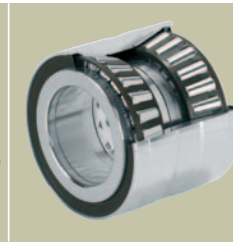
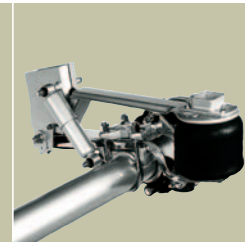
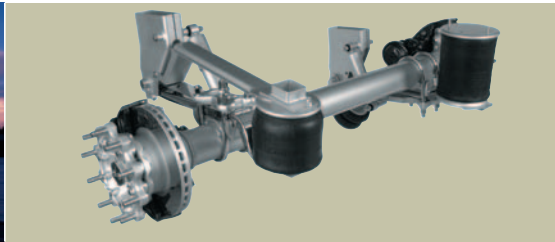


# DAIMLERCHRYSLER



## Operating Instructions and Maintenance Requirements for Trailer Axles featuring DLS Air-Suspension Systems

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DaimlerChrysler AG  
Kassel - Germany

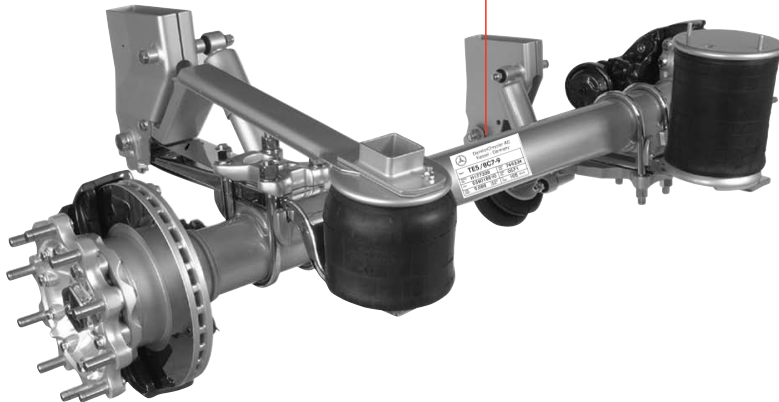
Type **TE5/8C7-9**

Serial No. **H177208** Type des. **749334**

Var. **036018010** TDB No. **0571**

axle load **9.000** kg stat. perm. V max. **105** km/h

Axle Identification plate can be found in the centre of the axle housing



#### Vehicle data

Vehicle manufacturer

Address

Vehicle model

Chassis no.

Delivery

Registration

Axle type

Air-suspension type  
(Order code/ride height)

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## Introduction

The present maintenance booklet is intended to serve as a guide 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 can be performed individually or together, depending on what is best for the individual company.

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

- Complete maintenance
- Maintenance without those items which are also included in the interim and main inspections.

The "daily vehicle check", which must be carried out before starting a journey is one of the driver's obligations and is described in these Operating Instructions.

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

## Data card for trailer axle systems:

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

### Example:

The number stated on the axle identification plate (for example, H177208 as shown here) is entered in the column for the axle end no. in the FDOK 3100 entry screen. Pressing the Enter key then calls up the basic data for the corresponding axle system in the 3112 screen. Pressing the PF6 function key displays an overview of the items of optional equipment which are installed.


## Part identification:

When you reach the start screen of the **EPC System** (directly after entering the WDB vehicle ident. end no.), enter the axle model no. - e.g. 749334 - stated on the axle identification plate or 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 FDOK data so that the parts can be clearly identified.

## Repair instructions:

Instructions for carrying out repairs to DaimlerChrysler axle systems can be found in the **WIS System** by entering the

 DaimlerChrysler AG Kassel - Germany			
<b>Type TE5/8C7-9</b>			
Serial No.	<b>H177208</b>	Type des.	<b>749334</b>
Var.	<b>036018010</b>	TDB No.	<b>0571</b>
axle load	<b>9.000</b>	kg stat. perm.	V max. <b>105</b> km/h

1

'dummy' vehicle ident. end no WDB000001, and then selecting the corresponding axle system on the right-hand side under "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 axle identification plate.

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

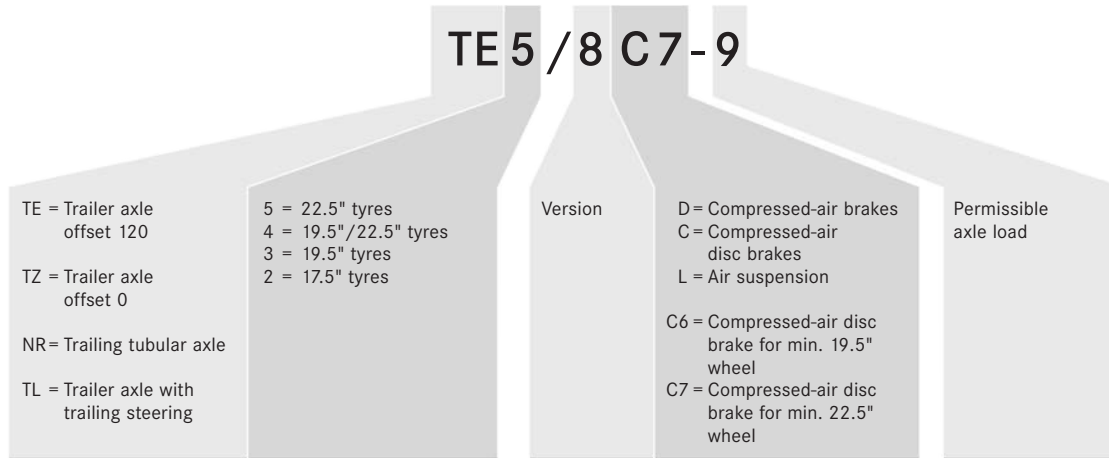


- > AR (test and repair work)
- > Truck
- > Rear axle
- > Rear axle 749
- Suspension (air suspension)
- Rear axle (axle)
- Brakes (brake)

## Notes

# Model designations for trailer and semi-trailer axles

## Example



# Warranty

A well-established network of Mercedes-Benz Service Centres is available to perform the maintenance work for you. All of these workshops with their equipment, tools, specially trained personnel, experience and regular technical training by the plant ensure that your axle will be checked and serviced properly, thoroughly and in accordance with our latest recommendations.

Warranty claims for DaimlerChrysler products can be filed with any authorised Mercedes-Benz Service Centre.

If you have any questions on the warranty, please contact the customer-service department on:

## **D, B, NL, A, CH**

- Telefon +49 (0)561 802-2078
- Fax +49 (0)561 802-2164

## **UK**

- Telefon +44 (0)1244 394-220
- Fax +44 (0)1244 394-224

## **F, E, P, I**

- Telefon +33 (0)499 1337-37
- Fax +33 (0)499 1337-30

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 manner can you ensure that your warranty remains valid. If maintenance services during the warranty period are not performed regularly, within due time or are not performed by an authorised workshop, a decision can only be made regarding warranty claims after an analysis report from the manufacturer has been drawn up.

Special lubricant additives are not required. The use of special additives may limit the scope of the warranty.

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



# Welding instructions

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

- 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 with DaimlerChrysler AG.

## Brake system

### Release of spring-loaded parking brake with insufficient supply pressure in 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 vehicle cannot roll away.**
- **Before starting up vehicle:**  
**Ensure that spring-loaded parking brake is in proper operational state.**  
**Apply parking brake.**

### Mechanical release

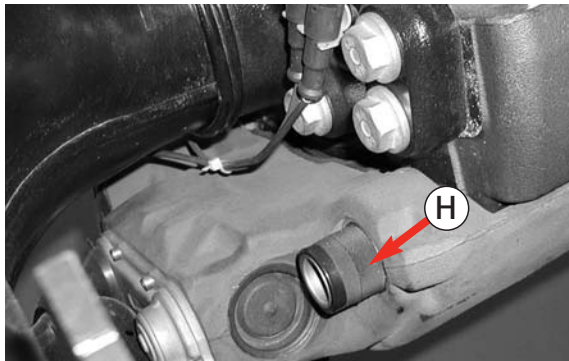
- Screw release screws out to stop (release position).

**Caution! Release torque max. 70 Nm**  
(do not use impact screwdriver)

Returning spring-loaded parking brake to operational state:

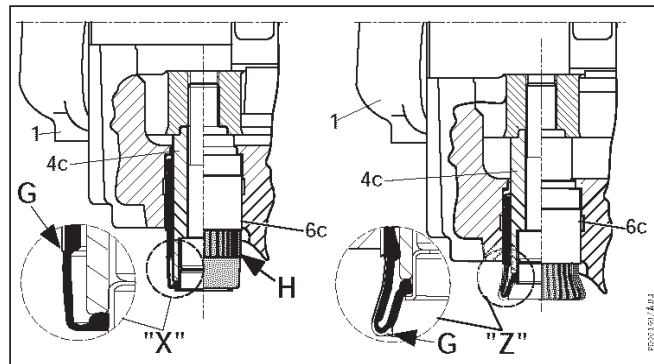
- Fill brake system up to switch-off pressure
- Move lever on parking brake valve to release position
- Completely screw in and tighten release screws (brake position)  
Tightening torque 40-50 Nm

# Checking brake lining thickness



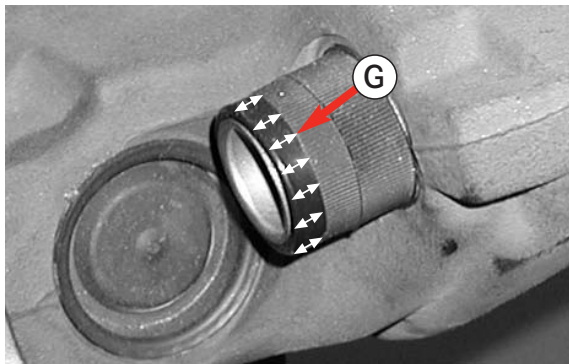
## Checking brake lining wear with brake still fitted (SB7 mod.):

On all axial and 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 curled 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.



## Maintenance specifications

# Axle models TZ5/2 and TZ3/2 with conventional bearing

### Maintenance work

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

### Wheel bearings

Re-pack wheel bearings with new grease every 300,000 km or 24 months. Check taper roller bearings when repacking for re-usability, adjust wheel-bearing play and replace hub seal.

### 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, see Page 9)
  - Check brake callipers *annually* for free movement (sliding), check external sealing boots of bolt guide for leakage
- General annual safety test (ALB, tractor/trailer brake force distribution, etc.): if the tractor vehicle has been changed or has a different braking system than the trailer it is towing, the tractor/trailer brake force distribution must be adjusted. If the brake discs or linings are replaced, check the tappet boots of the brake calliper and replace if necessary.

### Conditions of use

- **Vehicles covering a low mileage:**  
Perform maintenance based on time intervals
- **Vehicles operating under arduous conditions:**  
Shorten maintenance intervals accordingly

### Adjusting wheel-bearing play

<b>Initial tightening torque</b>	Axle nut 380 Nm, turn wheel hub through one rotation
<b>Bearing play</b>	Set to 0.02-0.04 mm
<b>TZ5/2</b>	Tighten counter-nut to 380 Nm,
<b>TZ3/2</b>	secure with tab washer

### Service product specifications

- For airsprings and brass bushes: Renolit HLT2
- For rubber guide sleeve (70.3): Syntheso GL EPI
- For axle stub: DC assembly paste, wheel-bearing grease (part no. A 000 989 63 51)

# Axle models TE5/2, TE4/2, TZ5/4 and TZ4/2 with compact bearing

## Maintenance work

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

## Wheel bearings

Compact bearings, maintenance-free for the first *1 million km*.

## 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, see Page 9)
- Check brake callipers *annually* for free movement (sliding), check external sealing boots of bolt guide for leakage.

General annual safety test (ALB, tractor/trailer brake force distribution, etc.): if the tractor vehicle has been changed or has a different braking system than 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 arduous conditions:**  
Reduce maintenance intervals accordingly

## Maintenance-free compact bearings

Visually check for signs of wear each every time the brake discs are replaced. (e.g. grease leakage)

**N.B.:** the sealing system may become damaged by the brakes overheating.

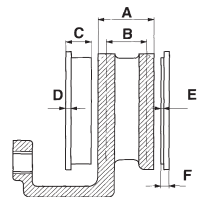
## Axle nuts

- Tighten axle end nut to 700 Nm torque whilst rotating the wheel/hub.
- Use appropriate service tool (W 749 589 00 09 00). Bend the rim of the axle end nut into the keyway on the axle spindle.

## Service product specifications

- Brake callipers/sealing boots and phosphor bronze bushes: Renolit HLT2
- Brake callipers/rubber guide sleeve (70.3): Syntheso GL EPI
- Bearing seat/axle stub: DC assembly Optimol anti-fretting paste (A 000 989 80 51 10)

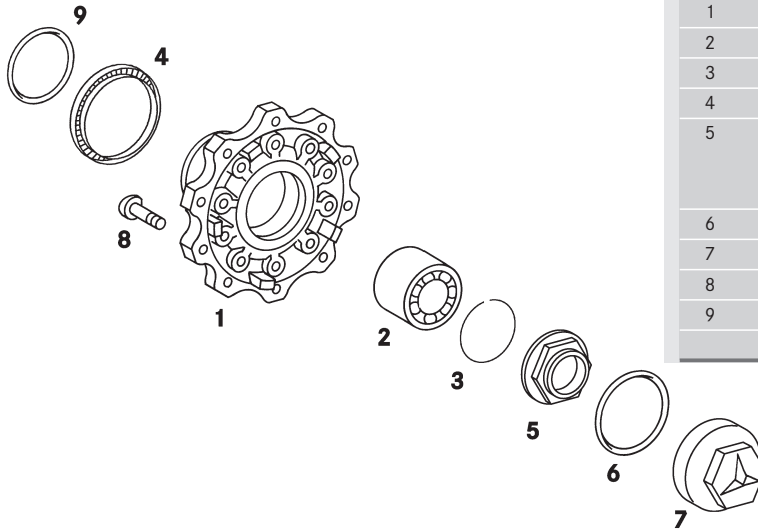
Technical data	Brake model	Brake model
	SB6 19.5"	SB7 22.5"
A Disc thickness	45 mm	45 mm
B Disc wear limit	≤ 37 mm	≤ 37 mm
C Lining thickness	30 mm	30 mm
D Backing plate	9 mm	9 mm
E Minimum lining thickness	2 mm	2 mm
F Absolute minimum thickness	11 mm	11 mm
Disc diameter	370 mm	430 mm
No. of brake pads/axle	4	4



## Wheel bearings

# Axle models TE5/2, TE4/2 (9t/offset 120), TL5/1 and TL4/1 with compact bearing

### Parts illustration

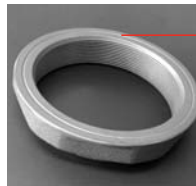


### Parts list

Item no.	Part description	Part no.
1	Wheel hub	A 000 350 05 35
2	Compact Bearing	incl. items 3, 6 & 9
3	Retaining clip	A 946 994 00 35
4	Pole wheel - 90 teeth	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



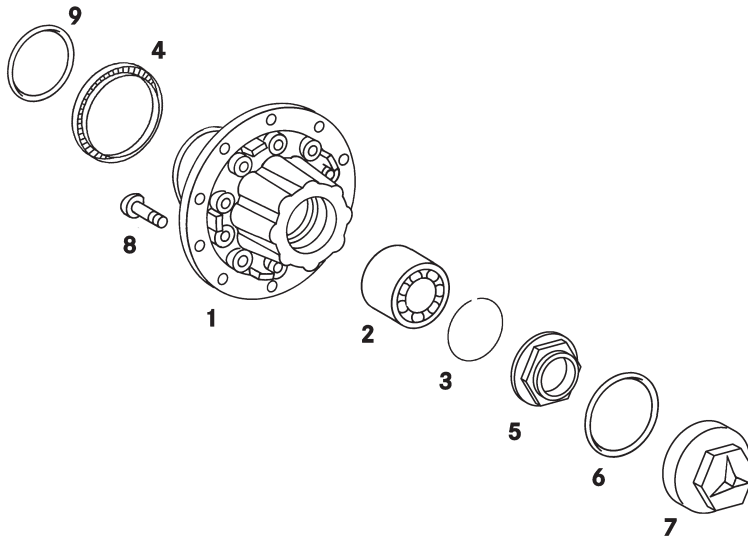
The left-side axle spindle features an engraved legend identifying the left-hand thread.



The rear of the nut with the left-hand thread bears the standard inscription consisting of a groove on the rear.

# Axle models TZ5/4 and TZ4/2 (9t/offset 0) with compact bearing

## Parts illustration

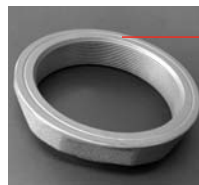


## Parts list

Item no.	Part description	Part no.
1	Wheel hub	A 000 350 09 35
2	Compact Bearing	incl. items 3, 6 & 9
3	Retaining clip	A 946 994 00 35
4	Pole wheel - 90 teeth	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-side axle spindle features an engraved legend identifying the left-hand thread.

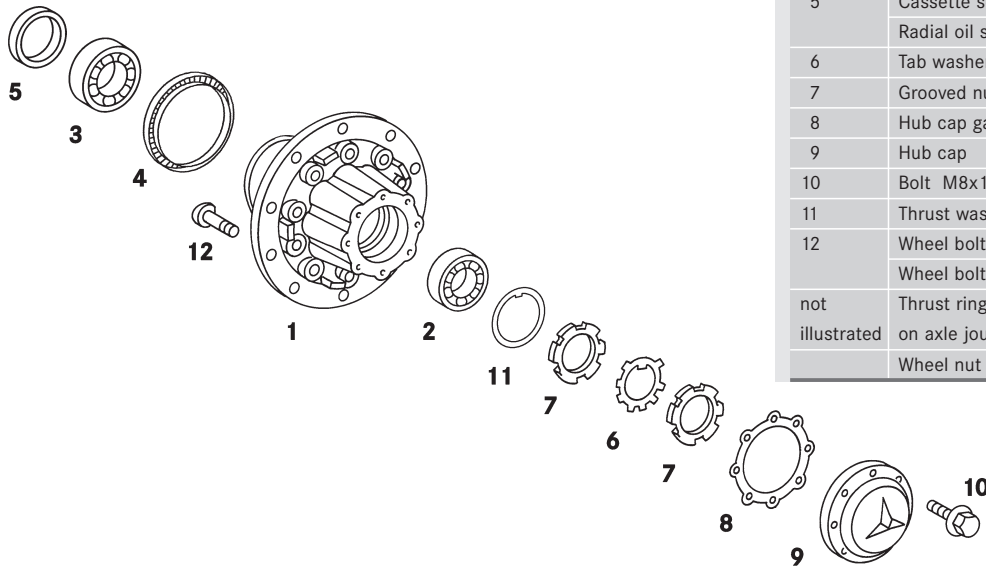


The rear of the nut with the left-hand thread bears the standard inscription consisting of a groove on the rear.

## Wheel bearings

# Twin-wheel axle models TZ5/2 and TZ3/2 (10.5t/offset 0) with conventional bearing

### Parts illustration



### Parts list

Item no.	Part description	Part no.
1	Hub TZ5/2	A 946 356 13 01
	Hub TE3/2	A 946 356 03 01
2	Tapered roller bearing unit 130mm Ø	A 012 981 40 05
3	Tapered roller bearing unit 150mm Ø	A 005 981 85 05
4	Pole wheel TZ5/2	A 385 542 03 17
	Pole wheel TZ3/2	A 946 334 01 15
5	Cassette seal TZ5/2	A 021 997 69 47
	Radial oil seal TZ3/2	A 019 997 48 47
6	Tab washer	A 976 356 00 73
7	Grooved nut	A 976 356 00 26
8	Hub cap gasket	A 943 334 00 80
9	Hub cap	A 327 356 01 20
10	Bolt M8x16	N 910 105 008 008
11	Thrust washer	A 976 356 00 52
12	Wheel bolt M22x1.5x80 depending on	A 389 401 00 71
	Wheel bolt M22x1.5x110 wheel version	A 381 401 07 71
not illustrated	Thrust ring Ø120xØ100x21	A 675 356 02 15
	on axle journal	
	Wheel nut (not illustrated)	A 000 401 06 72

# Brake cylinder (WABCO)

Cylinder size	Part no.	Lift
16/16" (0715)	A 014 420 61 18	57mm
16/16"	A 017 420 88 18	57mm
16/16"	A 017 420 89 18	57mm
16"	A 006 420 52 24	57mm
16/24"	A 018 420 52 18	57mm
16/24"	A 018 420 53 18	57mm
20"	A 007 420 12 24	62mm
20/24"	A 018 420 55 18	64mm
20/24"	A 018 420 56 18	64mm
22"	A 007 420 13 24	62mm
24"	A 007 420 14 24	62mm

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

**Caution: When replacing brake cylinders, always remove the lower most drain plug from the front chamber housing. Failure to do so may result in chamber or calliper damage!**

N.B.: Please note the different installation positions for left and right sides on brake cylinders (16/16", etc.).



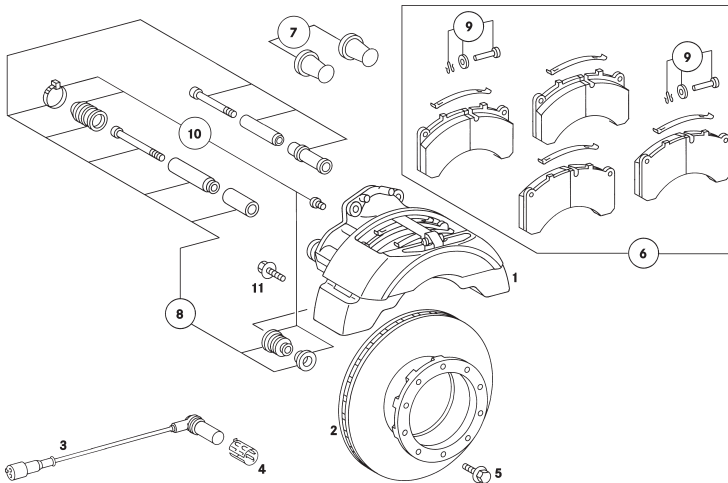
## Brakes

Disc brake 19.5" for TZ3/2, made by Knorr, SB6 mod. (conventional bearing)

Disc brake 22.5", made by Knorr, SB7 mod. (compact bearing)

Disc brake 19.5", made by Knorr, SB6 mod. (compact bearing)

### Parts illustration



### Parts list for model SB6-19.5"

(conventional bearing)

Item no.	Part description	Part no.
1	Brake caliper, left, complete	A 975 420 26 01
	Brake caliper, right, complete	A 975 420 27 01
	Half caliper Repair solution, left, actuating unit	A 002 420 37 83
	Half Caliper Repair solution, right, actuating unit	A 002 420 36 83
2	Brake disc	A 975 423 06 12
3	ABS sensor	A 002 542 31 18
4	Bush for sensor	A 975 542 00 50
5	Bolt TZ3 14x1.5x55	N 000 000 000 110
6	Brake lining set (for 1 axle)	A 002 420 78 20
7	Tappet & boot set (for pistons)	A 000 420 06 82
8	Slide pin kit (guide pins)	A 000 420 34 82
9	Pad retaining pin kit (lining holder)	A 000 420 25 82
10	Boot Kit for Slide Pins (no guide pins inc)	A 002 420 03 83
11	Shoulder bolt	N 910 105 016 005

**Parts list for model SB7 mod. –22.5"**

(compact bearing)

Item no.	Part description	Part no.
1	Brake caliper, left, complete	A 942 420 67 01
	Brake caliper, right, complete	A 942 420 68 01
	Half Caliper Repair solution, left, actuating unit	A 002 420 49 83
	Half Caliper Repair solution, right, actuating unit	A 002 420 50 83
2	Brake disc	A 942 421 21 12
3	ABS sensor	A 002 542 31 18
4	Bush for sensor	A 355 542 02 73
5	Bolt TE5 14x1.5x75	A 004 990 59 04
6	Brake lining set (for 1 axle)	A 002 420 49 20
7	Tappet & boot set (for pistons)	A 000 420 23 82
8	Slide pin kit (guide pins)	A 000 420 34 82
9	Pad retaining pin kit (lining holder)	A 000 420 25 82
10	Boot kit for Slide Pins (no guide pins inc)	A 001 420 52 83
11	Bolt M16x1.5x60	N 910 105 016 005
	Shoulder bolt	A 942 990 01 14
	Bracket for lining wear indicator/ABS connector (not illustrated)	A 946 328 19 40
	Lining wear sensor kit (not illustrated)	A 946 542 01 18

**Parts list for model SB6 mod. –19.5"**

(compact bearing)

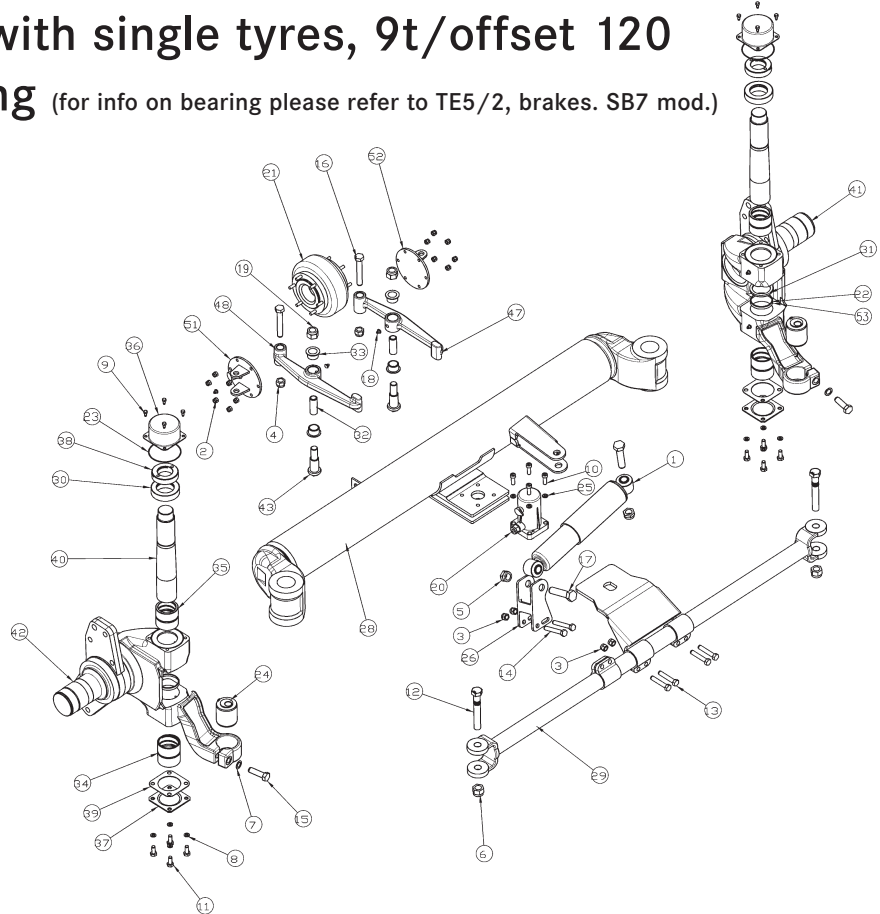
Item no.	Part description	Part no.
1	Brake caliper, left, complete	A 946 420 15 01
	Brake caliper, right, complete	A 946 420 16 01
	Half Caliper Repair solution, left, actuating unit	A 002 420 37 83
	Half Caliper Repair solution, right, actuating unit	A 002 420 36 83
2	Brake disc	A 675 421 00 12
3	ABS sensor	A 002 542 31 18
4	Bush for sensor	A 355 542 02 73
5	Bolt TE5 14x1.5x70	N 910 105 014 009
6	Brake lining set (for 1 axle)	A 002 420 78 20
7	Tappet & boot set (for pistons)	A 000 420 23 82
8	Slide pin kit (guide pins)	A 000 420 34 82
9	Pad retaining pin kit (lining holder)	A 000 420 25 82
10	Boot kit for Slide Pins (no guide pins inc)	A 001 420 52 83
11	Bolt M16x1.5x60	N 910 105 016 005
	Shoulder bolt	A 942 990 01 14
	Bracket for lining wear indicator/ABS connector (not illustrated)	A 946 328 19 40
	Lining wear sensor kit (not illustrated)	A 946 542 01 18

## Axle system

**Axle model TL4/1 with single tyres, 9t/offset 120  
and compact bearing** (for info on bearing please refer to TE4/2, brakes. SB6 mod.)

**Axle model TL5/1 with single tyres, 9t/offset 120  
and compact bearing** (for info on bearing please refer to TE5/2, brakes. SB7 mod.)

### Parts illustration



**Parts list for TL4/1 and TL5/1**

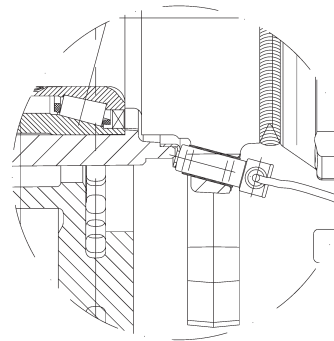
Item no.	Part description	Part no.
1	Vibration damper	A 946 393 00 47
2	Nut M8	N 913 023 008 003
3	Nut M12x1.5 (damper bracket)	N 913 023 012 002
5	Nut M20x1.5 (damper)	N 913 023 020 001
7	Washer	A 946 391 00 76
9	Bolt M8x16, top cover	N 910 142 008 002
10	Bolt M10x30, locking cylinder	N 910 142 010 007
11	Bolt M10x25, bottom cover	N 910 105 010 009
13	Bolt M12x1.5x65 (clamps)	N 910 105 012 019
14	Bolt M12x1.5x80 (damper bracket)	N 910 105 012 012
15	Clamping bolt M16x1.5x55	N 910 105 016 018
20	Locking cylinder	A 946 391 00 22
21	Airspring	A 946 393 00 77
25	Washer	A 946 391 02 76
26	Bracket for vibration damper	A 946 391 06 40
28	Axle tube, complete axle housing only	
29	Track rod for wheel tracks 2040	A 946 390 05 07
	Track rod for wheel tracks 2095	A 946 390 06 07
	Track rod for wheel tracks 2140	A 946 390 07 07
36	Top cover	A 946 391 02 20
37	Bottom cover	A 946 391 01 20
38	Clamping nut	A 946 332 00 72
40	Axle stub bolt	A 946 393 00 74
41	Stub axle, on left when viewed in direction of travel	A 946 390 05 44
42	Stub axle, on right when viewed in direction of travel	A 946 390 06 44
51	Plate (pneumatics connection)	A 946 391 00 41
52	Plate	A 946 391 01 41

Item no.	Repair solution description	Part no.
<b>A</b>	<b>Adjusting lever</b> includes items nos. 4, 16, 18, 19, 32, 33, 43, 47, 48	A 000 390 00 27
	<b>B</b>	<b>Track rod adjustment</b> includes items nos. 6, 12, 24
<b>C</b>	<b>Axle stub bearing</b> includes items nos. 22, 23, 30, 31, 34, 35, 39, 53	A 000 330 06 20

**Supplementary maintenance work**

Lubrication intervals of 6 months, no load should be placed on axle during lubrication. Total toe-in 2-4 mm, adjustable using the eccentric bush (see item 24 in parts illustration).

**Parts illustration for version with 15° ABS**

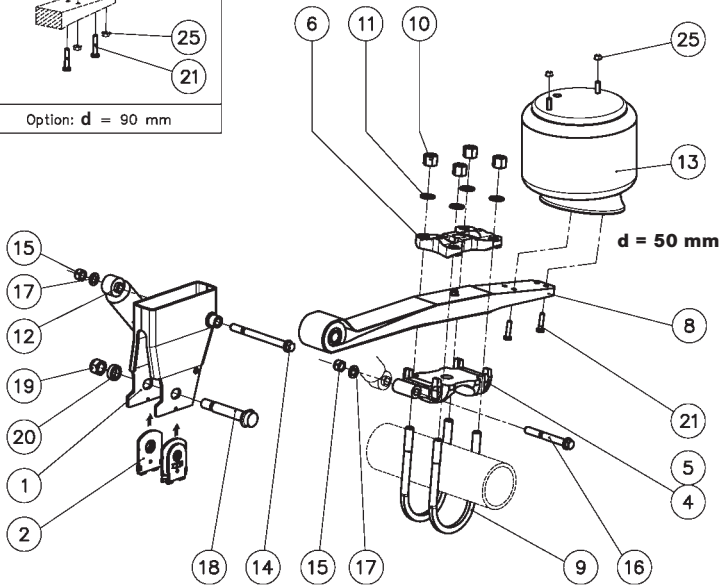
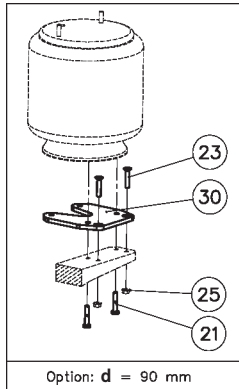


## Air suspension

# Ride height 450 (ride-height range 450-490)

Order code: 0700

### Parts illustration



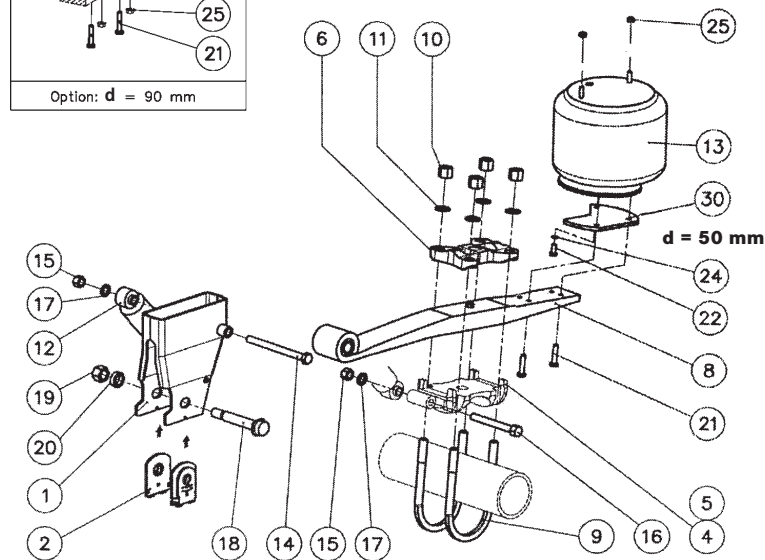
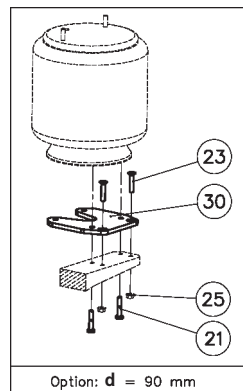
### Parts list

Item no.	Part description	Part no.
1	Hanger Bracket H285	A 946 320 25 78
2	Tracking/Wear Plate for hanger Bracket	A 946 323 00 90
4	Spring seat, left overslung linkarm	Not available separately
5	Spring seat, right overslung linkarm	Not available separately
6	U-Bolt plate for left and right overslung linkarms	A 946 328 28 35
8	Linkarm 1x54	A 946 350 03 06
9	U-Bolt	A 946 325 03 47
10	Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 02 00
13	Airspring $\varnothing 360 \text{ L}$	A 946 328 15 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot washer $\varnothing 30/\varnothing 46 \times 14$	A 946 990 08 40
25	Nut M12x1.75	A 946 990 02 50
<b>90 mm offset:</b>		
21	Bolt M12x60	N 304 017 012 003
23	Countersunk Allen bolt M12x60	A 946 990 07 01
25	Nut M12x1.75	A 946 990 02 50
30	90mm offset plate for airspring	A 946 328 26 35
<b>50 mm offset:</b>		
21	Bolt M12x50	N 304 017 012 018

# Ride height 390 (ride-height range 390-420)

Order code: 0701

## Parts illustration



## Parts list

Item no.	Part description	Part no.
1	Hanger Bracket H230	A 946 320 31 78
2	Tracking/Wear plate for Hanger Bracket	A 946 323 00 90
4	Spring seat, left overslung linkarm	Not available separately
5	Spring seat, right overslung linkarm	Not available separately
6	U-Bolt plate for left and right overslung linkarms	A 946 328 28 35
8	Linkarm 1x54	A 946 350 03 06
9	U-Bolt	A 946 325 03 47
10	Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 02 00
13	Airspring $\varnothing 360 \text{ K}$	A 946 328 19 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot washer $\varnothing 30/\varnothing 46 \times 14$	A 946 990 08 40
25	Nut M12x1.75	A 946 990 02 50
<b>90 mm offset:</b>		
21	Bolt M12x60	N 304 017 012 003
23	Countersunk Allen bolt M12x60	A 946 990 07 01
25	Nut M12x1.75	A 946 990 02 50
30	90mm offset plate for airspring	A 946 328 26 35
<b>50 mm offset:</b>		
21	Bolt M12x50	N 304 017 012 003
22	Pivot bolt M12x30	A 946 990 01 01
24	Lock washer M12	A 946 990 00 47
30	50mm offset plate for airspring	A 946 328 25 35





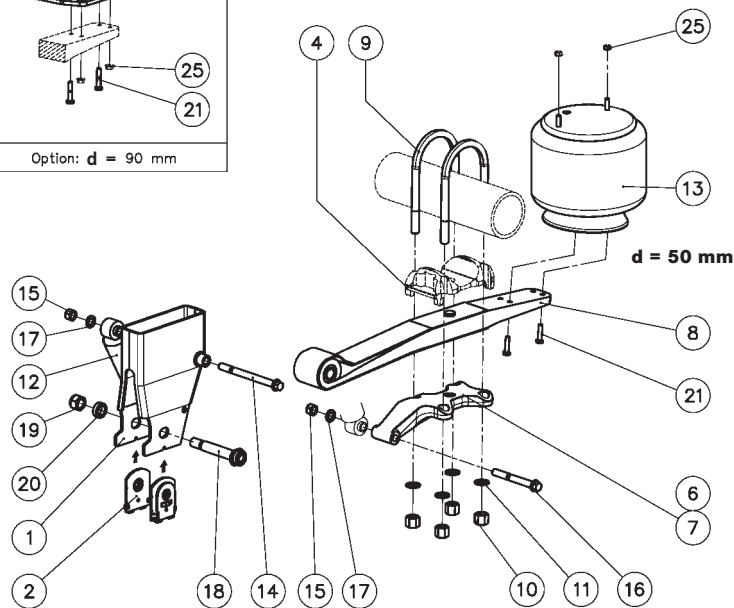
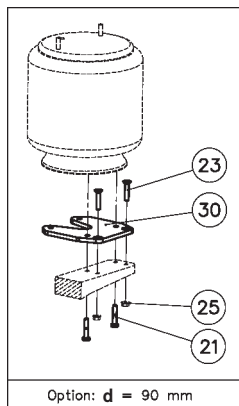




# Ride height 250 (ride-height range 210-260)

Order code: 0715

## Parts illustration



## Parts list

Item no.	Part description	Part no.
1	Hanger Bracket H255	A 946 320 64 78
2	Tracking/Wear Plate for Hanger Bracket	A 946 323 00 90
4	Spring seat	Not available separately
6	U-Bolt Plate for Suspension Linkarm Left	A 946 328 31 35
7	U-Bolt Plate for Suspension Linkarm Right	A 946 328 32 35
8	Linkarm 1x54	A 946 350 14 06
9	U-Bolt	A 946 325 03 47
10	U-Bolt Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 08 00
13	Airspring $\varnothing 360$ L	A 946 328 15 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot Washer $\varnothing 30/\varnothing 46 \times 14$	A 946 990 08 40
25	Nut M12x1.75	A 946 990 02 50
<b>90 mm offset:</b>		
21	Bolt M12 x 60	N 304 017 012 003
23	Countersunk Allen bolt M12x60	A 946 990 07 01
25	Nut M12x1.75	A 946 990 02 50
30	90mm offset plate for airspring	A 946 328 26 35
<b>50 mm offset:</b>		
21	Pivot bolt M12x50	N 304 017 012 018

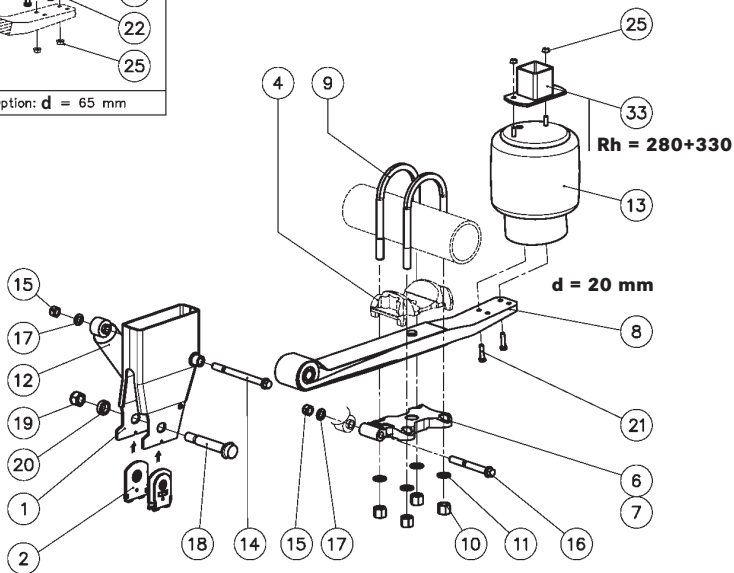
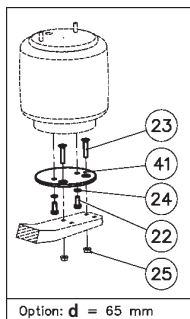
## Air suspension

a. Ride height 280 (ride-height range 280-305)

b. Ride height 330 (ride-height range 305-355)

Order code: 0720

### Parts illustration



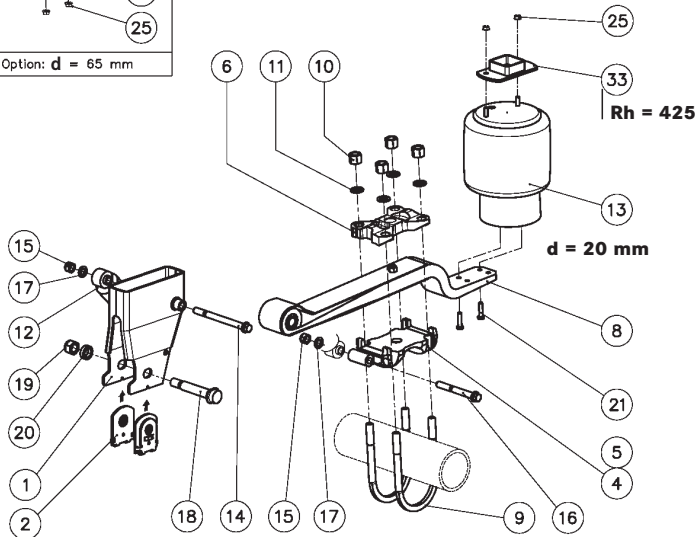
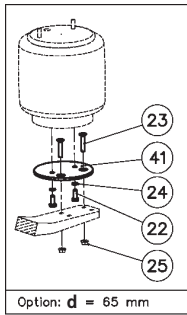
### Parts list

Item no.	Part description	Part no.
1	Hanger Bracket H335	A 946 320 27 78
2	Tracking/Wear Plate for Hanger Bracket	A 946 323 00 90
4	Spring Seat	Not available separately
6	U-Bolt Plate for Suspension Linkarm Left	A 946 328 29 35
7	U-Bolt Plate for Suspension Linkarm Right	A 946 328 30 35
8	Linkarm 1x48	A 946 350 02 06
9	U-Bolt	A 946 325 03 47
10	Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 03 00
13	Airspring Ø 300	A 946 328 14 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot washer Ø30/Ø46x14	A 946 990 08 40
25	Nut M12x1.75	A 946 990 02 50
33 a.	Airspring Pedestal C=50mm	A 946 320 03 35
33 b.	Airspring Pedestal C=100mm	A 946 320 06 35
<b>20 mm offset (standard):</b>		
21	Bolt M12x50	N 304 017 012 018
<b>65 mm offset:</b>		
22	Bolt M12x30	A 946 990 01 01
23	Countersunk Allen bolt M12x60	A 946 990 07 01
24	Lock washer M1/2"	A 946 990 00 47
25	Nut M12x1.75	A 946 990 02 50
41	65mm offset plate	A 946 328 27 35

- a. Ride height 375 (ride-height range 350-400)  
 b. Ride height 425 (ride-height range 400-450)

Order code: 0730

### Parts illustration



### Parts list

Item no.	Part description	Part no.
1 a.	Hanger Bracket H230	A 946 320 31 78
1 b.	Hanger Bracket H280	A 946 320 33 78
2	Tracking/Wear Plate for Hanger Bracket	A 946 323 00 90
4	Spring Seat for left overslung linkarm	Not available separately
5	Spring Seat for right overslung linkarm	Not available separately
6	U-Bolt plate for left and right overslung linkarms	A 946 328 28 35
8	Linkarm 1x48mm	A 946 350 01 06
9	U-Bolt	A 946 325 03 47
10	Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 03 00
13	Airspring Ø 300	A 946 328 14 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot washer Ø 30 / Ø 46 x 14	A 946 990 08 40
25	Nut M12x1.75	A 946 990 02 50
33 b.	Airspring Pedestal C=50mm	A 946 320 03 35
<b>20 mm offset (standard):</b>		
21	Bolt M12x50	N 304 017 012 018
<b>65 mm offset:</b>		
22	Pivot bolt M12 x 30	A 946 990 01 01
23	Countersunk Allen bolt M12x60	A 946 990 07 01
24	Lock washer M1/2"	A 946 990 00 47
25	Nut M12x1.75	A 946 990 02 50
41	65mm offset plate	A 946 328 27 35

## Air suspension

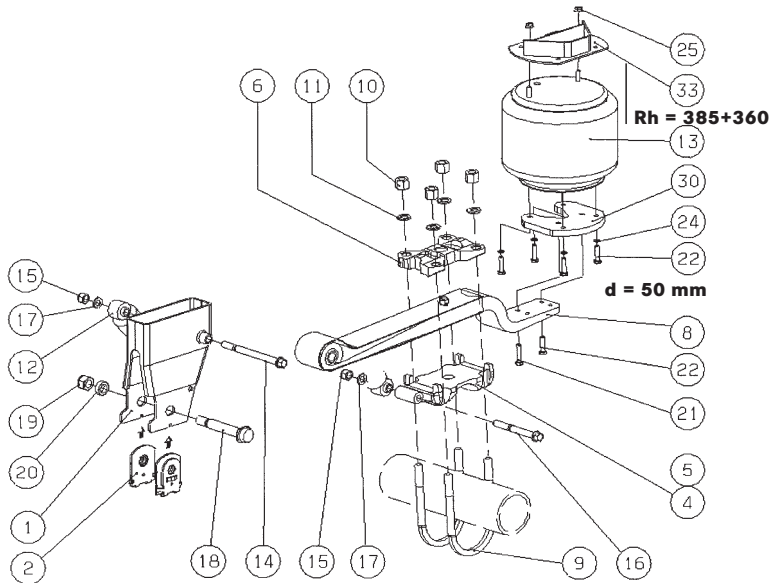
a. Ride height 385 (ride-height range 385-450)

b. Ride height 335 (ride-height range 335-400)

c. Ride height 360 (ride-height range 360-410)

Order code: 0731

### Parts illustration



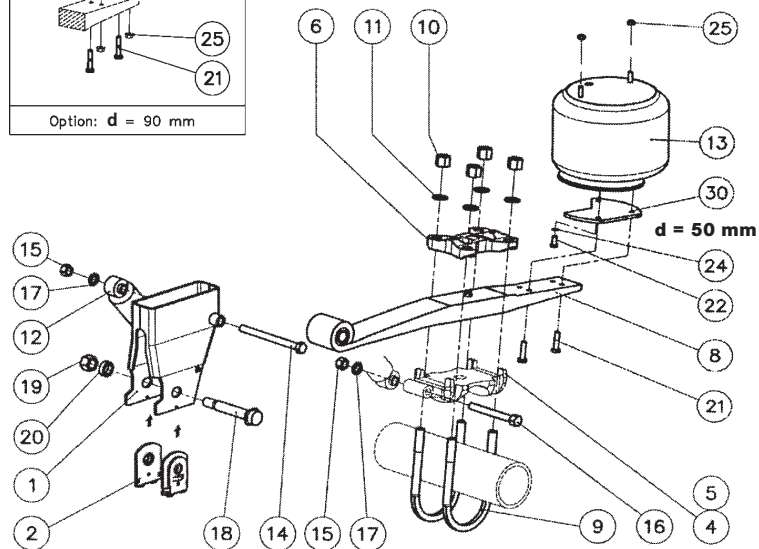
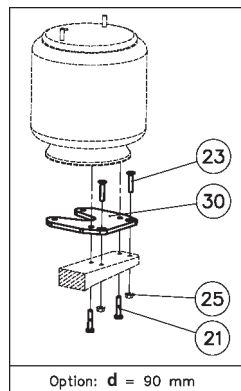
### Parts list

Item no.	Part description	Part no.
1 a.	Hanger Bracket H280	A 946 320 33 78
1 b.	Hanger Bracket H230	A 946 320 31 78
1 c.	Hanger Bracket H230	A 946 320 31 78
2	Tracking/Wear Plate for Suspension Bracket	A 946 323 00 90
4	Spring Seat for left overslung linkarm	Not available separately
5	Spring Seat for right overslung linkarm	Not available separately
6	U-Bolt plate for left and right overslung linkarms	A 946 328 28 35
8	Linkarm 1x48mm	A 946 350 01 06
9	U-Bolt	A 946 325 03 47
10	Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 03 00
13	Airspring Ø 360 K	A 946 328 19 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot washer Ø30/Ø46x14	A 946 990 08 40
21	Bolt M12x50	N 304 017 012 018
22	Bolt M12x30	A 946 990 01 01
24	Lock washer M1/2"	A 946 990 00 47
25	Nut M12x1.75	A 946 990 02 50
30	50mm offset plate for airspring	A 946 328 25 35
33 a.	Airspring Pedestal C=50mm	A 946 320 03 35
33 c.	Airspring Pedestal C=50mm	A 946 320 03 35

# Ride height 410 (ride-height range 410-450)

Order code: 0780

## Parts illustration



## Parts list

Item no.	Part description	Part no.
1	Hanger Bracket H285	A 946 320 25 78
2	Tracking/Wear Plate for Hange Bracket	A 946 323 00 90
4	Spring Seat for left overslung linkarm	Not available separately
5	Spring Seat for right overslung linkarm	Not available separately
6	U-Bolt plate for left and right overslung linkarms	A 946 328 28 35
8	Linkarm 1x54	A 946 350 03 06
9	U-Bolt	A 946 325 03 47
10	Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 03 00
13	Airspring $\varnothing 360 \text{ K}$	A 946 328 19 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot washer $\varnothing 30/\varnothing 46 \times 14$	A 946 990 08 40
25	Nut M12x1.75	A 946 990 02 50
<b>90 mm offset:</b>		
21	Bolt M12 x 60	N 304 017 012 003
23	Countersunk Allen bolt M12x60	A 946 990 07 01
25	Nut M12x1.75	A 946 990 02 50
30	90mm offset plate for airspring	A 946 328 26 35
<b>50 mm offset:</b>		
21	Bolt M12x60	N 304 017 012 003
22	Bolt M12x30	A 946 990 01 01
24	Lock washer M1/2"	A 946 990 00 47
30	50mm offset plate for airspring	A 946 328 25 35

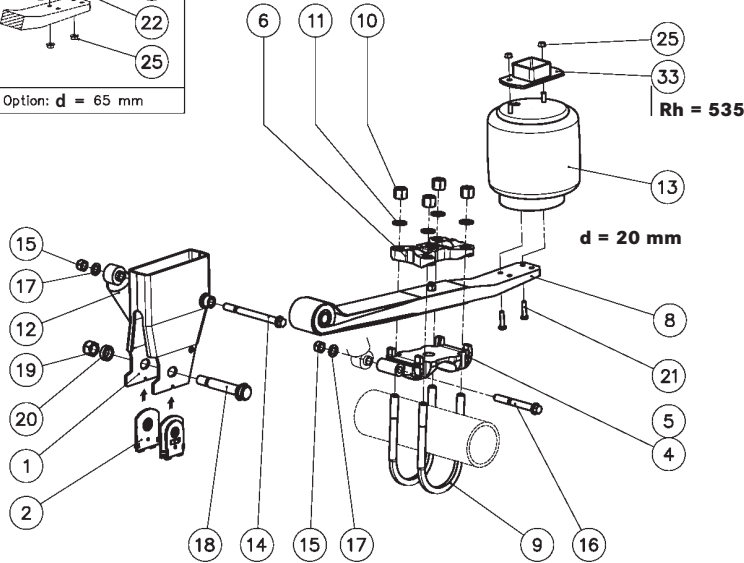
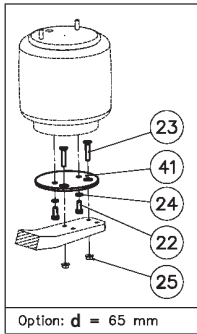
## Air suspension

a. Ride height 485 (ride-height range 450-520)

b. Ride height 535 (ride-height range 500-570)

Order code: 0795

### Parts illustration

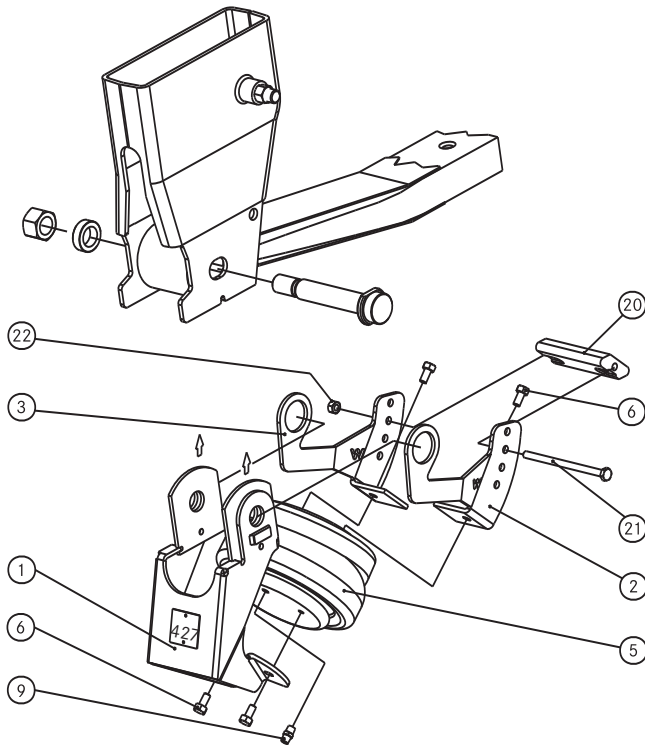


### Parts list

Item no.	Part description	Part no.
1 a.	Hanger Bracket H285	A 946 320 25 78
1 b.	Hanger Bracket H335	A 946 320 27 78
2	Tracking/Wear Plate for Hanger Bracket	A 946 323 00 90
4	Spring Seat	Not available separately
6	U-Bolt plate for left and right overslung linkarms	A 946 328 28 35
8	Linkarm 1x48mm	A 946 350 11 06
9	U-Bolt	A 946 325 03 47
10	Nut M24x2	A 946 990 10 50
11	Washer M24	A 946 990 02 40
12	Shock absorber	A 946 326 03 00
13	Airspring Ø 300	A 946 328 14 01
14	Bolt M20x2x240	A 946 990 17 01
15	Nut M20x2	A 946 990 00 51
16	Bolt M20x2x175	A 946 990 16 01
17	Washer M20	N 000 000 002 968
18	Pivot bolt M27x186	A 946 990 00 14
19	Pivot nut M27	A 946 990 01 51
20	Pivot washer Ø30/Ø46x14	A 946 990 08 40
25	Nut M12x1.75	A 946 990 02 50
33 b.	Airspring Pedestal C=50mm	A 946 320 03 35
<b>20 mm offset:</b>		
21	Bolt M12x50	N 304 017 012 018
<b>65 mm offset:</b>		
22	Bolt M12 x 30	A 946 990 01 01
23	Countersunk Allen bolt M12x60	A 946 990 07 01
24	Lock washer M1/2"	A 946 990 00 47
25	Nut M12x1.75	A 946 990 02 50
41	65mm offset plate	A 946 328 27 35

# Dual-side lift, "Bolt on" version

## Parts illustration



## Parts list

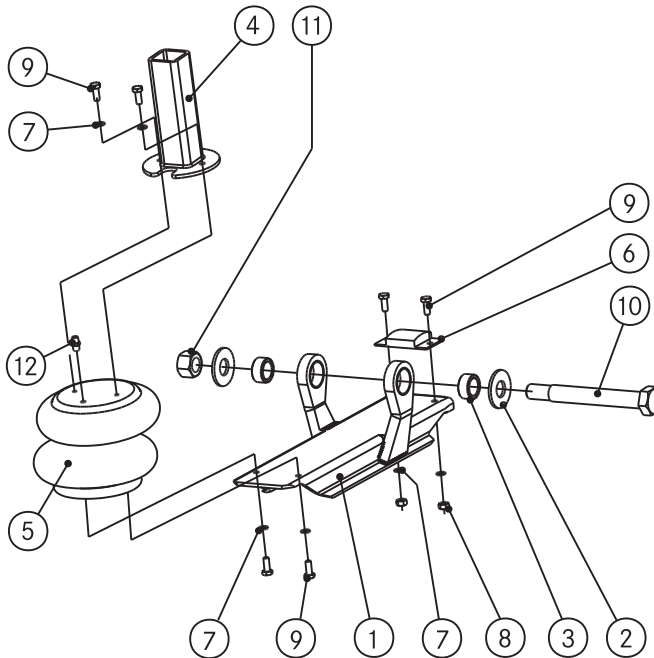
Item no.	Part description	Part no.
1	Airspring support cradle	A 946 328 20 40
2	Airspring Fixing Bracket top, left	A 946 328 21 40
3	Airspring Fixing Bracket top, right	A 946 328 22 40
5	Lift Airspring	A 946 328 16 01
6	Hex bolt M10x20	A 946 990 08 01
9	Adaptor	A 946 328 02 64
20	Rubber stop	A 946 325 00 44
21	Hex bolt M10x160	A 946 990 02 01
22	Nut M10	A 946 990 09 50



## Air suspension

# Dual-side lift, “pivoted” version

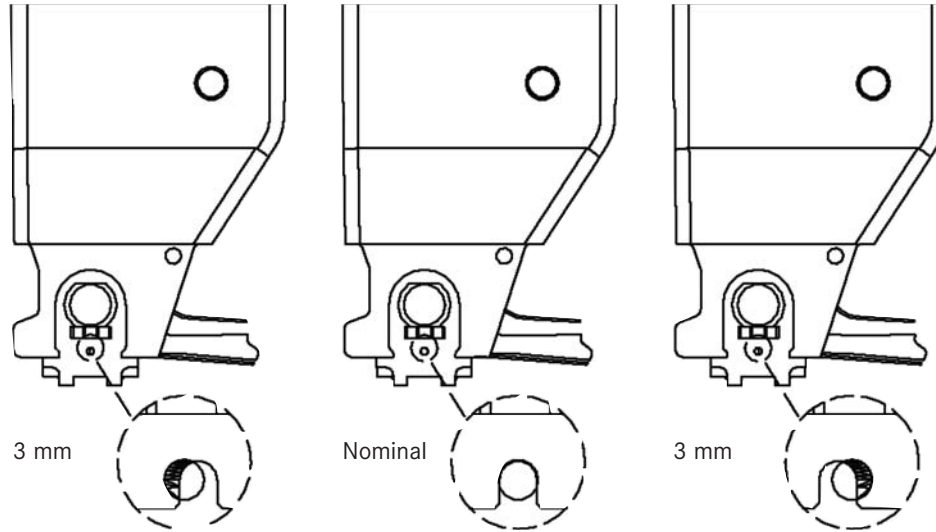
### Parts illustration



### Parts list

Item no.	Part description	Part no.
1	Axle lift arm	A 946 350 07 06
2	Washer Ø31/70	A 946 328 01 50
3	Washer Ø31/45	A 946 328 02 50
4	Airspring pedestal (lift airspring)	A 946 328 69 35
5	Lift Airspring	A 946 328 16 01
6	Rubber stop	A 946 325 01 44
7	Lock washer 10	A 946 990 01 47
8	Nut M10x1.5	A 946 990 09 50
9	Hex bolt M27x240	A 946 990 05 01
10	Pivot Bolt M27x240	A 946 328 00 74
11	Pivot nut M27	A 946 990 01 51
12	Adaptor	A 946 328 02 64

# Axle tracking

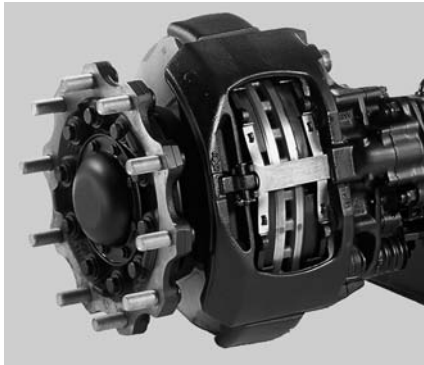


An oval hole in the hanger brackets means the pivot bolt has an adjustment range of 6 mm.

**Important: do not exceed the tightening torques indicated on pages 34 and 35!**

# Tightening torques

## Conventional bearing system



Wheel nut  
Brake disc on hub  
Brake cylinder mounting  
Brake calliper mounting

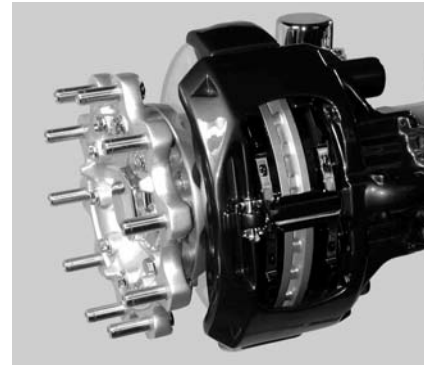
**Initial torque** Axle nut 240 Nm, turn wheel hub through one rotation

**Bearing play** Adjust to 0.02-0.04 mm

**TZ5/2**  
**TZ3/2** { Tighten counter-nut to 380 Nm, secure with tab washer

**Hub cap** Bolted, M8 43 Nm

## Compact bearing



M22 x 1.5: 600 Nm  
M14 x 1.5: 181 Nm  
M16 x 1.5: 180 Nm  
M16 x 1.5: 260 Nm

**Initial torque** Axle nut 700 Nm

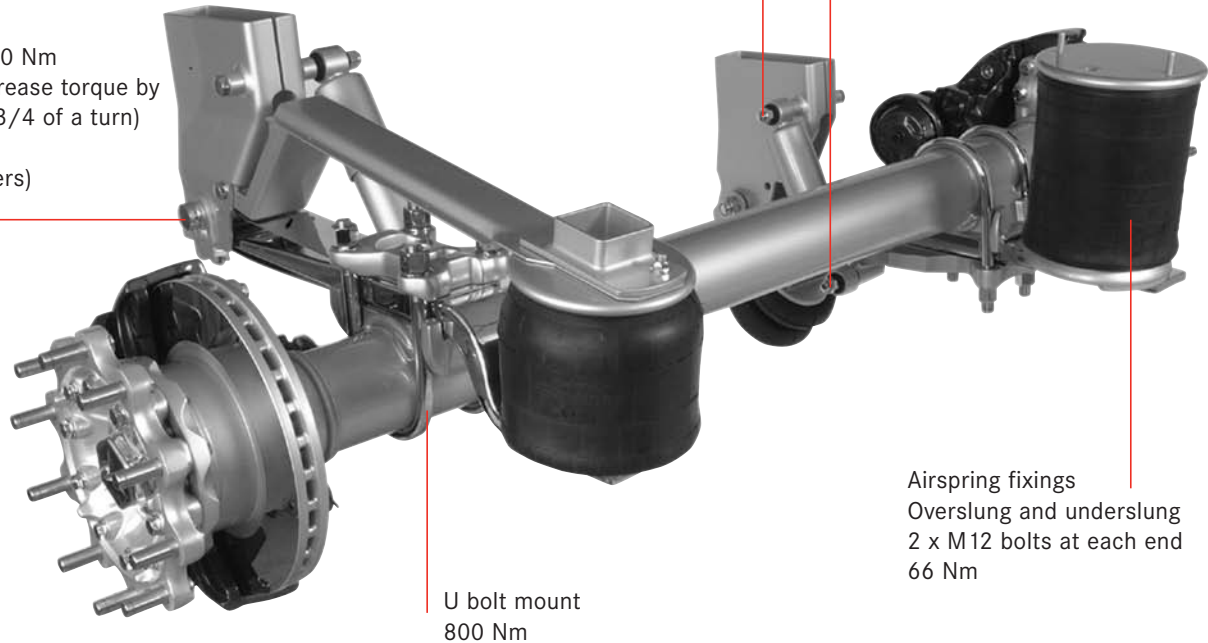
**Bearing play** Bearing play not adjustable

**Hub cap** Press-fit hub cap

# Tightening torques

Pivot bolt nut  
Initial torque: 250 Nm  
Final torque: Increase torque by  
a further 270° (3/4 of a turn)  
rotation of a nut  
(4 1/2 nut corners)

Shock absorber mounting  
Initial torque: 200 Nm  
Final torque: Increase torque by a  
further 180° rotation of the nut  
(3 nut corners)



Airspring fixings  
Overslung and underslung  
2 x M12 bolts at each end  
66 Nm

Tolerance  $\pm 3\%$

# Inspections and maintenance

## **Before starting every trip**

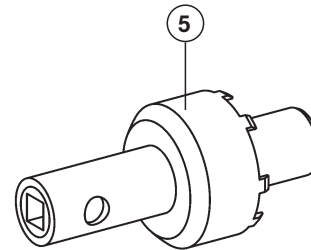
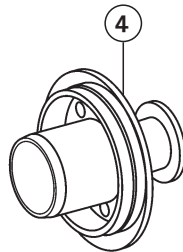
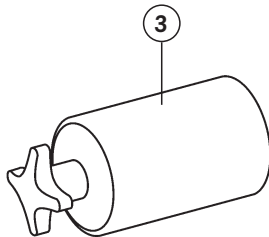
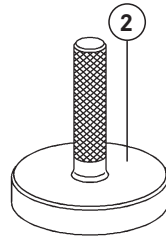
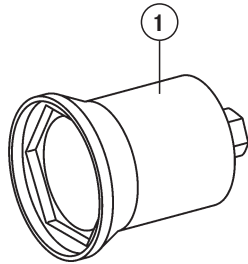
- Ensure that the compressed-air reservoirs for the braking system and air suspension are up to full operating pressure.
- Check airsprings for creasing or signs of damage.

## **After the first two weeks, then at least once a year**

- Perform a visual inspection of the bolted connections around the pivot bolts, shock-absorber mountings and the U bolt nuts, paying particular attention to signs of paint cracks on the periphery of the connection and signs of rust.  
Cracks and fissures in the area adjacent to the connections is a sign of movement at the mounting. You should respond by retightening the connection to the specified torque.

# Tools

## Parts illustration



## Replacement component designations

Item no.	Part description	Part no.
1	Socket for hex. axle end nut M80x1.5	W 749 589 00 09 00
2	Drift for fitting oil seal insertion tool	W 389 589 00 15 00
3	Assembly aid for compact bearing hub	W 749 589 00 14 00
4	Drift for fitting ABS pole wheel	W 749 589 00 15 00
5	Claw spanner attachment for slotted round nut on TZ5/TZ3	W 749 589 02 07 00

## Maintenance work

<input type="checkbox"/>	Bolt connections checked and retightened to specified tightening torque	
<input type="checkbox"/>	Wheel bearing play checked	
<input type="checkbox"/>	Wheel bearings regreased and new seal fitted	To be performed only on axle systems with conventional bearings
<input type="checkbox"/>	Wheel bearings replaced	
<input type="checkbox"/>	Wheel bearing play adjusted	
<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 and parking brakes checked	

Authorised workshop stamp

Brake lining check	Remaining brake lining thickness (see page 9)	Lining replaced
1. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
1. First axle, right	<input type="text"/> mm	<input type="checkbox"/>
2. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
2. First axle, right	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, right	<input type="text"/> mm	<input type="checkbox"/>

Brand of wheel bearing	<input type="text"/>
Mileage	<input type="text"/>
Repair order no.	<input type="text"/>
Date	<input type="text"/>
Signature	<input type="text"/>

<input type="checkbox"/>	Bolt connections checked and retightened to specified tightening torque	
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2. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
2. First axle, right	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, right	<input type="text"/> mm	<input type="checkbox"/>

Brand of wheel bearing	<input type="text"/>
Mileage	<input type="text"/>
Repair order no.	<input type="text"/>
Date	<input type="text"/>
Signature	<input type="text"/>

Authorised workshop stamp



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<input type="checkbox"/>	Brake lining wear checked	
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<input type="checkbox"/>	Braking effect of service and parking brakes checked	

Authorised workshop stamp

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1. First axle, right	<input type="text"/> mm	<input type="checkbox"/>
2. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
2. First axle, right	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, right	<input type="text"/> mm	<input type="checkbox"/>

Brand of wheel bearing	<input type="text"/>
Mileage	<input type="text"/>
Repair order no.	<input type="text"/>
Date	<input type="text"/>
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2. First axle, right	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, left	<input type="text"/> mm	<input type="checkbox"/>
3. First axle, right	<input type="text"/> mm	<input type="checkbox"/>

Brand of wheel bearing	<input type="text"/>
Mileage	<input type="text"/>
Repair order no.	<input type="text"/>
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Authorised workshop stamp



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