

TECHNICAL DATA

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SHOCK ABSORBERS

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STABILISERS AND TORQUE RODS

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REAR AXLE ALIGNMENT

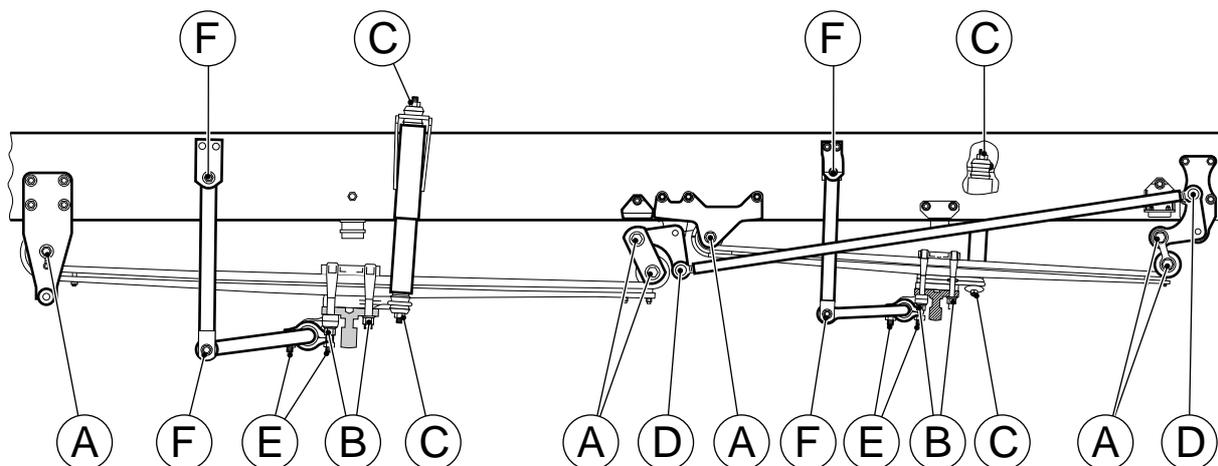
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Double front axle



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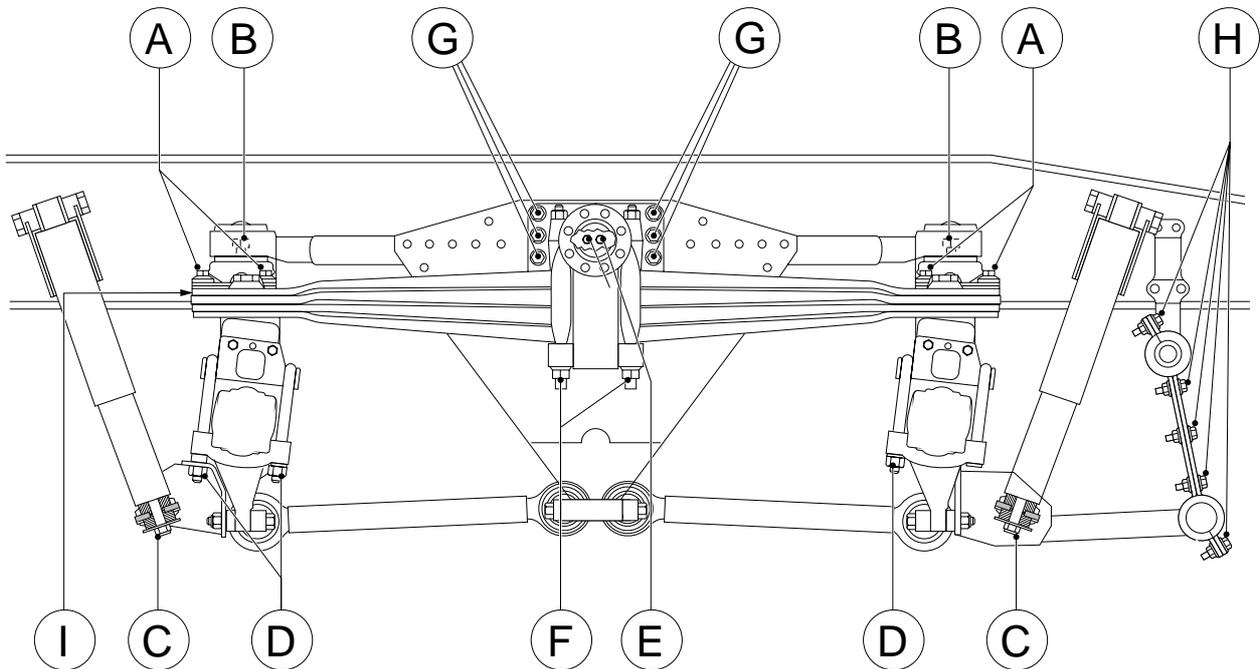
A	Attachment bolt M24 for spring assembly, property class 10.9	880 Nm
B	U-bolt nut	
	- if flange nut M20, with yellow washer	450 ± 40 Nm ⁽¹⁾
	- if yellow zinc-plated hexagonal nut M20, property class 10, with black washer	400 ± 40 Nm ⁽¹⁾
C	Self-locking nut M16	65 Nm
D	Ball end nut	
	- if self-locking nut	285 Nm ⁽²⁾
	- if castle nut	285 Nm ⁽³⁾
E	Attachment bolt/nut M12 for stabiliser rod bearing bush cover, property class 10.9/10	110 ± 8 Nm
F	Attachment bolt/nut M16 for stabiliser rod shackle, property class 10.9/10	260 ± 20 Nm

(1) Evenly tighten the two U-bolt nuts alternately.
 (2) Fit new self-locking nut.
 (3) Tighten until the split pin fits (max. 60°).

It is not allowed to fit a self-locking nut to the ball end with split pin hole.

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Tandem axle, leaf-sprung, parabolic leaf spring version

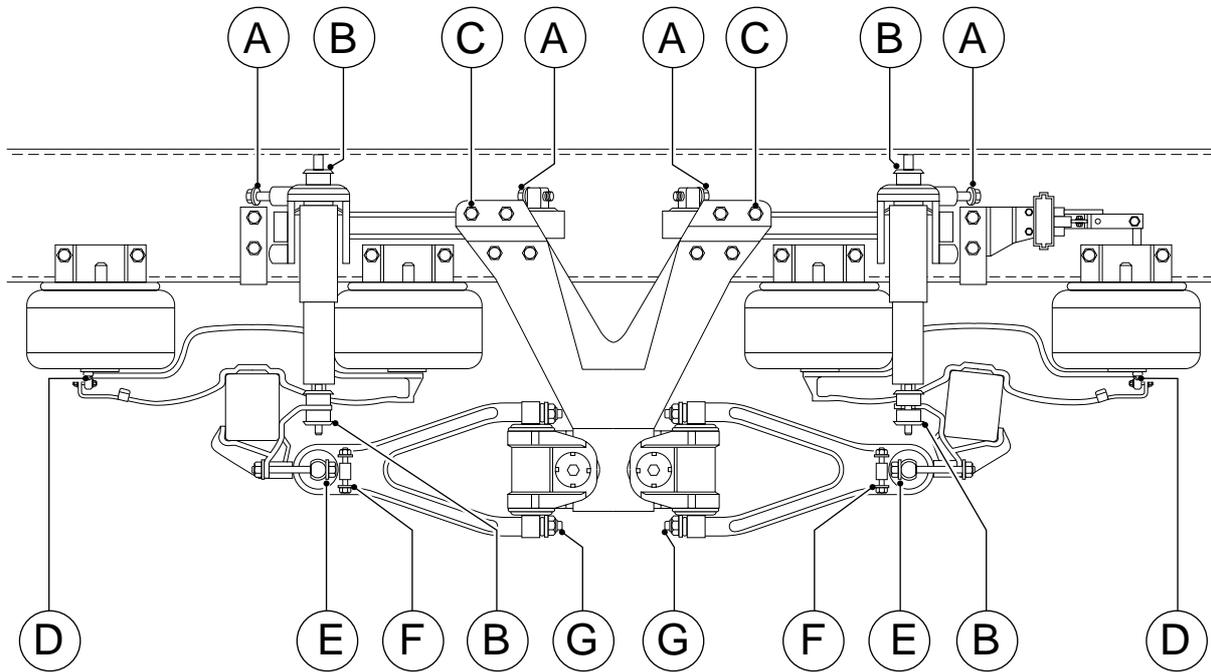


C9 00 484

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|---|---|----------------------------|
| A | Clamping flange bolt M18 for triangular link, property class 12.9 | 460 ± 40 Nm |
| B | Attachment bolt M14, for triangular link ball, property class 10.9 | 135 Nm |
| C | Self-locking nut M16 for shock absorber | 65 Nm |
| D | U-bolt nut | |
| | - if flanged nut | 450 ± 40 Nm ⁽¹⁾ |
| | - if yellow zinc-plated hexagonal nut M20, property class 10, with black washer | 400 ± 40 Nm ⁽¹⁾ |
| E | Attachment bolt M14, for bearing bush plate, property class 10.9 | 170 ± 15 Nm ⁽²⁾ |
| F | Tie rod nut | |
| | - if flanged nut | 650 ± 50 Nm ⁽¹⁾ |
| | - if yellow zinc-plated hexagonal nut M22, property class 10, with black washer | 480 ± 40 Nm ⁽¹⁾ |
| G | Attachment bolt M16 for pivot pin flange, property class 10.9 | 260 ± 20 Nm |
| H | Attachment bolt/nut M14 for stabiliser rod bracket, property class 10.9/10 | 170 ± 15 Nm |

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Tandem axle, air-sprung, Meritor version



C9 00 404

- | | | |
|---|--|-------------|
| A | Attachment bolt/nut M16 for torque rod, property class 10.9/10 | 260 ± 60 Nm |
| B | Tighten shock absorber attachment nut until the rubber sleeve and the steel ring have the same diameter. | |
| C | Attachment bolt/nut M22 for yoke, property class 10.9/10 | 750 Nm |
| D | Attachment bolt for bellows 1/2" UNC | 34 ± 7 Nm |
| E | Attachment bolt/nut M16 for torque rod, property class 10.9/10 | 260 ± 60 Nm |
| F | Attachment bolt/nut M10 for torque rod, property class 10.9/10 | 60 ± 4 Nm |
| G | Attachment nut M20 for torque rod, property class 10.9 | 520 ± 40 Nm |

3. REAR AXLE ALIGNMENT

3.1 GENERAL

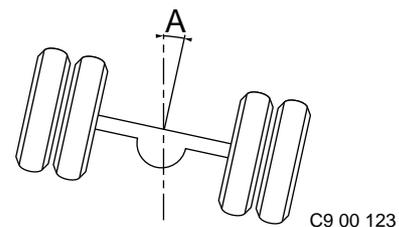
Rear axle misalignment standard

The angle achieved by the driven rear axle relative to the vehicle centreline is calculated from the angle achieved by both wheels of this axle relative to the vehicle centreline. See "Rear axle alignment".

Driven axle relative to the vehicle centreline:

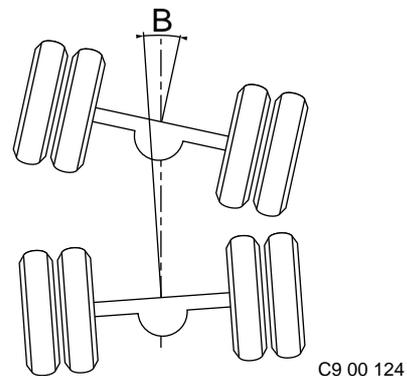
- max. 4 mm/m (angle A in drawing).

This value also applies to the individual tandem axles and the driven axle of the trailing axle suspension.



Non-parallelism of the rear tandem axle relative to the front tandem axle:

- max. 2 mm/m (angle B in drawing).



12. Round off the chassis flange at the edge of the weld.

Straightening



Do not forget your own safety during straightening operations. When working with presses, take care that parts cannot fly out.

The straightening of a chassis demands a high degree of craftsmanship as in every case of damage, an individual assessment must be made to establish whether or not straightening would be a sensible measure.

Deformations found after accidents will mainly be of the following 6 types:

- chassis is bent sideways
- chassis has a double sideways bend ("S-bend")
- chassis sags
- chassis bulges upwards
- chassis is twisted
- chassis is out of square.

In many cases, the damage will be a combination of two or more of these basic deformations.

In general, the deformations should be dealt with in the sequence shown above, although some combinations can be dealt with in one straightening operation.

When deciding whether or not to straighten a chassis, you must consider not only the degree of chassis bending but also the angle of a bend.

If there is a sharp angular bend or fold in the chassis, the material in that area is likely to be severely deformed.

If such a chassis were to be realigned to its original form, there would be a high risk of overstretching the already weakened material and causing a crack to develop.

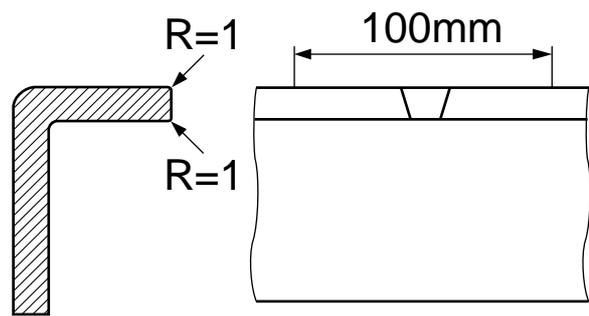
"Cold" straightening

The general rule for cold straightening of a chassis is that the degree to which the chassis should be forced back beyond the straight line is equal to the degree to which the chassis is bent. For example, if a chassis is bent by 10°, the chassis should be forced back by an additional 10° beyond the straight line.

This means that in total the chassis is forced back 20°.

Cold straightening is done with forces ranging from 40 to 100 tonnes. Therefore, work as safely as possible.

Particularly when working with auxiliary tools and aids, you are advised - from a safety point of view - to attach them correctly.



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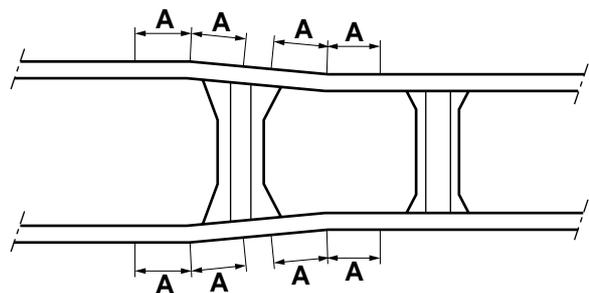
1.2 DRILLING IN THE CHASSIS

Note:

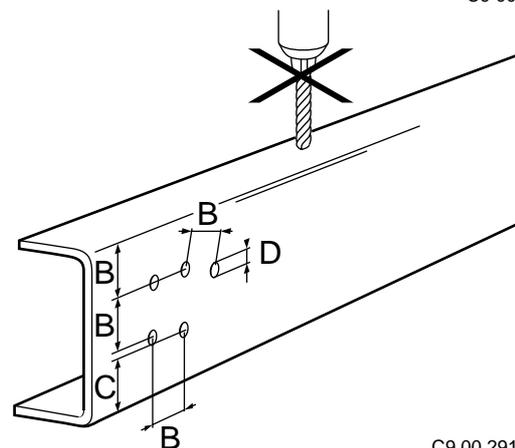
There are several stress zones in a chassis. Working on the chassis without proper knowledge (and not according to DAF instructions) may cause irreversible damage to the chassis. The repair shop or bodybuilder would be held fully responsible for such work and for any superstructure fitted.

If holes must be drilled in the chassis frame, note the following points:

- Drilling holes within a distance of 70 mm (distance A) from a bend in the chassis is not permitted.
- It is on no account permitted to drill holes in the tapered ends at the rear of a tractor chassis.
- Drilling holes in the flanges of the chassis side members is not permitted.
- The maximum diameter for drilled holes is 17 mm (dimension D in the drawing).
- The distance between the holes, and between the holes and the side member flange, must be at least $3 \times D$ - with a minimum of 30 mm (dimension B in the drawing).
- The distance between the lower stud hole and the chassis underside should at least be equal to distance C.
- Distance C is > 70 mm for a tractor chassis.
- Distance C is > 50 mm for all other chassis.
- Deburr (at an angle of 45°) and paint the drilled hole.



C9 00 304



C9 00 291

Wheelbase alteration

Any alteration to the wheelbase or changes to the rear overhang should be done in accordance with the latest DAF Trucks Bodybuilders' Guidelines.

Note:

When using the Bodybuilders' Guidelines, you are advised to first read the "General" section.

1.3 REPLACING RIVETS BY BOLTS

Note:

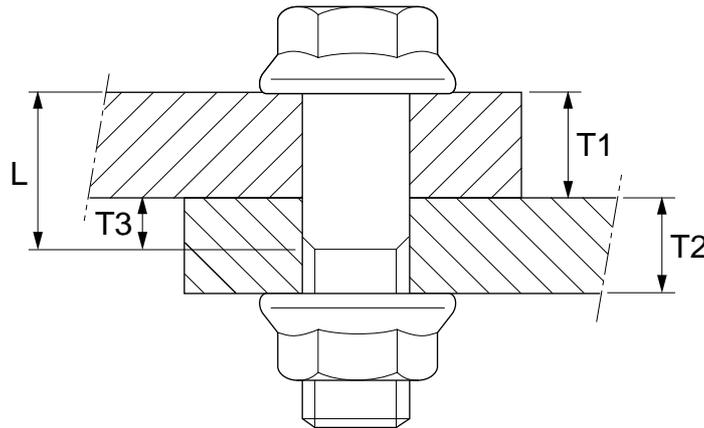
A rivet may either be replaced by a flange bolt M14 x 2, property class 8.8 (DIN 6921), or a flange bolt M16 x 2, property class 10.9.

Removing the rivet

1. Remove the rivet head. Make sure not to damage the chassis during this procedure.
2. Use a 10-mm drill to drill a hole in the rivet. Remove the rivet from the chassis.

Fitting flange bolt M14

1. Ream the rivet hole to fit 14 H7 (14 + .000 - 14 + .018 mm). Make sure not to damage any lines running behind the rivet hole. Deburr the edges.
2. Repair the chassis paintwork. The new paintwork should be no thicker than 50 microns.



C9 00 295

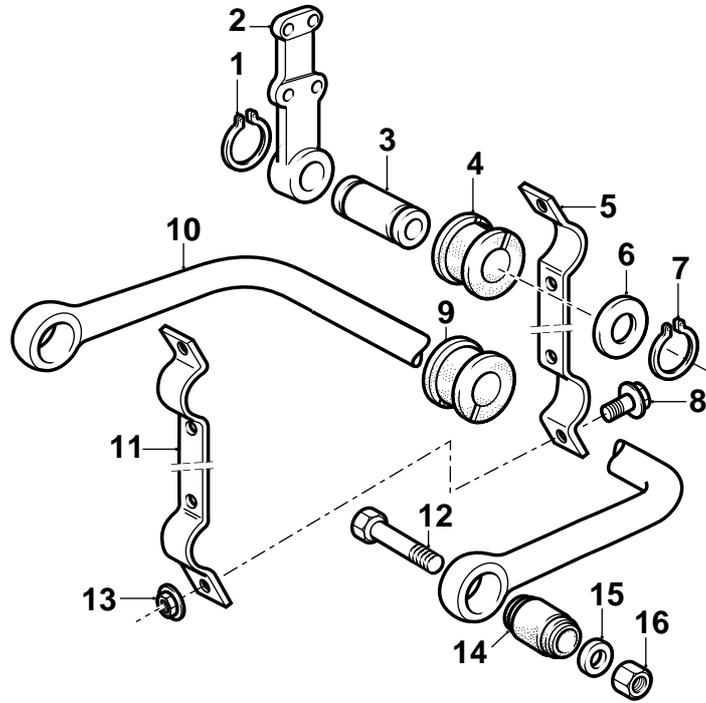
3. It is important that part of the bolt shank is not threaded. Determine the length (L) of the non-threaded shank part using the formula below.

$$L = T1 + T3, \text{ in which } T3 \text{ must be } > \frac{1}{2} T2.$$

L = shank length without thread
 T1 = part to be clamped
 T2 = part to be clamped

4. Tighten the flange bolt to the standard tightening torque for bolts, property class 8.8.

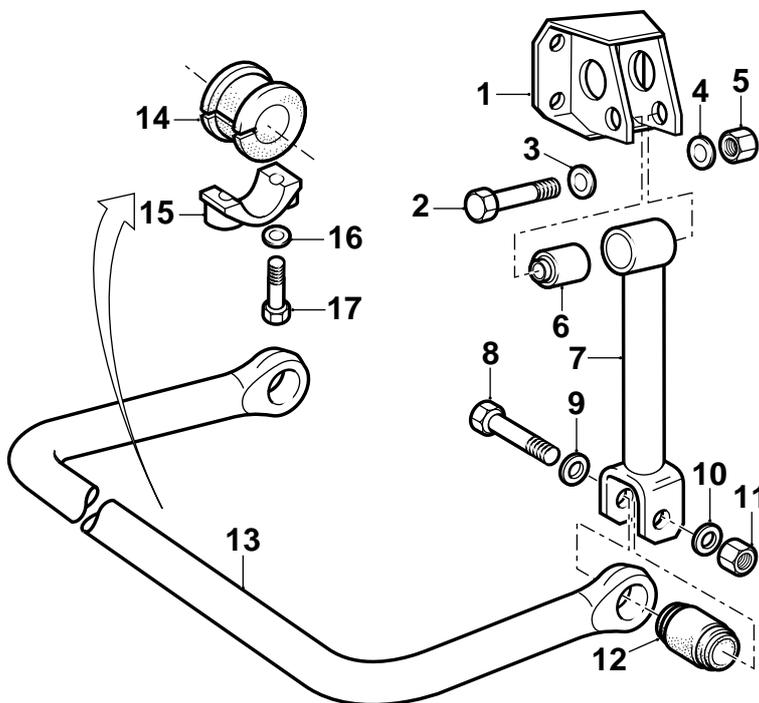
1.3 OVERVIEW DRAWING, STABILISER OF LEAF-SPRUNG TRAILING AXLE AND PARABOLIC LEAF-SPRUNG TANDEM AXLE



C9 00 426

1. Circlip
2. Bracket
3. Axle
4. Bearing bush
5. Bracket
6. Washer
7. Circlip
8. Flange bolt
9. Bearing bush
10. Stabiliser bar
11. Bracket
12. Attachment bolt
13. Attachment nut
14. Silentblock
15. Ring
16. Attachment nut

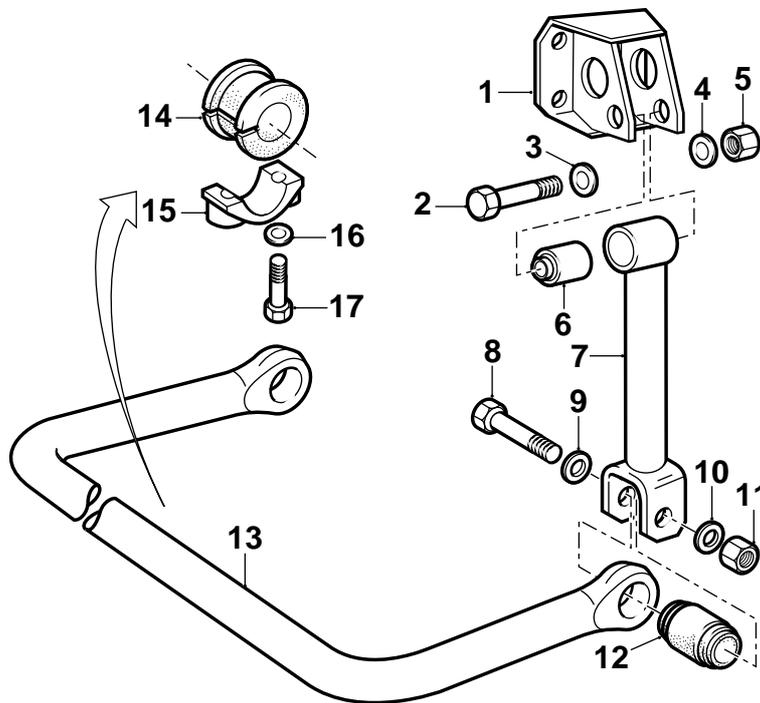
1.4 OVERVIEW DRAWING, AIR-SPRUNG REAR AXLE STABILISER



C9 00 309

1. Bracket
2. Attachment bolt
3. Ring
4. Ring
5. Attachment nut
6. Silentblock
7. Shackle
8. Attachment bolt
9. Ring
10. Ring
11. Attachment nut
12. Silentblock
13. Stabiliser bar
14. Bearing bush
15. Bearing bush cover
16. Ring
17. Attachment bolt

2.4 REMOVAL AND INSTALLATION, AIR-SPRUNG REAR AXLE STABILISER



C9 00 309

Removing air-sprung rear axle stabiliser

1. Remove the bearing bush covers (15).
2. Remove the attachment bolts (8).
3. Remove the stabiliser bar (13) from under the vehicle.
4. Remove the bearing bushes (14) from the stabiliser bar (13).
5. Remove the attachment bolts (2) and remove the shackle (7) from the bracket (1).

Installing air-sprung rear axle stabiliser

1. Check the condition of the bearing bush (14) and the silentblocks (6) and (12).
2. Fit the shackle (7).
3. Turn the bearing bushes (14) such that the opening is located at the contact surface of the bearing cover.
4. Fit the bearing bush covers (15). Evenly tighten the attachment bolts (17).
5. Fit the attachment bolts (8) with the heads facing towards the chassis.

3.11 REMOVAL AND INSTALLATION, ARRESTING CABLE AND BUMP STOP

Removing arresting cable

1. Remove the attachment bolt (16) and the locking plate (18).
2. Loosen the attachment nuts (1) a little if necessary and remove the attachment bolt (14). Remove the arresting cable.

Installing arresting cable

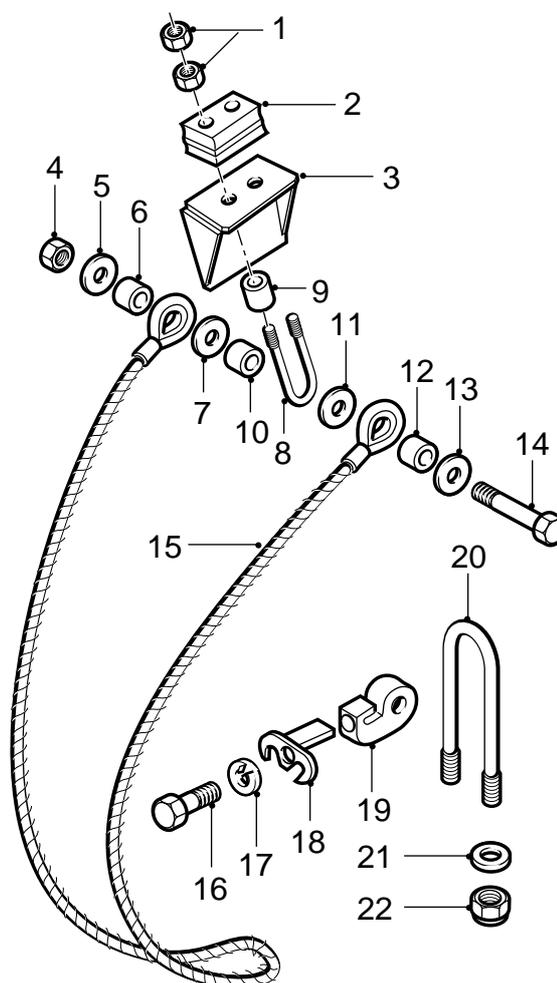
1. Fit the arresting cable to bump stop (2), using attachment bolt (14). Tighten the attachment bolt (14) to the specified torque. See "Technical data".
2. Check if the washers (5), (7), (11) and (13) just touch the bracket (3). If not, tighten the attachment nuts (1) until the rings just touch the bracket (3).
3. Make sure that the cable length is divided in two equal ends and fit the attachment bolt (16) with locking plate (18). The difference in length between the two cable ends should not be more than 2 mm.
4. Grease the entire arresting cable.

Removing bump stop

1. Remove the four attachment nuts (1) and remove bump stop (2).

Installing bump stop

1. Fit the bump stop (2).
2. Tighten the attachment nuts (1) until the washers (5), (7), (11) and (13) just touch the bracket (3).



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3.12 REMOVAL AND INSTALLATION, WEARING PLATES

Removing wearing plates

1. Jack up the vehicle until the spring assembly ends are not resting on the wearing plates any more.
2. Support the vehicle securely with stands or blocks under the chassis side members.
3. Remove the two attachment bolts (3) and take off the catch hook.
4. Remove the locking bolt (2) - which lies loose in the bracket - and lift wearing plate (1) off the bracket.

Installing wearing plates

1. Check the minimum wearing plate dimensions, see "Technical data".
2. Put the wearing plate (1) on the bracket.
3. Fit the locking bolt (2) which lies loose in the bracket (1).
4. Install the two attachment bolts (3) with the catch hook.
5. Remove the bracket.

