

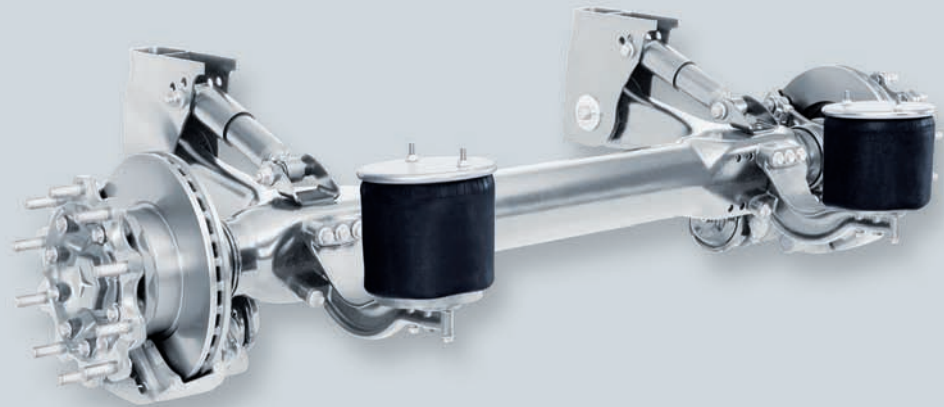


DCA FAMILY

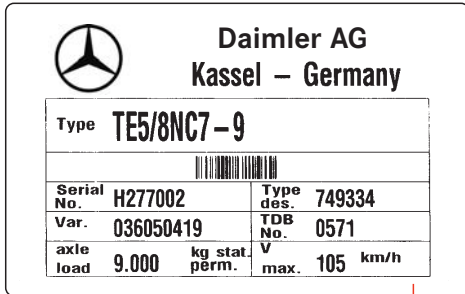
Operating Instructions and Spare Parts List for Trailer Axles

DCA WEIGHTMASTER / DCA MEGAMASTER / DCA AIRMASTER

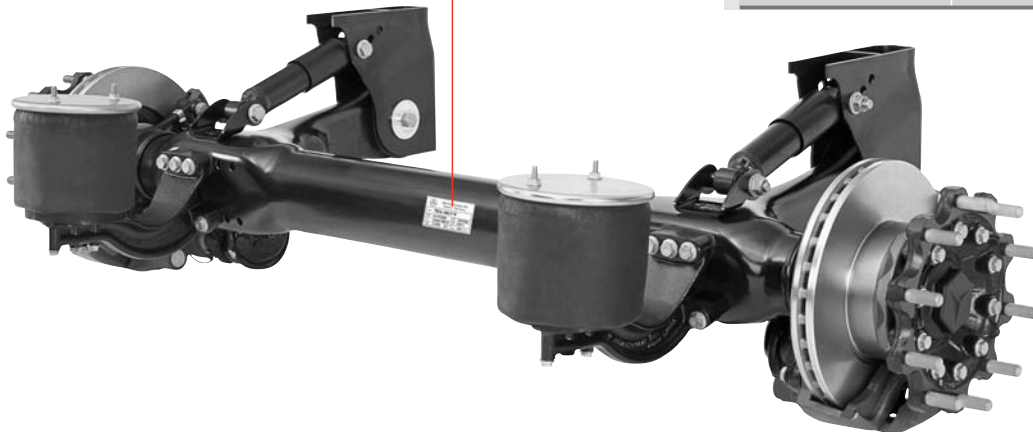
Mercedes-Benz



TrailerAxleSystems



The ID plate can be found on the centre of the axle housing.



Vehicle data	
Vehicle manufacturer	
Address	
Vehicle model	
Chassis no.	
Delivery	
Registration	
Axle numbers	

Table of contents

Introduction	4	Brakes	
		- Disc brake 22.5", manufactured by Knorr, SN7 (TDB 571)	
		- Disc brake 19.5", manufactured by Knorr, SN6 (TDB 637)	
Notes		- Parts illustration	18
- Model designations	4	- Parts list	19
- MB data systems (WIS/EPC)	5	- Disc brake 22.5", manufactured by Knorr, SK7 (TDB 815)	
- Warranty	6	- Parts illustration	20
- Welding instructions	7	- Parts list	21
- Spring-loaded parking brake	7		
- Checking brake lining thickness	8 - 9		
Maintenance specifications		Lift systems	
- Axle models TE5/8, TE4/8, TZ5/8 and TZ4/8	10 - 11	- Dual side lift DCA (Version up to 12/2007)	
		- Parts illustration and parts list	22 - 23
Wheel bearings		- Dual side lift DCA (Version from 01/2008)	
- Axle models TE5/8 and TE4/8 (9t / offset 120)		- Parts illustration and parts list	24
- Parts illustration and parts list	12	- Dual Side Lift DCA, "pivoted" version	
- Axle models TZ5/8 and TZ4/8 (9t / offset 0)		- Parts illustration and parts list	25
- Parts illustration and parts list	13	- Centre lift DCA	
		- Parts illustration and parts list	26
Axle system		Technical information	
- Axle models TE5/8, TE4/8, TZ5/8 and TZ4/8		- Tightening torques	27 - 28
- Parts illustration	14	- Tightening procedure for hanger bracket pivot bolt	29
- Parts list	15	- DCA Airmaster	
		- Axle with energy accumulator (compressed air)	30 - 31
Air springs		- Brake cylinders	32
- Standard mounting for air spring		- Tools	
- Parts illustration	16	- Replacement part illustration and replacement	
- Parts list	17	- part description	33
		Maintenance work	34 - 37

Introduction

This maintenance booklet is intended to serve as a guideline for performing maintenance work on your axle.

Always perform the work specified by us when it is due to maintain operating reliability.

Our axles are subject to continuous development. Please appreciate that the maintenance scopes may change due to technical modifications.

Any maintenance work due and inspections prescribed at certain intervals by law (in Germany, for example, Section 29 of the StVZO Road Transport Licensing Regulations) can be performed individually or together, depending on what is better for the individual company.

In order to offer the most favourable scope of work, it is possible to select between:

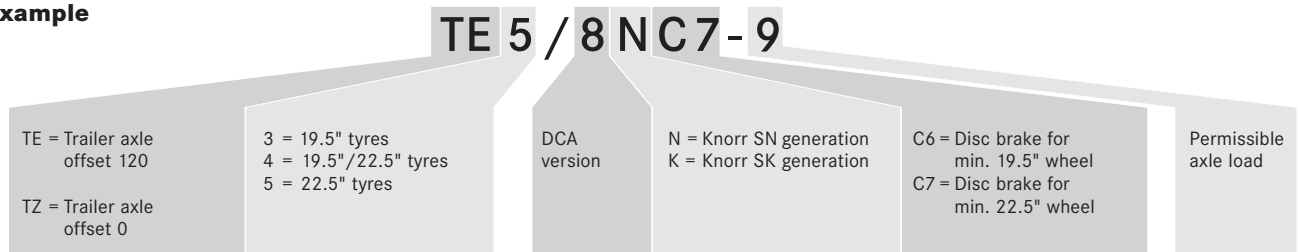
- Complete maintenance
- Maintenance excluding those items which are covered by the intermediate and main inspections.

The "daily vehicle check" before starting a journey is one of the driver's obligations and is described in the vehicle Operating Instructions.

In addition, this means that on DCA Airmaster axles, the drainage procedure must be carried out daily and/or before starting a journey.

Model designations for trailer and semi-trailer axles

Example



Information in the data systems (WIS/EPC) at MB Service Stations

Data card for trailer axle systems:

In order for the necessary replacement parts to be clearly identified, the installed components (SAA - optional equipment versions) must be determined with the VeDoc System using the axle serial no. (1) on the ID plate.

Example:

In the VeDoc Section Aggregate (IAG), in the space for the axle serial no., the axle number is to be entered as it is on the ID plate (here, e.g. H277002). Use the tab (SAA number) to receive an overview of the items of optional equipment which are installed at the factory.

Part identification:

When you reach the start screen of the EPC System (directly after entering the WDB vehicle ident. serial no.), enter the axle model no. – e.g. 749334 – stated on the ID plate or in the FDOK data card. A list of parts for this axle model will now be displayed.

In the case of components fitted as an option, the validity must be checked against the VeDoc data so that the parts can be clearly identified.

Repair instructions:

Instructions for carrying out repairs to Mercedes-Benz TrailerAxleSystems can be found in the **WIS System** by entering the ‘dummy’ vehicle ident. no. WDB000001, and then selecting

		Daimler AG Kassel – Germany	
Type TE5/8NC7-9			
Serial No.	H277002	Type des.	749334
Var.	036050419	TDB No.	0571
axle load	9.000	kg stat. V max.	105 km/h
	pBfm.		

the corresponding axle system on the right-hand side under the heading “Major Assembly”. You can then view the relevant documents by selecting the menu options “Documentation” and “Selection of test and repair

operations”. The model designation can again be read off the data card or the ID plate.

Alternatively, you can retrieve the required repair instructions via the “Table of contents” and the following sub-directories:



- > AR (test and repair work)
- > Truck
- > Rear axle
- > Rear axle 749
- Suspension (air suspension)
- Rear axle (axle)
- Brakes (brake)

You can also find this information at:

www.dca-family.com

Notes

Warranty

An extensive network of Mercedes-Benz Service Stations is available to perform the maintenance work for you. Thanks to their equipment, tools, specially trained personnel, experience and regular technical training by the plant, all of these workshops ensure that your axle will be checked and serviced properly, thoroughly and in line with the latest practices. Warranty claims related to Mercedes-Benz TrailerAxleSystems can be filed with any authorised Mercedes-Benz Service Station.

Please follow the instructions in this maintenance booklet and ensure that they are also observed when a third party is responsible for use and care of the vehicle. Only in this man-

ner can you ensure that your warranty remains valid. If maintenance services during the warranty period are not performed regularly or when they are due, or are not performed by an authorised workshop, a decision can only be made regarding warranty claims once an analysis report from the manufacturer is available.

Special lubricant additives are not required. The use of special additives and non-approved spare parts may limit the scope of the warranty.

No legal rights can be derived from the contents of these Operating Instructions.

If you have any questions concerning the warranty, please contact the service department at:

D, B, NL, A, CH, PL

- phone +49 (0) 561 802-2777
- fax +49 (0) 561 802-2164

UK

- phone +44 (0)1244 394-220
- fax +44 (0)1244 394-224

F, E, P, I

- phone +33 (0) 499 1337-37
- fax +33 (0) 499 1337-30

GR

- phone +30 (0) 210 6220316
- fax +30 (0) 210 8161309

Welding instructions

Axle parts and parts of the wheel brakes are safety-critical parts. For this reason, the following work is in principle not permissible:

- Welding
- Build-up welding
- Heating and straightening
- Hard chrome plating
- Other similar work.

Such work can result in tension cracks which cannot be detected externally, but which can lead to fractures and accident damage. Any welding work required is subject to approval and must be agreed upon with Mercedes-Benz TrailerAxleSystems first.

For DCA Airmaster axles: Welding work on the axle body (axle with energy accumulator - compressed air) is not permitted due to the corrosion protection coating on the inside of the axle body.

Brake system

Release of the spring-loaded parking brake with insufficient supply pressure in the brake system

In emergencies or in the workshop, the spring-loaded parking brake can be released mechanically or pneumatically.

Caution! Risk of accident.

- **Before releasing the spring-loaded parking brake:**
Ensure that the vehicle cannot roll away.
- **Before starting up vehicle:**
Ensure that spring-loaded parking brake is in a proper operational state.
Apply parking brake.

Mechanical release

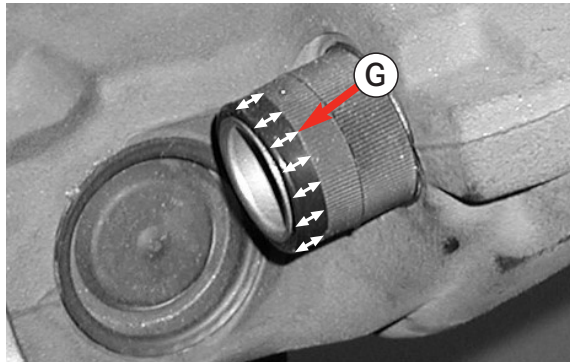
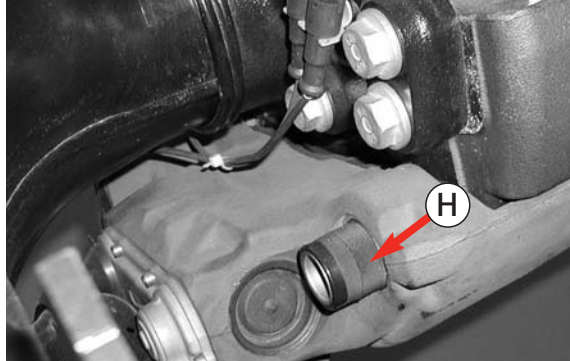
- Screw release screws out to stop (released position).
Warning! Release torque of 35 Nm
(do not use an impact screwdriver)

To return spring-loaded parking brake to an operational state:

- Fill the brake system up to switch-off pressure
- Move the lever on the parking brake valve to the released position
- Completely screw in and tighten release screws (braked position)
Tightening torque: 45 Nm

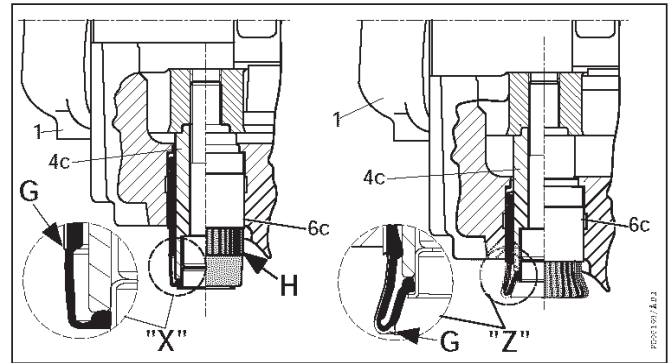
Notes

Checking brake lining thickness



Checking brake lining wear with brake still fitted (SN6 / SN7):

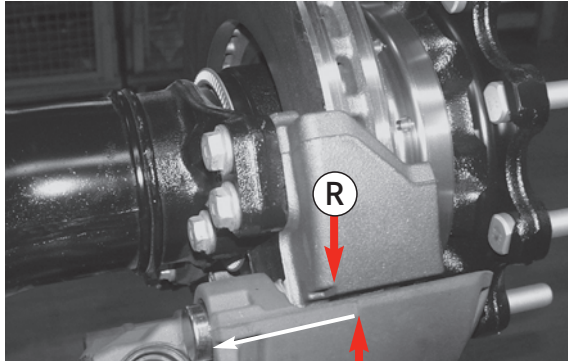
On all radial disc brakes with a guide sleeve which is grooved along its length (see arrow H).



The brake lining thickness can be checked with the wheels still fitted by examining the position of the edge "G" (transition point between the grooved and the smooth section).

State "X" shows the position of the wear mark "G" on the guide sleeve (6c) when the brake linings are **new**. The smooth section in front of the wear edge "G" is fully visible.

State "Z" shows the position of the wear mark "G" when the guide sleeve (6c) has rolled up, indicating that the **wear limit** has been reached. The smooth section in front of the wear edge "G" can no longer be seen. If this limit has been reached, the brake lining thickness and brake disc have to be checked again with the wheels removed. If necessary, replace the brake linings and/or the brake disc in accordance with the vehicle manufacturer's instructions (see table, page 11).

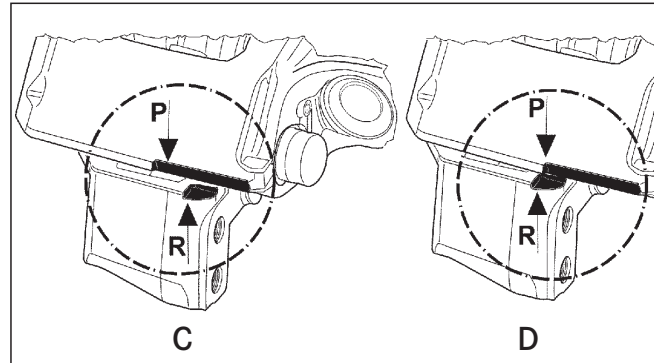


Movement of the
brake calliper if
worn

P

Checking brake lining wear with brake still fitted (SK7):

On all disc brakes with calliper and brake carrier markings (see arrows P and R).



The brake lining thickness can be checked with the wheels still fitted by examining the position of the brake calliper marking (P) in relation to the fixed brake carrier marking (R).

If state "D" is reached then the brake lining thickness and brake disc have to be checked again with the wheels removed.

If necessary, replace the brake linings and/or the brake disc in accordance with the vehicle manufacturer's instructions (see table, page 11).

C = new condition

D = brake lining and brake discs have to be checked with the wheels removed.

Maintenance specifications

Axle models TE5/8, TE4/8, TZ5/8 and TZ4/8

Maintenance work

Caution: always retighten wheel nuts to the specified tightening torque after 50 km (this also applies following each wheel change).

Maintenance-free compact bearings

Visually check for signs of wear (e.g. grease leakage) each time the brake discs are replaced (e.g. no endfloat).

Note: the sealing system may become damaged by the brakes overheating.

Visual check and safety tests

- Check chassis parts *annually* for wear, leakage and damage.
- Check brake lining wear regularly (when checking tyre pressure, for example)
- Check brake callipers *annually* for free movement (sliding), check external sealing boots of bolt guide for leakage.

General annual safety test e.g. automatic load-dependent brake-power distribution, tractor/trailer brake force distribution. If the tractor vehicle has been changed or has a different braking system from the trailer it is towing, the tractor/trailer brake force distribution must be adjusted. If the brake discs or linings are replaced, check the inner bellows of the brake calliper and replace if necessary.

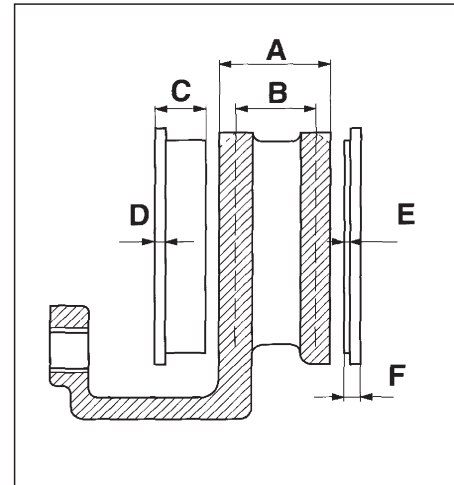
Conditions of use

- **Vehicles with low mileage:**
Perform maintenance based on time intervals
- **Vehicles operating under extreme conditions:**
Reduce maintenance intervals accordingly

Service-product specifications

- Brake callipers/air springs and brass bushings:
Renolit HLT2
- Brake callipers/rubber guide sleeve (70.3):
Syntheso GL EPI
- Bearing seat/axle stub: MB assembly paste
(A 000 989 80 51 10)

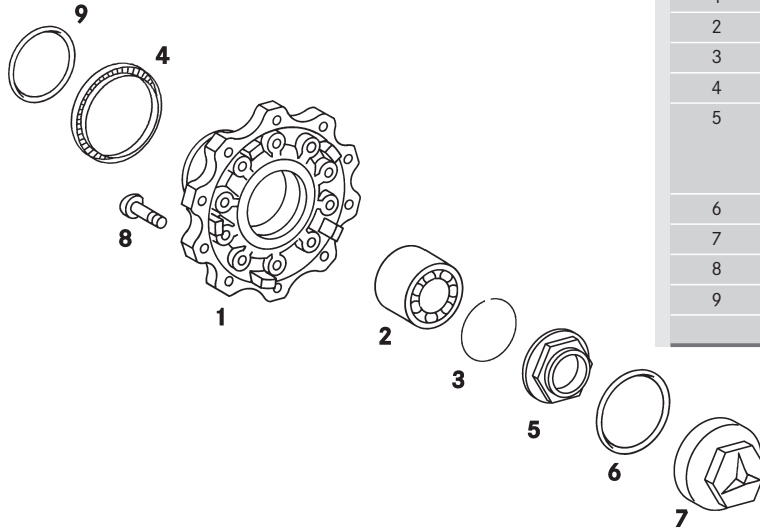
Technical data	Brake model SN6 19.5"	Brake model SN7 22.5"	Brake model SK7 22.5"
A Disc thickness	45 mm	45 mm	45 mm
B Disc wear limit	≤ 37 mm	≤ 37 mm	≤ 37 mm
C Lining thickness	30 mm	30 mm	30 mm
D Backing plate	9 mm	9 mm	7 mm
E Remaining lining thickness	2 mm	2 mm	2 mm
F Absolute minimum thickness	11 mm	11 mm	9 mm
Disc diameter	370 mm	430 mm	430 mm
No. of brake linings/axle	4	4	4



Wheel bearing

Axle models TE5/8 and TE4/8 (9t / offset 120)

Parts illustration

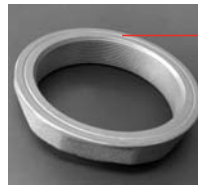


Parts list

Item no.	Part description	Part no.
1	Wheel hub	available
2	Tapered roller bearing unit	only as
3	Retaining clip	complete set
4	Pole wheel - 90 tooth	A 946 334 05 15
5	Hex. Collar Nut M80x1.5	
	with RH thread (right side of vehicle)	A 970 990 00 50
	with LH thread (left side of vehicle)	A 970 990 01 50
6	O-ring	A 027 997 88 48
7	Hub cap	A 946 356 04 20
8	Wheel bolt M22x1.5x80	A 389 401 00 71
9	O-ring (from H 240 235)	A 029 997 97 48
	Wheel nut (not illustrated)	A 000 401 06 72



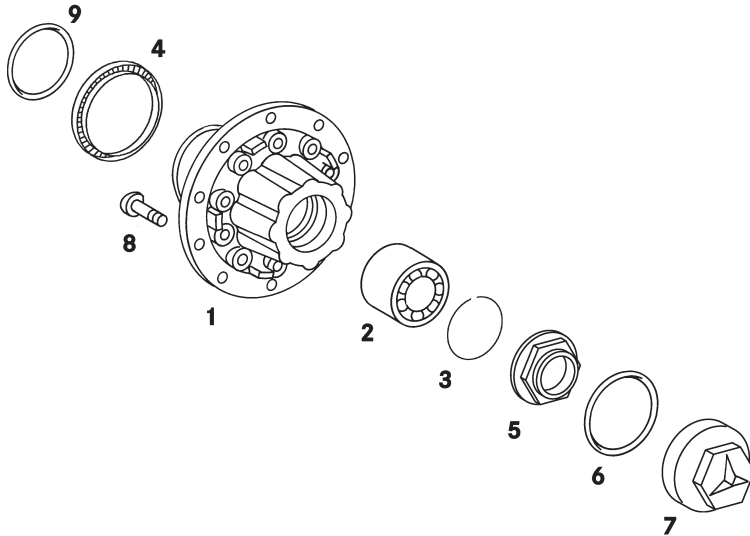
The left hand spindle end is engraved to indicate that it is a left hand threaded axle end nut.



The front face of the left hand nut is marked with a groove on the machine face.

Axle models TZ5/8 and TZ4/8 (9t / offset 0)

Parts illustration

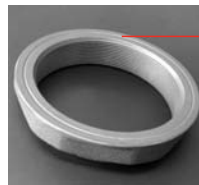


Parts list

Item no.	Part description	Part no.
1	Wheel hub	A 000 350 09 35
2	Tapered roller bearing unit	} available only as complete set
3	Retaining clip	
4	Pole wheel - 90 tooth	
5	Hex. Collar Nut M80x1.5	A 946 334 05 15
	with RH thread (right side of vehicle)	A 970 990 00 50
	with LH thread (left side of vehicle)	A 970 990 01 50
6	O-ring	A 027 997 88 48
7	Hub cap	A 946 356 04 20
8	Wheel bolt M22x1.5x80	A 389 401 00 71
9	O-ring (from H 240 235)	A 029 997 97 48
	Wheel nut (not illustrated)	A 000 401 06 72



The left hand spindle end is engraved to indicate that it is a left hand threaded axle end nut.

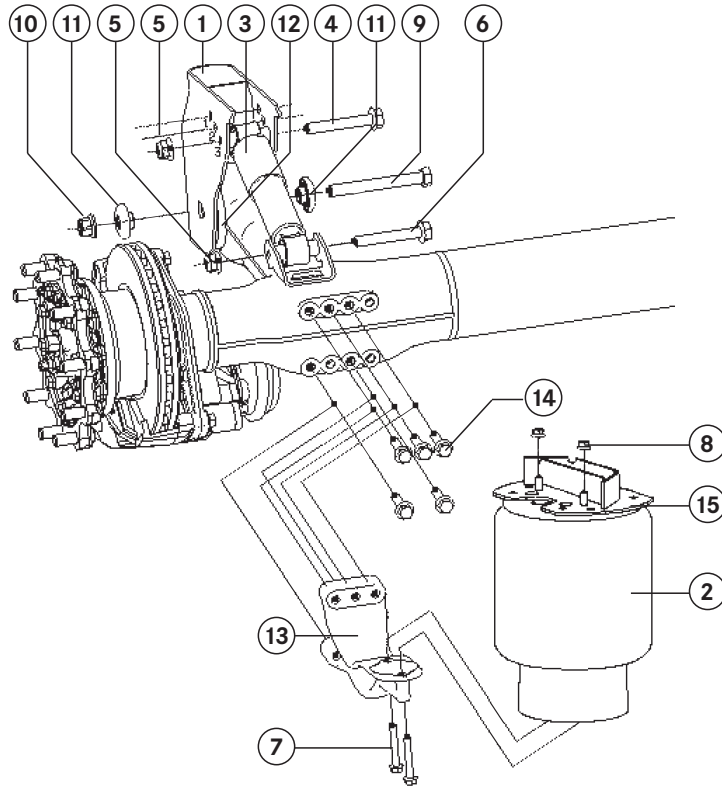


The front face of the left hand nut is marked with a groove on the machine face.

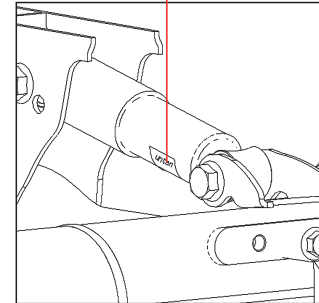
Axle system

Axle models TE5/8, TE4/8, TZ5/8 and TZ4/8

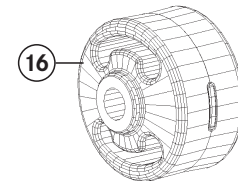
Parts illustration



Labelling



In order to ensure that the shock absorber can function correctly, it is essential that it is installed in the position indicated by the attached label.



Parts list

Item no.	Part description	Part no.
1	Hanger bracket H=250	A 946 320 65 78
	Hanger bracket H=325	A 946 320 66 78
	Hanger bracket H=400	A 946 320 67 78
2	Air spring	See pages 16-17
3	Shock absorber	A 946 326 05 00
	Shock absorber	A 946 326 07 00
4	Hex. flange bolt M20x1,5x130-10.9	N 000 000 005 571
5	Hex. nut M20	A 946 990 08 50
6	Hex. bolt M20x1.5x100-10.9	N 000 000 005 729
7	Air spring mountings	See pages 16-17
8	Hex. nut M12	A 946 990 02 50
9	Hex. bolt M22x1.5x195	A 946 990 00 00
10	Wheel nut	A 000 401 06 72
11	Pivot tracking washer	A 946 328 04 76

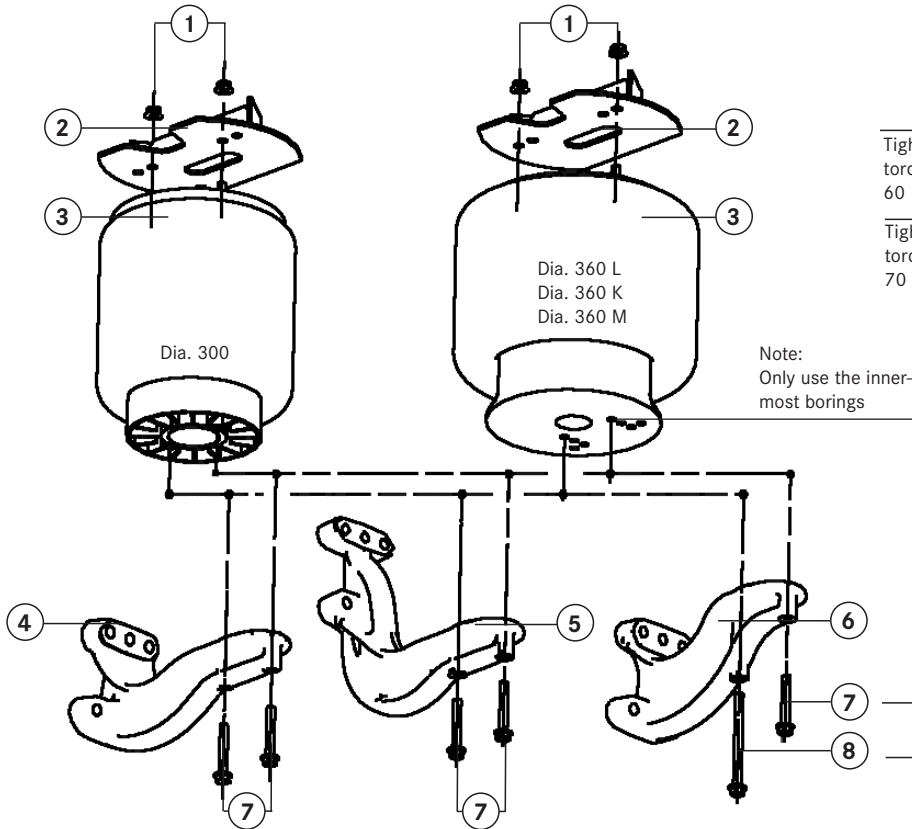
Item no.	Part description	Part no.
12	Anti-wear washer*	A 946 328 00 76
13	Air spring lower support	See pages 16-17
14	Hex. bolt M14x1.5x45-10.9 for air spring support type A, B and C	N 910 105 014 010 See pages 16-17
	Hex. flange bolt M14x1.5x60-10.9 for air spring support type D	N 000 000 005 721 See pages 16-17
15	Air spring bracket H=5	A 946 328 70 35
	Air spring bracket H=50	A 946 320 03 35
	Air spring bracket H=70	A 946 320 04 35
	Air spring bracket H=100	A 946 320 06 35
	Air spring bracket H=125	A 946 320 10 35
	Air spring bracket H=155	A 946 320 08 35
16	3D pivot bush	A 946 390 02 50

* See maintenance instructions (p. 10-11)

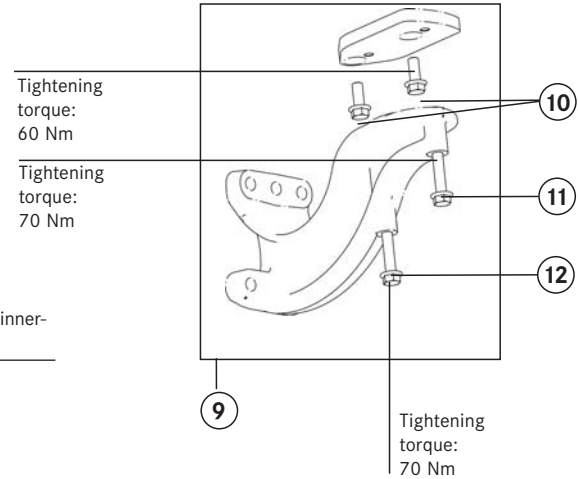
Air springs

Standard mounting for air spring

Parts illustration



Mounting of tipper offset plate
(road finishing machine)
(Only to be used with air bellows
support A 946 328 1341)



9

10

11

12

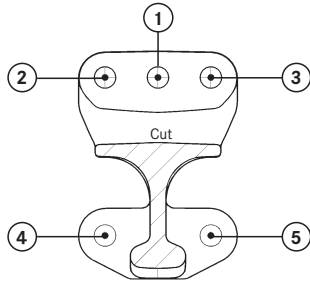
Tightening
torque:
70 Nm

Tightening
torque:
60 Nm

Tightening
torque:
70 Nm

Tightening
torque:
60 Nm

Air-spring mounting bolt tightening sequence



The clamping surfaces of the air-spring mounting bracket must be clean and free of paint.

Parts list

Item no.	Part description	Part no.
1	Hex. nut M12	A 946 990 02 50
2	Air spring pedestal	See page 15
3	Air spring, dia. 300	A 946 328 14 01
	Air spring, dia. 360 L (1D28f)	A 946 328 15 01
	Air spring, dia. 360 K (1D28a-13)	A 946 328 19 01
	Air spring, dia. 360 M	A 946 328 22 01
4	Air spring support, type A, medium M 14 2x A 946 328 12 41	A 946 320 00 34*
	Air spring support, type A, medium M 16 2x A 946 328 08 41	A 946 320 04 34*
5	Air spring support, type B, low M 14 2x A 946 328 11 41	A 946 320 03 34*

New bolts are to be tightened to an initial torque of **100 Nm** in the sequence indicated, then further tightened by **60°** (1,5 bolt faces/only for thread M14).

If an internal thread M16 is damaged, use a threaded insert (Helicoil).

If an air spring support is replaced, the manufacturer's warranty for the bolted connection becomes invalid.

Item no.	Part description	Part no.
5	Air spring support, type B, low M 16 2x A 946 328 15 41	A 946 320 05 34*
	Air spring support, type D, low M 14 2x A 946 328 14 41	A 946 320 01 34*
6	Air spring support, type C, high M 14 2x A 946 328 13 41	A 946 320 02 34*
	Air spring support, type C, high M 16 2x A 946 328 10 41	A 946 320 06 34*
7	Hex. bolt M12x80-10.9	N 910 105 012 022
8	Hex. bolt M12x150-10.9	N 000 000 003 493

Item no.	Part description	Part no.
9	Parts kit, offset plate for 1 axle	A 946 320 24 35
10	Bolt M12x30 -10.9	N 910 105 012 024
11	Bolt M12x1.5x65 -10.9	N 910 105 012 019
12	Bolt M12x1.5x130 -10.9	N 910 105 012 033

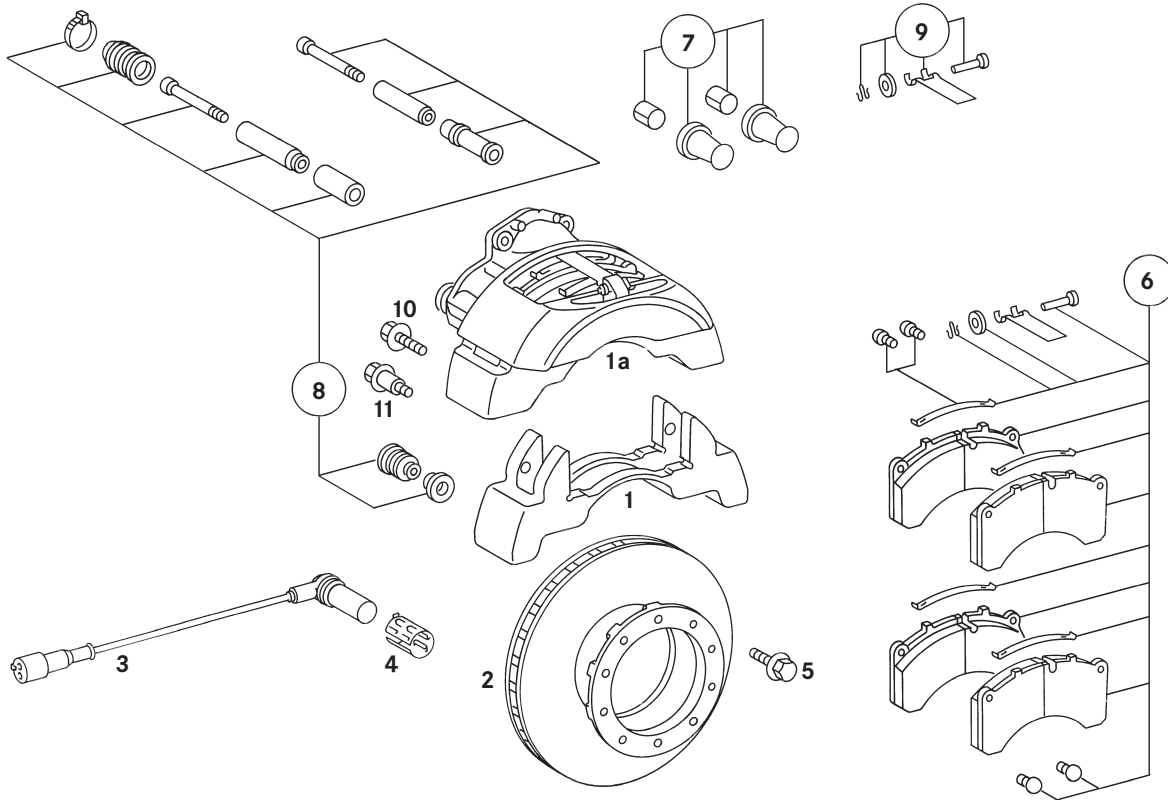
* Repair parts for an axle includes fasteners

Brakes

Disc brake 22.5", manufactured by Knorr, SN7 (TDB 571)*

Disc brake 19.5", manufactured by Knorr, SN6 (TDB 637)*

Parts illustration



Brake calliper parts list Model SN7 - 22.5"

Item no.	Part description	Part no.
1	Brake carrier	A 000 421 25 06
1a	Repair solution, left actuating unit	A 004 420 25 83 80
	Repair solution, right actuating unit	A 004 420 26 83 80
2	Brake disc	A 942 423 00 12
3	ABS sensor	A 004 542 44 18
4	Bushing for sensor	A 355 542 02 73
5	Hex. bolt TE5 14x1.5x75	A 004 990 59 04
6	Brake lining set (for one axle)	A 004 420 60 20
7	Tappet & Boot set (for pistons)	A 000 420 23 82
8	Slide pin kit and guide pin	A 000 420 34 82
9	Lining bracket set	A 000 420 24 82
10	Bolt M16x1.5x60	N 000 000 005 536
11	Shoulder bolt	A 942 990 01 14
	Lining wear sensor kit (not illustrated)	A 946 542 01 18

Brake calliper parts list Model SN6 - 19.5"

Item no.	Part description	Part no.
1	Brake carrier	A 000 421 20 06
1a	Repair solution, left actuating unit	A 002 420 26 01 80
	Repair solution, right actuating unit	A 002 420 27 01 80
2	Brake disc	A 675 421 00 12
3	ABS sensor	A 004 542 44 18
4	Bushing for sensor	A 355 542 02 73
5	Hex. bolt TE4 14x1.5x70	N 910 105 014 009
6	Brake lining set (for one axle)	A 002 420 78 20
7	Tappet & Boot set (for pistons)	A 000 420 23 82
8	Slide pin kit and guide pin	A 000 420 46 82
9	Lining bracket set	A 000 420 25 82
10	Bolt M16x1.5x60	N 000 000 005 536
11	Shoulder bolt	A 942 990 01 14
	Lining wear sensor kit (not illustrated)	A 946 542 01 18

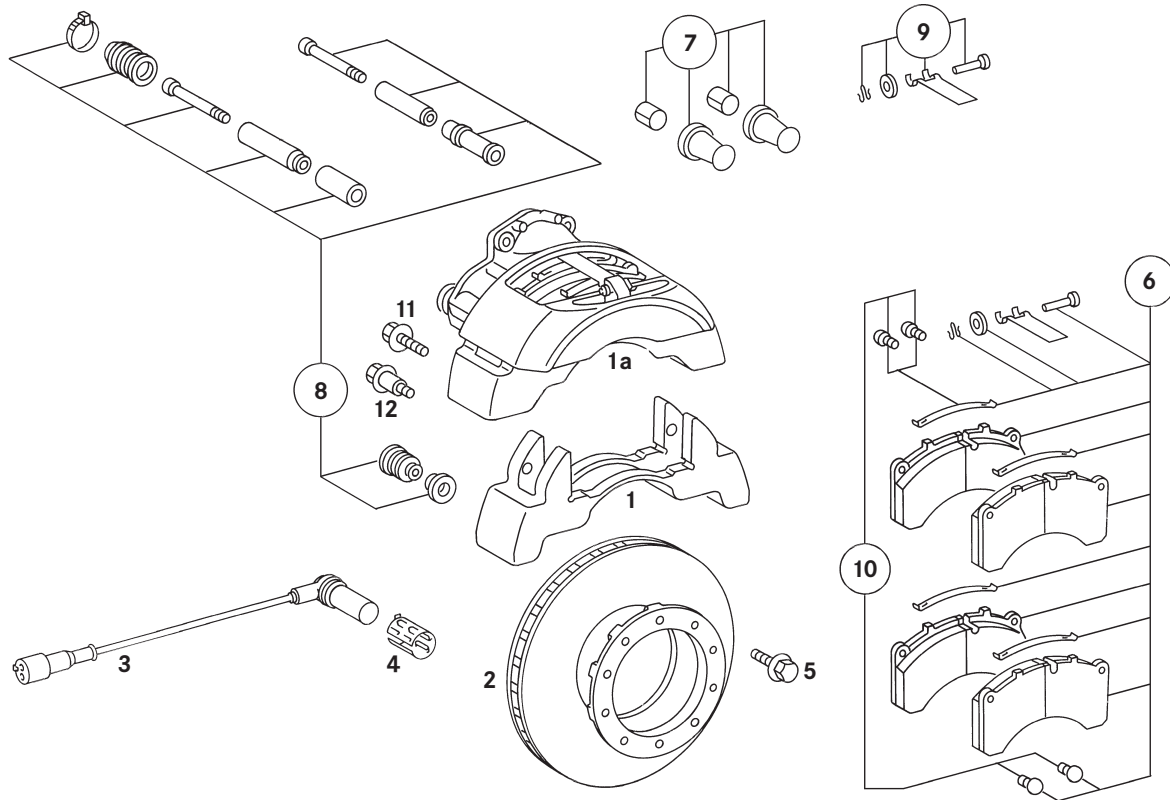
SN7 and SK7 generation brakes are not interchangeable.

* TDB-no. see ID plate (page 5)

Brakes

Disc brake 22.5", manufactured by Knorr, SK7 (TDB 815)*

Parts illustration



Disc brake 22.5", manufactured by Knorr, SK7

Item no.	Part description	Part no.
1	Brake carrier	A 000 421 39 06
1a	Repair solution, left actuating unit	A 003 420 91 83 80
	Repair solution, right actuating unit	A 003 420 92 83 80
2	Brake disc	A 942 423 00 12
3	ABS sensor	A 004 542 44 18
4	Bushing for sensor	A 355 542 02 73
5	Hex. bolt TE5 14x1.5x75	A 004 990 59 04
6	Brake lining set (for one axle)	A 004 420 70 20
7	Tappet & Boot set (for pistons)	A 000 420 49 82
8	Slide pin kit and guide pin	A 000 420 50 82
9	Lining bracket set	A 000 420 25 82
10	Adjuster cap set	A 000 421 32 48
11	Bolt M16x1.5x60	N 000 000 005 536
12	Shoulder bolt	A 942 990 01 14
	Lining wear sensor kit (not illustrated)	A 946 542 01 18

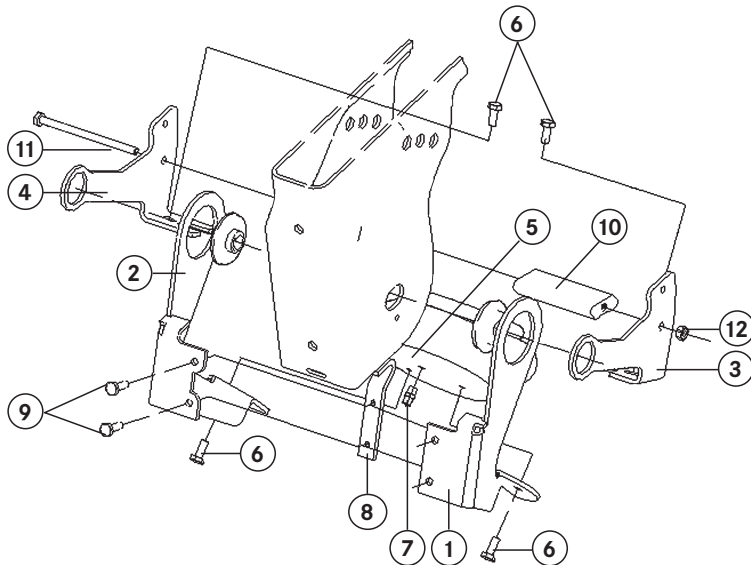
SN7 and SK7 generation brakes are not interchangeable.

* TDB-no. see ID plate (page 5)

Dual side lift

(Version up to 12/2007) OEM-No.: A 946 390 23 70

Parts illustration



Parts list

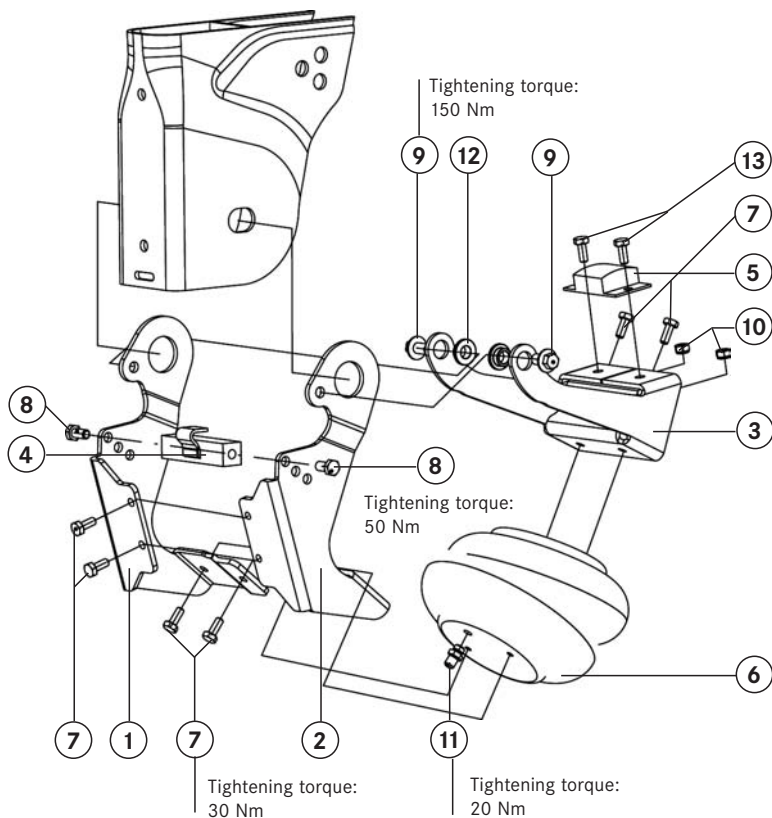
Item no.	Part description	Part no.
1	Half bracket, left (Air spring fixed mounting) A 946 328 28 40	A 946 390 02 40
2	Half bracket, right (Air spring fixed mounting) A 946 328 29 40	
3	Half bracket, left (Air spring rotating mounting) A 946 328 30 40	A 946 390 03 40
4	Half bracket, right (Air spring rotating mounting) A 946 328 31 40	
5	Lift air spring	A 946 328 16 01
6	Hex. bolt M10x20-8.8	A 946 990 08 01
7	Adapter G1/4" to M 14x1.5	A 946 328 02 64
8	Locating hook plate	A 946 328 32 40
9	Hex. bolt M10x25-8.8	A 946 990 04 01
10	Rubber lift pad	A 946 325 00 44
11	Hex. bolt M10x160-8.8	A 946 990 02 01
12	Hex. nut M10	A 946 990 09 50

Lift system

Dual side lift DCA (Version from 01/2008)

(Version up to 01/2008) OEM-No.: A 946 390 30 70

Parts illustration



Parts list

Item no.	Part description	Part no.
1	Half bracket, left (air spring fixed mounting) (A 946 391 10 40)	} available only as complete set A 946 390 04 40
2	Half bracket, right (air spring fixed mounting) (A 946 391 09 40)	
4	Lift pad (A 946 391 00 87)	
8	Hex. bolt M12x30-8.8 (N 910105 012007)**	
7	Hex. bolt M10x25-8.8 (N 910105 010009)	} available only as complete set A 946 390 05 40
3	Air spring bracket (air spring rotating mounting) (A 946 391 04 38)	
9	Hex. bolt M14x2x25 (N 910106 014001)	
12	Bushing (A 946 391 00 50)	
5	Rubber lift pad*	A 946 325 01 44
6	Lift air spring	A 946 328 16 01
10	Hex. nut M10	N 913023 010002
11	Adapter G1/4" to M14x1.5	A 946 328 02 64
13	Hex. bolt M10x30-10.9	N 910105 010001

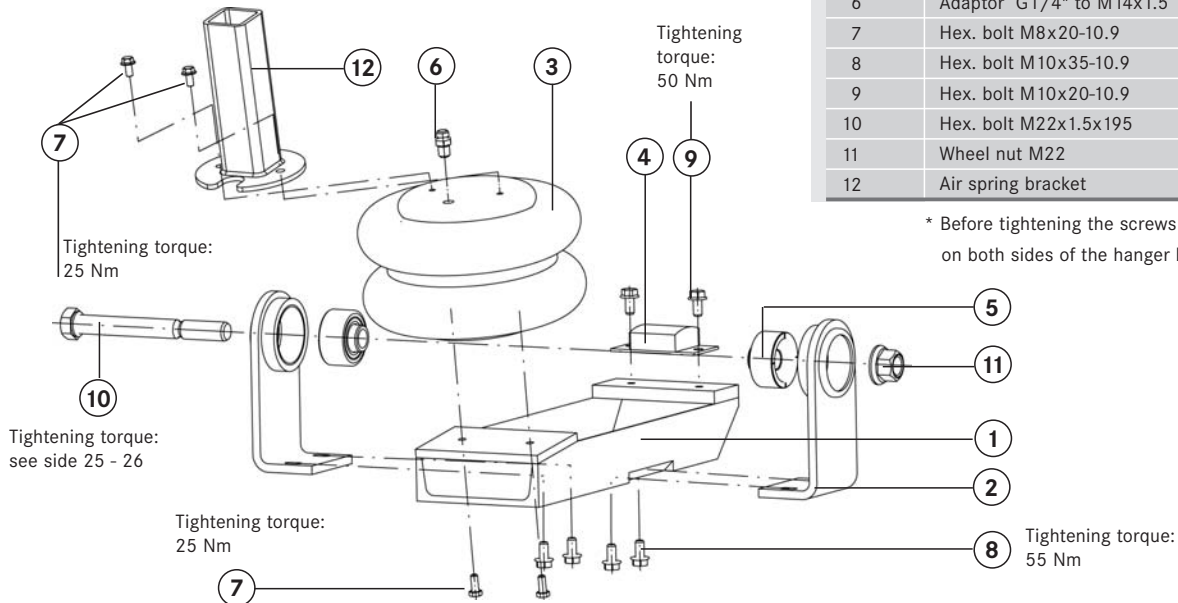
* Position the rubber lift pad centrally under the strut

** When tightening, the lift pad should be parallel to the bottom side of the hanger bracket

Dual Side Lift DCA, "pivoted" version

OEM-No.: A 946 390 28 70

Parts illustration



Parts list

Pos.-Nr.	Part description	Part no.
1	Axle lift arm	A 946 350 18 06
2	Lift arm bracket*	A 946 350 01 38
3	Lift air spring	A 946 328 24 01
4	Rubber stop	A 946 325 01 44
5	Pivot tracking washer	A 946 990 01 86
6	Adaptor G1/4" to M14x1.5	A 946 328 00 62
7	Hex. bolt M8x20-10.9	N 910105 008026
8	Hex. bolt M10x35-10.9	N 910105 010007
9	Hex. bolt M10x20-10.9	N 910105 010006
10	Hex. bolt M22x1.5x195	A 946 990 00 00
11	Wheel nut M22	A 000 401 06 72
12	Air spring bracket	A 946 328 80 35

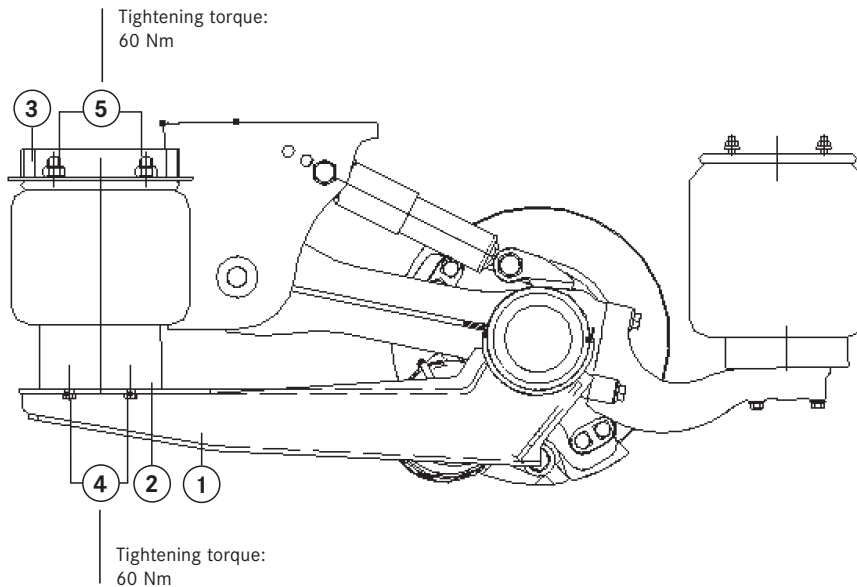
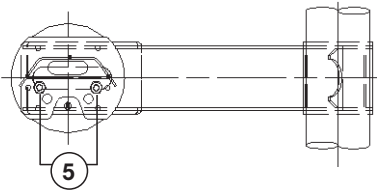
* Before tightening the screws (item 8), place the holders (item 2) on both sides of the hanger bracket

Lift system

Centre lift DCA

OEM-No.: A 946 390 18 70

Parts illustration

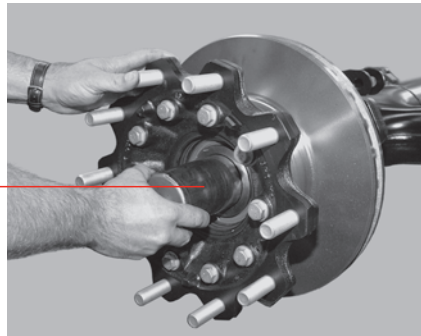
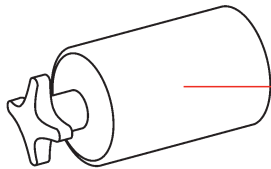


Parts list

Item no.	Part description	Part no.
1	Lift arm	A 946 350 09 06
2	Air spring	A 946 328 14 01
3	Air spring bracket H=200	A 946 320 18 35
4	Hex. bolt M12x30-10.9	N 910 105 012 024
5	Hex. nut M12	A 946 990 02 50

Tightening Torques

Wheel nuts	M22 x 1.5	600 Nm
Brake disc on hub	M14 x 1.5	190 Nm
Brake chamber mounting	M16 x 1.5	180 Nm
Brake calliper mounting	M16 x 1.5	275 Nm



Compact bearing

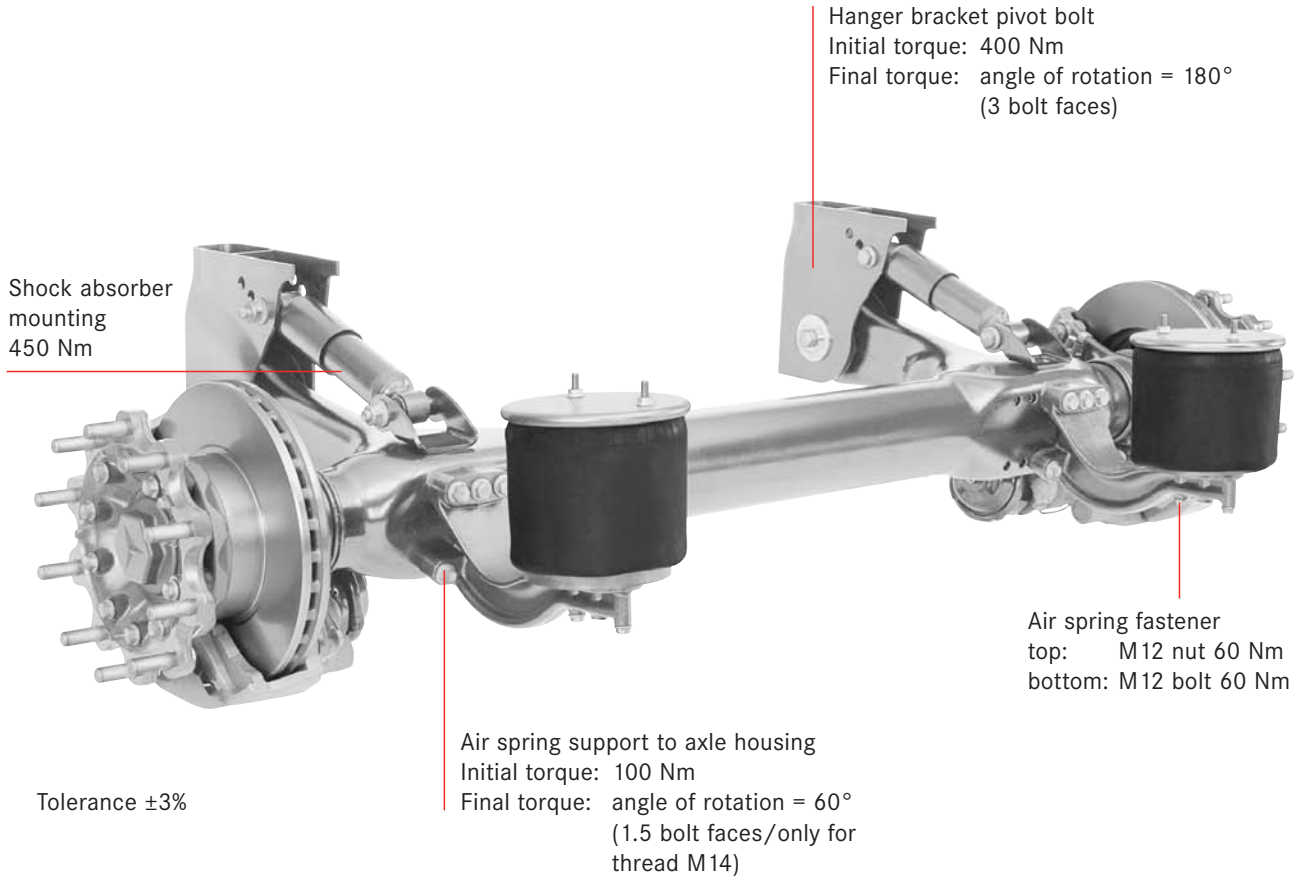
- Final torque** Axle end nut (= hex. collar nut M80 x 1.5) 700 Nm
- Bearing play** Bearing play not adjustable
- Hub cap** Press-fit hub cap

When fitting and removing the hub it is important to use the Assembly Aid to prevent damage to the axle thread and cartridge bearing assembly. (See page 33 for list of tools)

Detailed Repair Instructions can be found at:
www.dca-family.com ▶ Service ▶ Repair Instructions

Technical information

Tightening torques



Tightening procedure for hanger bracket pivot bolt

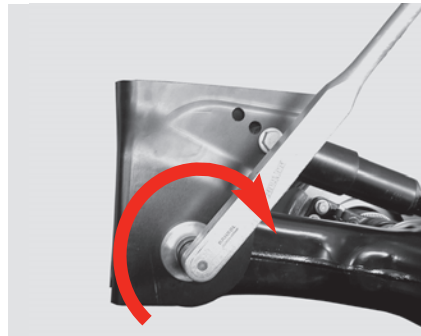
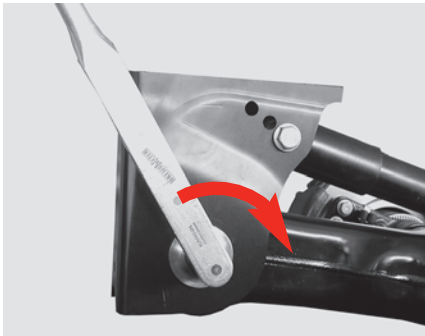
Tighten the hanger bracket pivot bolt nut at the correct **ride height**. Do **not** oil the thread.

1. Initial tightening torque

Tighten pivot nut to **400 Nm** with torque wrench.

2. Final torque with angle of rotation

Continue to turn nut by **180°** (3 bolt faces). When tightened correctly, retightening is not required on steel hanger brackets.



Caution: To check nut for correct torque: If initial torque is correct there will be a tightening torque window between 600 and 800 Nm.

If the nut continues to rotate below the torque window, the bolt and nut need to be replaced immediately and tightened using the torque/angle settings (see point 1 and 2).

When repainting components, observe the manufacturer's guidelines and mask the appropriate bolt connection areas.

Technical information

DCA AIRMASTER - Axle with energy accumulator (compressed air)

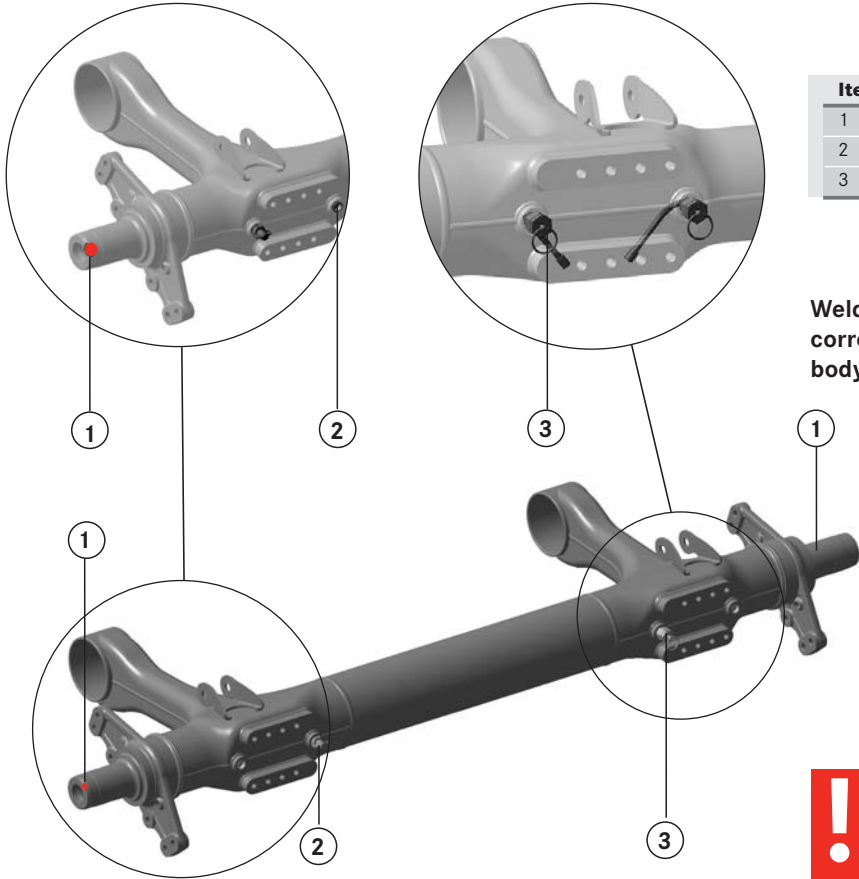


Compressed air threaded connection, M 22 x 1.5, tightening torque of 40 Nm (for all other tightening torques: see page 26)



**System is pressurised.
Warning: Risk of accident!
Before working on the axle body, release the
compressed air!**


Tolerances $\pm 3\%$



Item no.	Part description	Part no.
1	Screw plug*, **	A 001 990 19 17
2	Test connector*	A 946 431 00 31
3	Drain valve*	A 947 391 00 21

* Including sealing rings
 ** System is pressurised; **Warning: Risk of accident!**

Welding work on the axle body is not permitted due to the corrosion protection coating on the inside of the axle body.

 Daimler AG Kassel - Germany	
Max. Operating Pressure	PS 20 bar
Max. Operating Temperature	T max 60° C
Min. Operating Temperature	T min -40° C
Volume V	37 Liter

“Energy accumulator” information plate

!
System is pressurised.
Warning: Risk of accident!
Before working on the axle body, release the compressed air!

Technical information

Brake cylinders

Chamber size	Part no.	Stroke	Manufacturer	Installation side looking in direction of travel
Piston cylinder				
16/16"	A 017 420 88 18	57 mm	WABCO	left
16/16"	A 017 420 89 18	57 mm	WABCO	right
16"	A 006 420 52 24	57 mm	WABCO	-
16/24"	A 018 420 52 18	57 mm	WABCO	right
16/24"	A 018 420 53 18	57 mm	WABCO	left
20"	A 007 420 12 24	62 mm	WABCO	-
20/24"	A 018 420 55 18	64 mm	WABCO	left
20/24"	A 018 420 56 18	64 mm	WABCO	right
22"	A 007 420 13 24	62 mm	WABCO	-
24"	A 007 420 14 24	62 mm	WABCO	-
Double-membrane cylinder				
16"	A 008 420 85 24	57 mm	HALDEX	-
16/24"	A 023 420 46 18	57 mm	HALDEX	right
16/24"	A 023 420 47 18	57 mm	HALDEX	left

Caution: when replacing brake cylinders, always remove the lowermost drain plugs!

Item no.	Part description	Part no.
1	Elbow fitting	A 000 420 05 66
2	Hex. nut M16x1.5-10	N 910 113 016 001

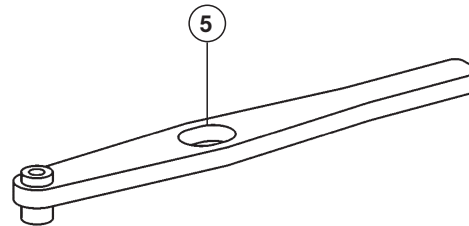
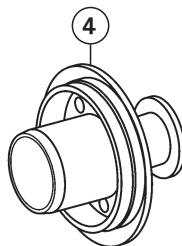
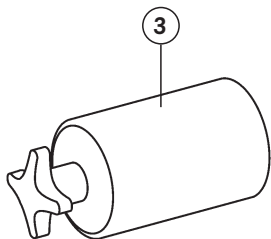
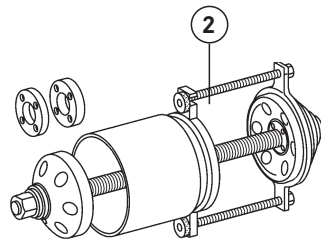
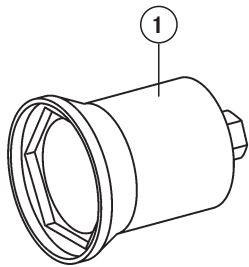
Tools

Parts illustration

Parts list

Item no.	Part description	Part no.
1	Socket wrench for hex. collar nut M80x1.5	W 749 589 00 09 00
2	Extraction and insertion tool for 3D pivot bush	W 749 589 01 33 00
3	Assembly aid for compact bearing hub	
	Right-hand-thread	W 749 589 02 14 00
	Left-hand-thread	W 749 589 01 14 00
4	Drift for fitting ABS/EBS pole wheel	W 749 589 00 15 00
5	Axle tracking adjustment tool	W 749 589 00 27 00

Special tools are available from the E-Shop of the Daimler AG Service Portal at:
www.service-and-parts.net



Maintenance work

<input type="checkbox"/>	Bolt connections checked and retightened to specified tightening torque
<input type="checkbox"/>	Chassis parts checked for wear, leakage and damage
<input type="checkbox"/>	Brake lining wear checked
<input type="checkbox"/>	Brake system checked for leakage
<input type="checkbox"/>	Braking effect of service brake and parking brake checked

Brake lining check	Remaining brake lining thickness	Lining replacement
First axle, left	<input type="text"/> mm	<input type="checkbox"/>
First axle, right	<input type="text"/> mm	<input type="checkbox"/>
Second axle, left	<input type="text"/> mm	<input type="checkbox"/>
Second axle, right	<input type="text"/> mm	<input type="checkbox"/>
Third axle, left	<input type="text"/> mm	<input type="checkbox"/>
Third axle, right	<input type="text"/> mm	<input type="checkbox"/>

Mileage	<input type="text"/>
Repair order no.	<input type="text"/>
Date	<input type="text"/>
Signature	<input type="text"/>

Authorised workshop stamp

<input type="checkbox"/>	Bolt connections checked and retightened to specified tightening torque
<input type="checkbox"/>	Chassis parts checked for wear, leakage and damage
<input type="checkbox"/>	Brake lining wear checked
<input type="checkbox"/>	Brake system checked for leakage
<input type="checkbox"/>	Braking effect of service brake and parking brake checked

Brake lining check	Remaining brake lining thickness	Lining replacement
First axle, left	<input type="text"/> mm	<input type="checkbox"/>
First axle, right	<input type="text"/> mm	<input type="checkbox"/>
Second axle, left	<input type="text"/> mm	<input type="checkbox"/>
Second axle, right	<input type="text"/> mm	<input type="checkbox"/>
Third axle, left	<input type="text"/> mm	<input type="checkbox"/>
Third axle, right	<input type="text"/> mm	<input type="checkbox"/>

Mileage	<input type="text"/>
Repair order no.	<input type="text"/>
Date	<input type="text"/>
Signature	<input type="text"/>

Authorised workshop stamp

Maintenance work

<input type="checkbox"/>	Bolt connections checked and retightened to specified tightening torque
<input type="checkbox"/>	Chassis parts checked for wear, leakage and damage
<input type="checkbox"/>	Brake lining wear checked
<input type="checkbox"/>	Brake system checked for leakage
<input type="checkbox"/>	Braking effect of service brake and parking brake checked

Brake lining check	Remaining brake lining thickness	Lining replacement
First axle, left	<input type="text"/> mm	<input type="checkbox"/>
First axle, right	<input type="text"/> mm	<input type="checkbox"/>
Second axle, left	<input type="text"/> mm	<input type="checkbox"/>
Second axle, right	<input type="text"/> mm	<input type="checkbox"/>
Third axle, left	<input type="text"/> mm	<input type="checkbox"/>
Third axle, right	<input type="text"/> mm	<input type="checkbox"/>

Mileage	<input type="text"/>
Repair order no.	<input type="text"/>
Date	<input type="text"/>
Signature	<input type="text"/>

Authorised workshop stamp

Please note: modifications may have been made to the products since this brochure went to print. The information in this brochure is to be regarded as approximate. The illustrations may contain accessories and items of optional equipment which are not part of standard specification. This brochure may also contain models and services which are not offered in certain countries. Please consult your Daimler AG dealer for current details.

**Mercedes-Benz
TrailerAxleSystems**
069-563 A
Mercedesplatz 1
34127 Kassel, Germany
Phone +49 (0) 561 802-2777
Fax +49 (0) 561 802-2164
E-Mail
service.trailerachsen@daimler.com

**Region Benelux
Mercedes-Benz
TrailerAxleSystems**
Masterode 2
5709HX, Helmond, The Netherlands
Phone +31 (0) 6-20 100 354
Fax +31 (0) 4-92 592 066
E-Mail arjen.mens@daimler.com

**Region Eastern Europe
Mercedes-Benz
TrailerAxleSystems**
Ul. Rymarska 35/3
53-206 Wrocław, Poland
Phone +48 (0) 692 437 029
Fax +48 (0) 608 540 036
E-Mail krzysztof.hala@daimler.com

**Sales Office Southern Europe
Mercedes-Benz
TrailerAxleSystems**
Southern Europe S.A.S.
11 Font de la Banquière
34970 Lattes, France
Phone +33 (0) 499 1337-37
Fax +33 (0) 499 1337-30
E-Mail isabelle.laval@daimler.com

**Mercedes-Benz
TrailerAxleSystems**
Via Sommacampagna 61
Cassetta Postale 15
37137 Verona, Italy
Phone +39 (0) 45 8623-077
Fax +39 (0) 45 8646-325
E-Mail michele.sartori@daimler.com

**Mercedes-Benz
TrailerAxleSystems**
P.O. Box 6186
47010 Valladolid, Spain
Phone +34 (0) 629 542 877
Fax +34 (0) 914 846 483
E-Mail
fernando.gonzalez_herran@daimler.com

**Sales Office Northern Europe
Mercedes-Benz
TrailerAxleSystems**
**4, Chantry Court, Sovereign Way
CH1 4QN Chester, England**
Phone +44 (0) 1244 394-222
Fax +44 (0) 1244 394-224
E-Mail gary.smith@daimler.com

**Local Dealer Greece
Technical Agencies
John Mesthaneus and Sons O.E.**
107 Lefkis St.
14568 Krioneri, Athens, Greece
Phone +30 (0) 210 6220316
Fax +30 (0) 210 8161309
E-Mail jamest@otenet.gr

www.dca-family.com