

The most important installation instructions

Installation instructions for BPW air suspension hanger brackets

BPW Air suspension hanger brackets

Positioning aid
in the middle of the support above the spring pivot bolt eye

Welding zone
Gusset plate welding zone

Welding method:

- Inert gas welding
Weld wire quality G 4 Si 1 (DIN EN 440)
- Manual arc welding
Rod electrodes E 46 2 (DIN EN 499)

Mechanical quality values must be equivalent to basic material S 420 or S 355 J 2
Weld thickness a 5 (DIN EN ISO 5817)
Avoid end cavities and undercutting!

Important:
Gusset plates should not be welded to the hanger bracket when a trailing guide is assembled, as the wearing plates between the trailing guide and the hanger bracket can be damaged through the heat which is generated.
Bolted on gusset plates are to be used in this case.

Note:

- The guide links, air bag beams, spring U-bolts, air bags and plastic pipings must be protected against sparks and weld splashes during all welding work.
- The earth terminal must under no circumstances be attached to the guide links, air bag beams, spring U-bolts or hubs.
- No welding at guide links or air bag beams!
- It is not permitted for the hanger brackets to be heated for straightening work!

Recommendations for gusset plates

Gusset plates for a vehicle frame that is subject to longitudinal torsion (platform vehicles).

Gusset plates for a vehicle frame that is torsionally stiff (road tankers, bulk powder tankers, vans).

Bolted on gusset plates

Cover contact surfaces before painting / galvanizing

Contact surfaces for bolted connection parts:

- Coat thickness for painting max. 30 µm
- Coat thickness for hot-dip galvanizing max. 100 µm

Outer

Inner

Installation instructions for BPW air suspension modules

Track correction

Make sure the inner and outer connecting linkages on each hanger bracket are adjusted symmetrically!

Spring pivot bolt bearing

Standard spring pivot bolt bearing

Attention:
Make sure that the adjusting plates are correctly seated on the guides (arrows) of air suspension hanger bracket!

The square lock-bush on the spring pivot bolt head (torsion protection) must be seated in the slot of the adjusting plate.

Tightening torques

Side axle lift

Two-sided axle lift

Middle axle lift

Item	Area	Attachment	Thread	Tightening torque (thread lightly greased)
1	Spring pivot bolt bearing	Spring pivot bolt	M 24	650 Nm (605 - 715 Nm)
2	Shock absorber	Spring pivot bolt / Gusset plate	M 18 x 1,5	420 Nm (390 - 460 Nm)
3		Upper and lower attachment	M 24	530 Nm (495 - 585 Nm)
4	Air bag	Attachment top cover	M 12	66 Nm
5		Bottom attachment	M 16	230 - 300 Nm
6		Central bolt	M 16	300 Nm
7	Two-sided lift device	Attachment diaphragm cylinder	M 16	180 - 210 Nm
8		Attachment shaped plate / support	M 12	75 Nm
9		Attachment shaped part at guide link	M 10	50 Nm
10	Side axle lift device	Attachment roller at lever	M 20	350 Nm
11	Middle axle lift device	Spring pivot bolt	M 30	900 Nm (840 - 990 Nm)
12		Attachment support	M 16	230 Nm