	865	
		05.327.14.04.0	05.327.14.37.0	940	
		05.327.14.05.0	05.327.14.30.0	1010	
		05.327.14.06.0	05.327.14.31.0	1060	
		05.327.14.03.0	05.327.14.25.0	1120	
		05.327.14.02.0	05.327.14.24.0	1160	
		05.327.14.01.0	05.327.14.23.0	1220	
		05.327.14.09.0	05.327.14.26.0	1270	
		05.327.14.08.0	05.327.14.29.0	1330	
		05.327.14.19.0	05.327.14.32.0	1350	
		05.327.14.14.0	05.327.14.28.0	1390	
		05.327.14.10.0	05.327.14.35.0	1415	
		05.327.14.07.0	05.327.14.27.0	1455	
		05.327.14.11.0	05.327.14.38.0	1500	
		05.327.14.12.0	-	1550	
		05.327.14.18.0	05.327.14.33.0	1570	
		05.327.14.20.0	05.327.14.34.0	1685	
		05.327.14.21.0	-	1775	

Check strap attachments 9.1

Check strap attachment with hexagon nuts

SC = Spring centre			O / SL / AL		OR / SLR / ALR (with frame)	
Item	Designation	Remark	BPW Code no. Dimension		BPW Code no. Dimension	
1362	Threaded bolt		03.177.25.05.0	M 30 / □ 40 x 70	-	
			03.177.25.06.0	M 30 / □ 40 x 110	-	
1363	Screw	SC 900 - 980 SC 1100 - 1300	-		03.340.72.21.0	M 30 x 210
			-		03.340.75.22.0	M 30 x 165
1365	Spacer	SC 900 - 980	-		03.200.74.38.0	Ø 34 / 54 x 48
1368	Shaped plate		03.161.16.01.0		03.161.16.01.0	
1370	Hexagon nut		02.5205.17.04	M 30 / 936-04	02.5205.17.04	M 30 / 936-04
1375	Return spring ¹⁾		05.397.26.03.0	Ø 26 / 2.6 x 148	05.397.26.03.0	Ø 26 / 2.6 x 148

Check strap attachment with split pins

SC = Spring centre			O / SL / AL		OR / SLR / ALR (with frame)	
Item	Designation	Remark	BPW Code no. Dimension		BPW Code no. Dimension	
1362	Bolt		03.084.47.11.0	Ø 30 / □ 40 x 70	-	
1363	Screw	SC 900 - 980 SC 1100 - 1300	-		03.084.76.37.0	M 30 x 218
			-		03.084.76.36.0	M 30 x 170
1365	Spacer	SC 900 - 980	-		03.200.74.38.0	Ø 34 / 54 x 48
1368	Washer		02.5401.31.01	31 / 125	02.5401.31.01	31 / 125
1371	Split pin		02.6201.61.01	6.3 x 45 / 94	02.6201.61.01	6.3 x 45 / 94
1375	Return spring ¹⁾		05.397.26.03.0	Ø 26 / 2.6 x 148	05.397.26.03.0	Ø 26 / 2.6 x 148
¹⁾ not applicable if check strap length < 1120 mm						