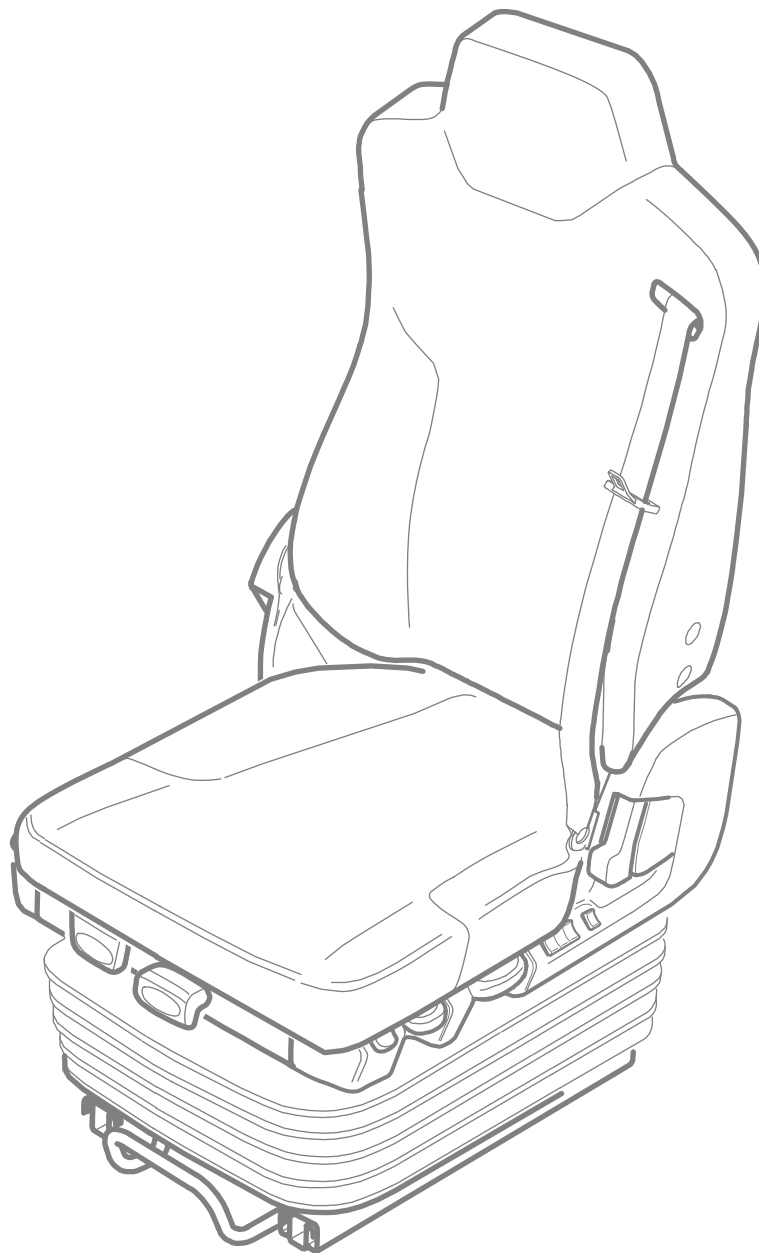


ISRI 6860 / 875 (885)



Subject to technical changes for reasons of further development.

State: 03.2003

Version: 1

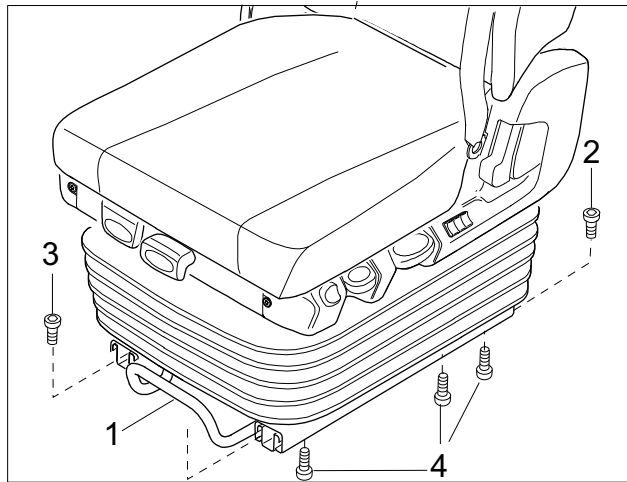
Contents	Kapitel
General	
Important hints.....	1
System components	2
(before each repair read chapter 1 aswell.)	
Complete seat.....	2.1.0
Horizontal adjustment (slides).....	2.1.0
Horizontal adjustment, 2 - steps (slides).....	2.1.0
Seat cushion, sliders.....	2.1.0
Side covers for seat frame, switches for lumbar support, heating and swivel.....	2.2.0
Backrest.....	2.2.0
Lever / lever- springs for backrest adjustment	2.3.0
Height adjustment (lever / bowden cable).....	2.3.0
Lever for tilt adjustment.....	2.3.0
Shock absorber adjustment (lever / bowden cable)	2.3.0
Tooth segment for backrest adjustment.....	2.4.0
Upholstery cover for backrest.....	2.4.0
Upholstery cover for seat cushion.....	2.4.0
Safety belt.....	2.5.0
Air chamber for lumbar support.....	2.5.0
Air spring.....	2.6.0
Shock absorber for vertical suspension.....	2.6.0
Valve for height adjustment.....	2.6.0
Height blocking system.....	2.6.0
Tooth segment for shoulder adjustment.....	2.7.0
Switch for quick lowering.....	2.7.0
Lever / bowdencable for horizontal suspension.....	2.7.0
Adjustment instruction for valve height adjustment.....	2.8.0
Swivel.....	2.9.0
Cylinder unit for swivel.....	2.9.0
Shock absorber for horizontal suspension.....	2.9.0
Pneumatic plans	3
Pneumatic plan	3.1.0
Pneumatic plan (version with swivel).....	3.2.0

Important hints

- Seat repairs have to be carried out by competent staff only.
- The presentation in this booklet shows the left seat, resp. the left seat side.
On the right seat, resp. the right seat side, the repair will be carried out accordingly.
- The description in chapter 2 explains the removal of sundry seat components.
The installation of these seat components generally happens in reverse sequence.
- Not all fastening parts for hoses and cables (e.g. cable binder) won't be mentioned in detail.
After repairs it is necessary to put the laying of hoses and cables, as well as the fastening and securing, into original condition.
- Hoses, electrical lines and bowden cables must not be creased.
- Due to safety reasons pay attention to the correct positioning and to the observance of the tightening torques of the fixing screws when exchanging component parts, which lie within the flux line of the belt anchorage points.
- After each repair a functional test and, if pneumatic parts are involved, a leak test has to be effected.

Thightening torques:	M8	=20 Nm	+5Nm
	M 10	=22 Nm	+/-2Nm
	7/16"UNF-2B	=35 Nm	+5Nm

- When unwinding the safety belt from retractor, take care for a retractor position corresponding to the mounting position at the seat.
- Backrest in forward folded position must not be used as ascent help.

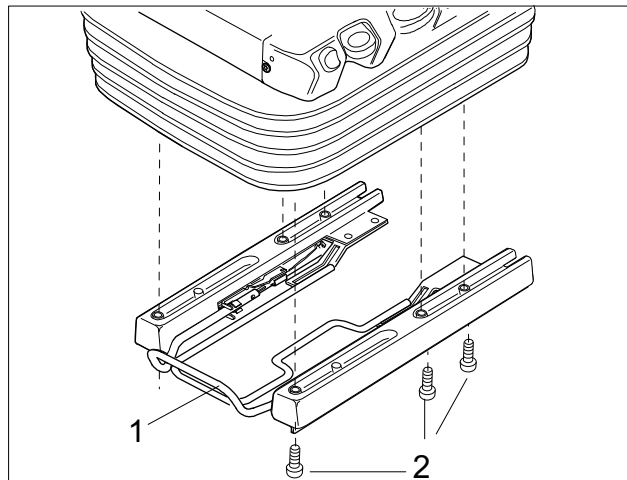


Complete seat

- Disconnect air supply lines and electrical feeders.
- Pull lever (1) upwards, move seat to the frontmost position and undo screws (2).
- Pull lever (1) upwards, move seat to the rearmost position and undo screws (3).

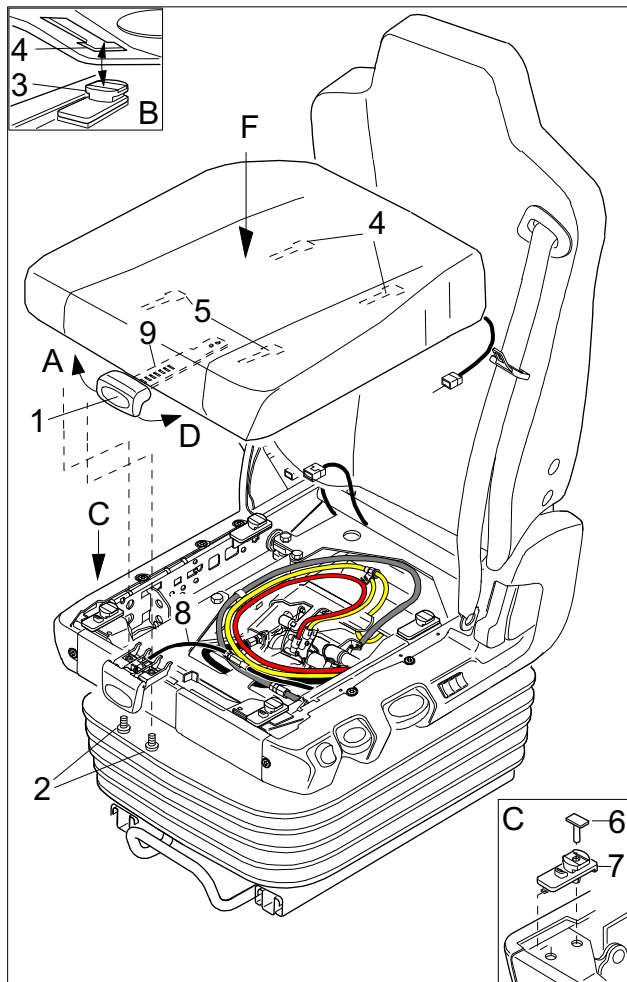
Horizontal adjustment

- Remove seat from vehicle (see complete seat).
- Pull lever (1) upwards and move seat in that way, that six screws (4) are reachable through openings in inner slides.
- Undo six screws (4).



Horizontal adjustment, two steps

- Remove seat from vehicle (see complete seat).
- Pull lever (1) upwards and move seat in that way, that six screws (2) are reachable through openings in inner slides.
- Undo six screws (2).



Seat cushion / Sliders

- Lift up lever (1) and push seat cushion to foremost position.
- Undo two screws (2).
- Hold lever (1) in upper position and push it sideways (see arrow (A)).
- Move seat cushion forwards again and lift it up.
- Disconnect electrical feeders for seat cushion heater and ventilation, if necessary.

Seat cushion mounting:

- Bowdencable (8) must be positioned between lever (9) and seat cushion ground plate.
- Lay the keyholes (4) of the seat cushion (on the cushion's bottom side - pict. B) onto the sliders (7) at the rear.
- Push lever (1) upwards (don't move cushion).
- Press down the seat cushion's front keyholes (5) onto the sliders at the front and press down cushion in direction of arrow (F).
- Push the cushion in direction of backrest (till stop) while still pressing down the complete seat cushion.
- Check now if all four sliders are locked in the keyholes (no vertical movement allowed).
- Push lever (1) in direction of arrow (D) and push cushion further in direction of backrest, till lever (1) engages. Take care, that the cushion is now locked in horizontal and vertical direction.

Exchange of sliders (picture C)

- Dismantle seat cushion (s.a.).
- Pull out plastic pin (6) and squeeze out slider (7).

Sliders mounting:

- Mount slider (7) at the seat frame.
- Push in pin (6) (level of pin head flat must fit to the flat of the slider head).

Side covers for seat frame, IPS - valve, switches for heating and swivel

Cover , lever side :

- Remove seat cushion (2.1.0).
- Move seat to the highest position and secure it against lowering (2.6.0, shock absorber).
- Pull off handle (21) downwards (undo screw if existing)
- Unscrew one screw (1), two screws (2) and undo two pins (3).
- Fold backrest completely forwards and undo one screw (4).
- Remove cover (5) from seat frame.

Switch for seat lowering (see 2.7.0, too)

- Unscrew one screw (6) and one screw (7)(old version: 2x(7)).

IPS valve

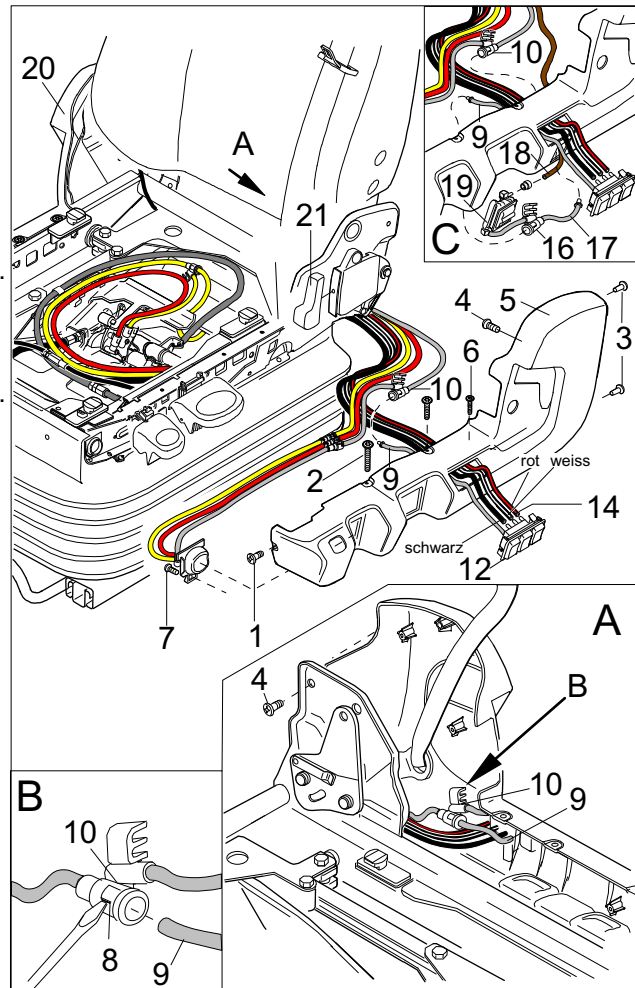
- Lift up fixing hook (8) safely and demount air pipe (9) from Y - connector (10)(see details A, B).
- Disconnect three hoses (14) from valve unit (12)
- Unhook two hooks of valve (12) and push out valve from cover (5).

Switch for swivel (see detail C)

- Lift up fixing hook (8) safely, separate air pipes (9)(17) from Y - connectors (10) (16) and loosen air pipe (18) from switch (19) (see B, C).
- Unhook the two upper hooks of switch (19) and pull off switch from cover (5).

Cover, opposite lever side :

- Demount belt buckle.
- Remove cover (20) in general sense of cover (6).
- Loosen cable connector of heater switch and push switch out of cover (if switch is existing).

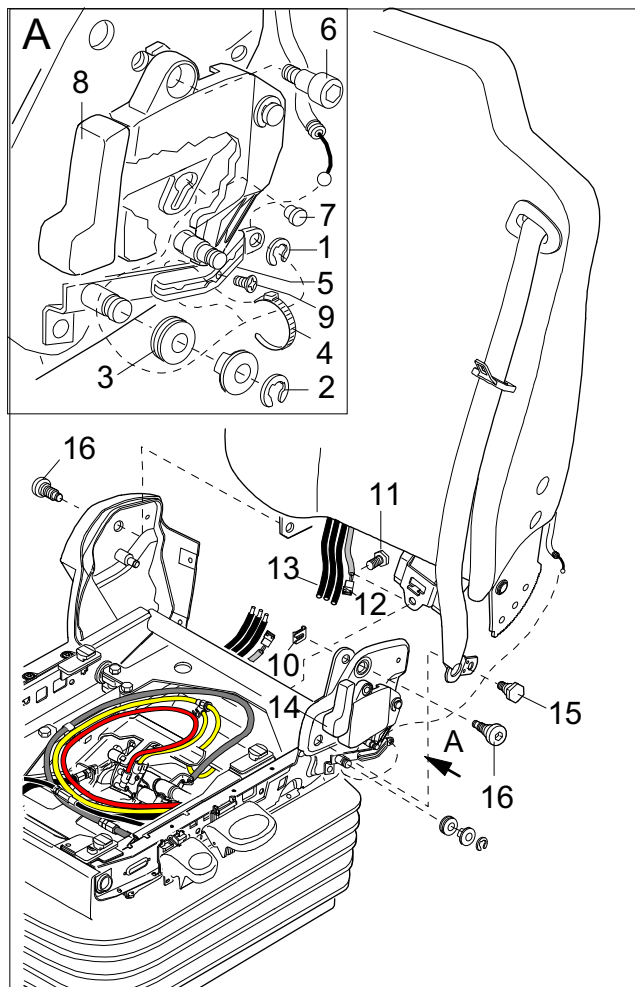


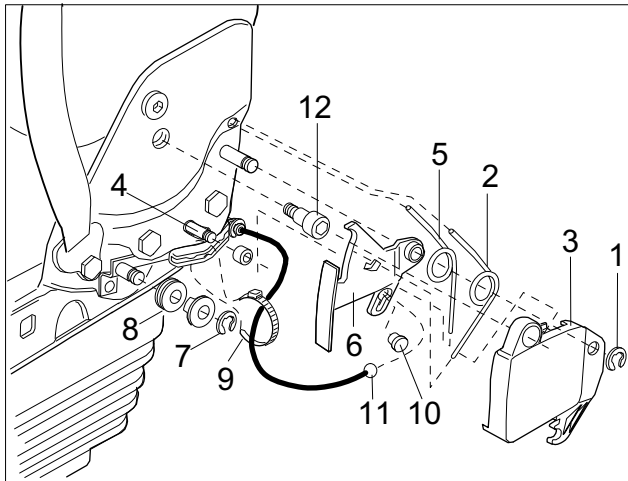
Backrest

- Adjust tilting to the upmost position.
- Demount side covers (s.a).
- Remove safety washers (1) (2) and roller (3)(see detail A).
- Cut cable binder (4)(as far as existing) and take cable out of cable guide (5).
- Unscrew screw (6), pull out securing pin (7) and remove cable from lever (8).
- Unscrew screw (9).
- Undo safety clamp (10).
- Unscrew screw (11).
- Disconnect feeder (12) and three air pipes (13),
- Lift up handle (14) and unscrew screw (15).
- Unscrew screws (16).
- Lever backrest out of the seat frame brackets.

Hint:

Please order the screws (11)(15)(16) additionally, when ordering a new backrest (screws are findable in spare part list as a kit).





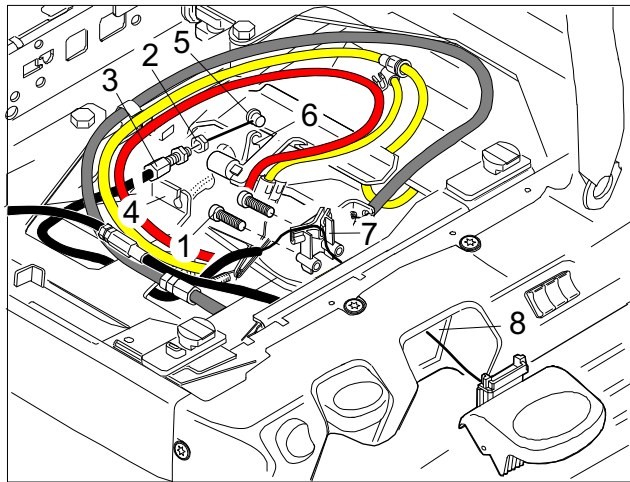
Lever / lever springs for backrest and shoulder adjustment

Lever for backrest adjustment and lever springs

- Demount side cover for seat frame (2.2.0, lever side).
- Remove safety washer (1), demount spring (2) at lever (3) and lever (6). Pull off lever (3).
- Demount spring (5) at pin (4)

Lever for shoulder adjustment

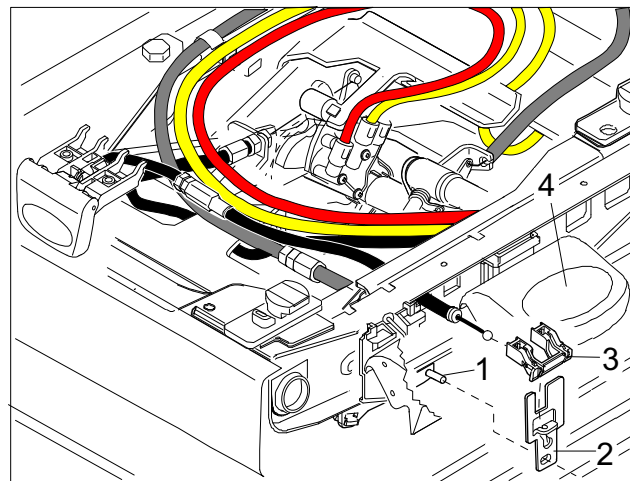
- Remove safety washer (7) and roller (8).
- Cut cable binder (9) (as far as existing).
- Pull out securing plug (10) and remove cable ball (11) from lever (6) (pull cable out of cable guide, if necessary).
- Unscrew screw (12) and pull off lever (6).



Height adjustment

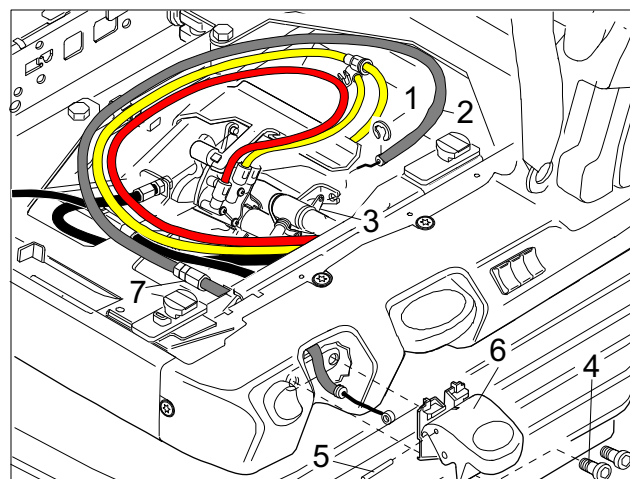
- Demount seat cushion (2.1.0).
- Adjust tilting to the upmost position.
- Unscrew two screws (1).
- Undo nut (2), remove bowden cable (3) from fastening (4) and pull cable nipple (5) out of valve lever (6).
- Push bowden cable out of bearing (7) and pull it through opening (8).

After mounting: Adjust valve for height adjustment (2.8.0).



Lever for tilt adjustment

- Demount seat cushion (2.1.0).
- Remove lever for height adjustment (4) (s.a.).
- Demount side cover (without disconnecting hoses).
- Push in pin (1) till lever (2) hooks out.
- Lever bearing (3) out of seat frame and remove bowden cable from lever (2).



Shock absorber adjustment

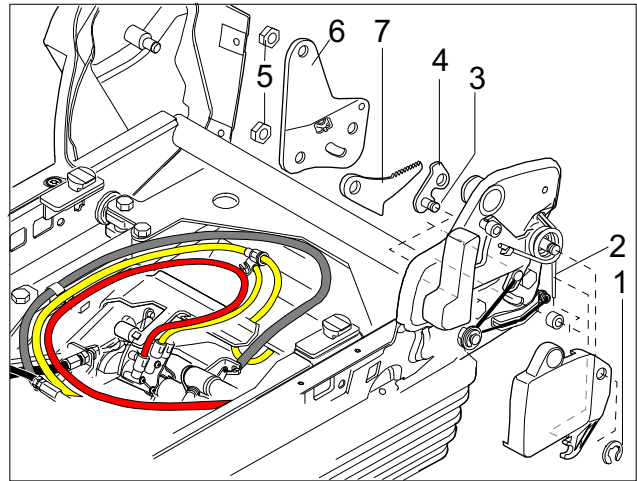
- Demount seat cushion (2.1.0).
- Remove retaining washer (1) and lever bowden cable (2) out of fastening (3).
- Unscrew two screws (4).
- Knock pin (5) out of lever (6) and pull bowden cable out of seat frame.

Notice:

- Before mounting seat cushion, loosen locking nut (7).
- Adjust bowden cable (2) that way, that in downmost position of adjusting lever, the hardest vertical damping will be achieved.
- Tighten locking nut (7) again.

Tooth segment for backrest adjustment

- Demount seat cushion (2.1.0).
- Demount side cover for seat frame without disconnecting hoses or electr. feeder (2.2.0).
- Remove safety washer (1) and loosen springs (2) at pin (3) of lever (4).
- Unscrew nuts (5) and take out plate (6), tooth segment (7) and lever (4).

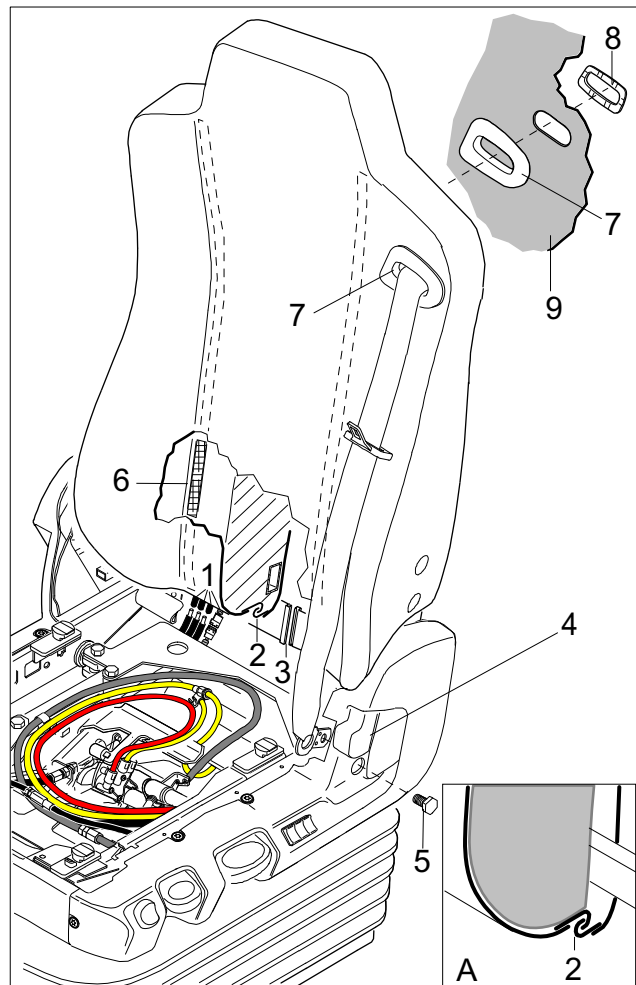


Cover for backrest cushion

- Disconnect three hoses and one electr. connector (1).
- Unhook C- profiles (2)(detail A) and (3).
- Lift up lever (4) and undo screw (5) of belt fixation.
- Pull cover upwards and loosen fixing tapes (6).
- Remove cardboard.
- Pull belt through opening (7).
- Remove clamp (8) from belt guide (7) and cover (9).

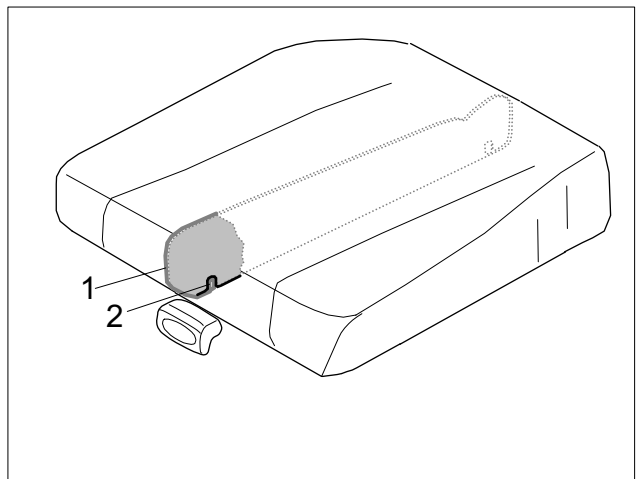
Hint:

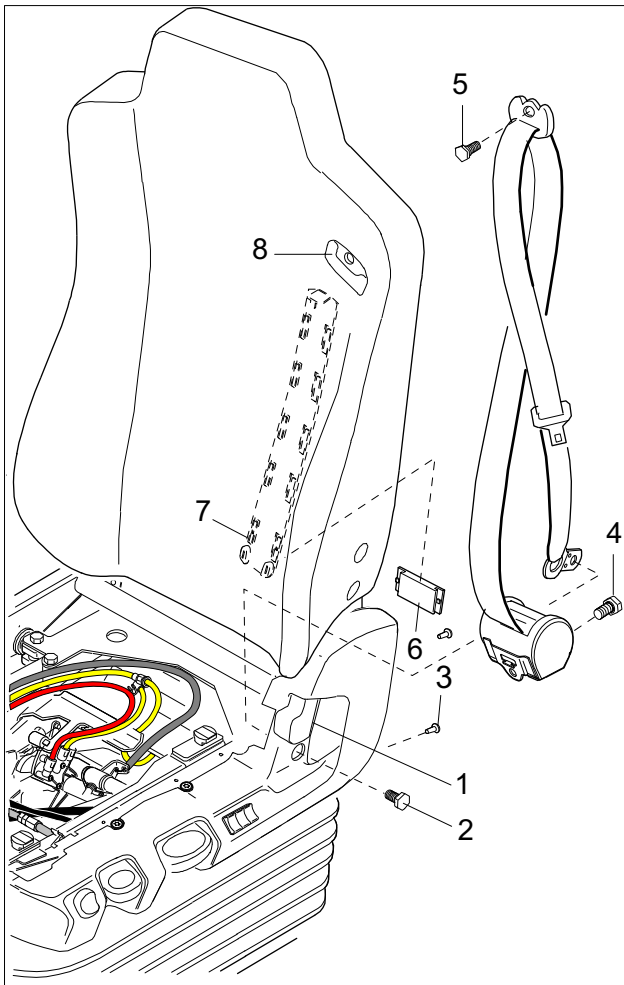
When ordering a new backrest cover, please order belt guide (7) additionally.



Cover for seat cushion

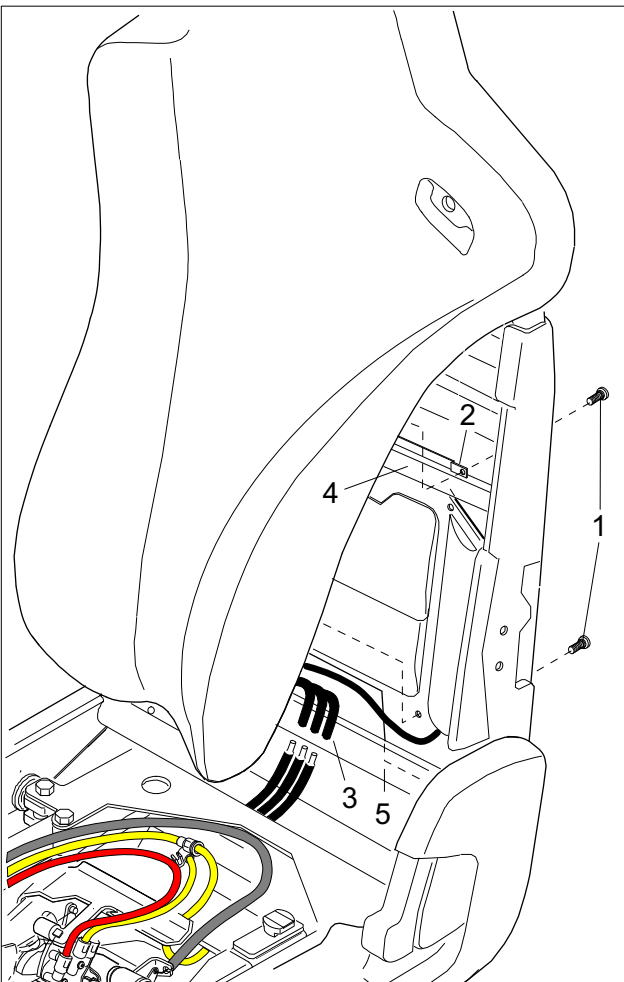
- Dismantle seat cushion (2.1.0).
- Lever seat cushion cover (1) out of beading (2), running around seat ground plate.





Safety belt

- Demount seat cushion (2.1.0).
- Demount backrest cover (2.4.0).
- Lift up lever (1) and undo screw (2).
- Remove four caps (3) and demount rear cover.
- Undo screws (4) and (5).
- Unhook plate (6) at belt bearing (7).
- Pull belt through opening (8).



Air chamber for lumbar support

- Remove backrest cover partially (s.a.).
- Unscrew four screws (1) and loosen foam part from frame.

Hint:

Don't tighten screws (1), when mounting the foam part. The distance between screw head and shackle (2) should come to 1 mm.

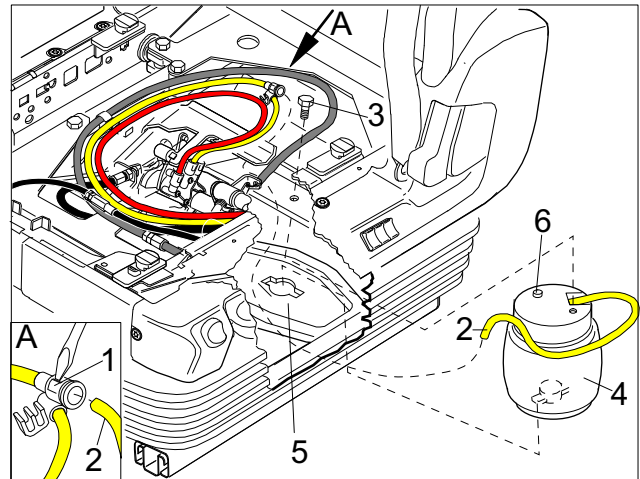
- Disconnect three hoses (2).
- Pull out air chamber (3) from behind cross-braces (4) (5).

Hint:

When mounting the air chamber unit, take care, that chamber carrier plate has to be mounted behind cross-braces (4) (5).

Air spring

- Demount seat cushion (2.1.0).
- Pull out bellow fixation in front and side area.
- Secure suspension unit at the highest position by a distance sleeve (length: 75mm)(see shock abs., pos 4).
- Lift up fixing hook (1) safely and demount air pipe (2) (see Detail A).
- Undo screw (3).
- Turn round air spring (4) for 90 degrees and take it out from lower holder (5).
- Remove lower shock absorber fixation (given below), lift up shock absorber move out air spring frontwards.
- After mounting the new air spring, nose (6) must fit to the hole at the upper air spring holder.

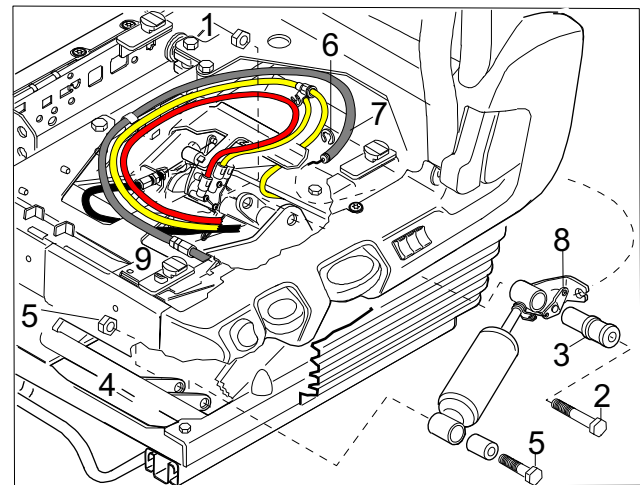


Shock absorber

- Demount seat cushion (2.1.0).
- Pull out lower bellow fixation.
- Secure suspension unit at the highest position by a distance sleeve (4)(length: 75mm).
- Undo nut (1), loosen screw (2) and remove socket (3).
- Unscrew lower shock absorber fixation (5).
- Remove retaining washer (6) and lever bowden cable (7) out of fastening (8).

Notice:

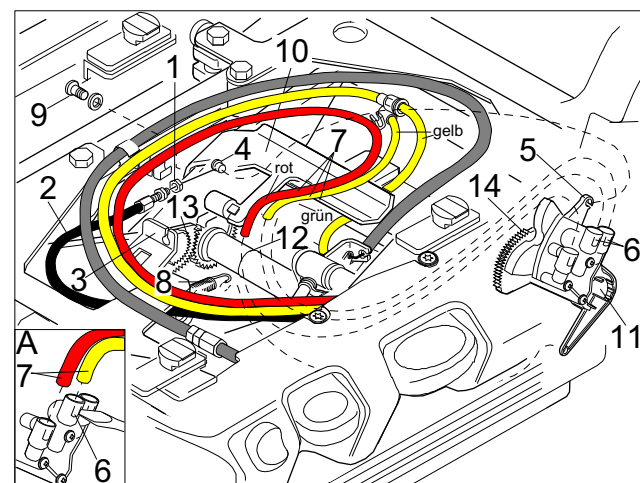
- Before mounting seat cushion, loosen locking nut (9).
- Adjust bowden cable (7) that way, that in downmost position of adjusting lever, the hardest vertical damping will be achieved.
- Tighten locking nut (9) again.



Valve for height adjustment

- Demount seat cushion (2.1.0).
- Undo nut (1), remove bowden cable (2) from fastening (3) and pull cable nipple (4) out of valve lever (5).
- Lift up fixing hooks (6) safely and demount air pipes (7) (see detail A).
- Unhook spring (8).
- Pull out lower bellow fixation, undo screw (9) and swivel up bracket (10).
- Turn around valve (11) on its bearing tube and pull it over the bearing tube edge (12).

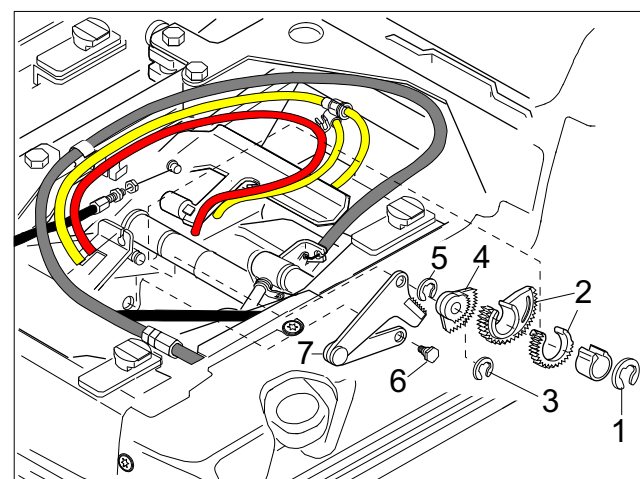
After mounting: Adjust valve for height adjustment (2.8.0).

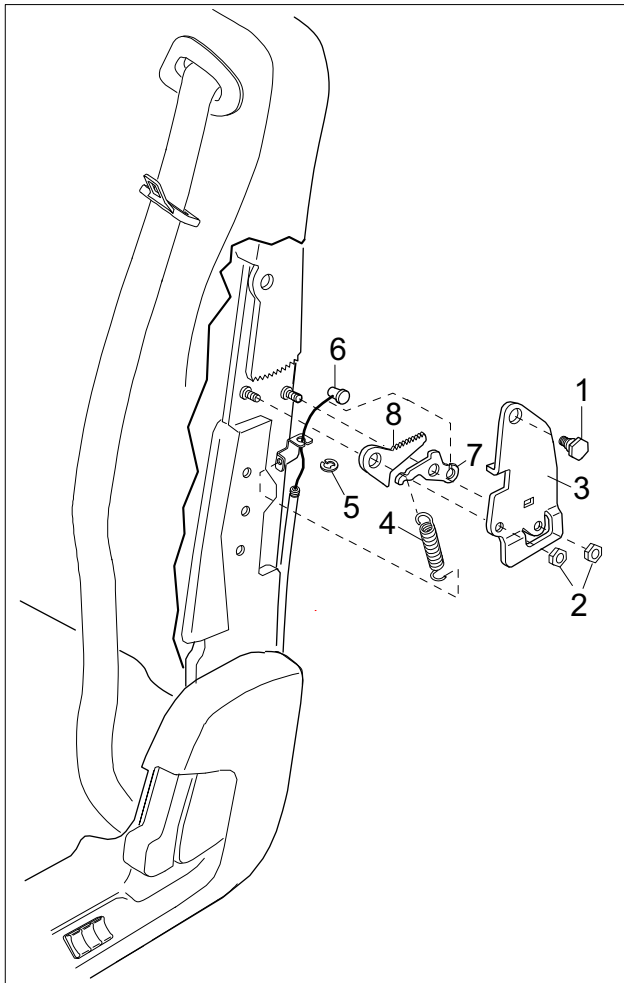


Height blocking system

- Demount seat cushion (2.1.0).
- Remove valve for height adjustment (s.a.).
- Undo retaining washer (1) and remove tooth segments (2).
- Undo retaining washer (3) and remove tooth segment (4).
- Undo retaining washer (5), unscrew screw (6) and take out lever (7).

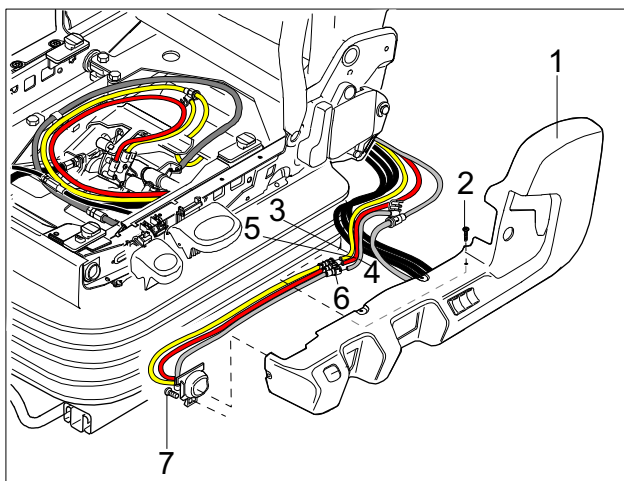
- After mounting: Adjust height blocking system (2.8.0).





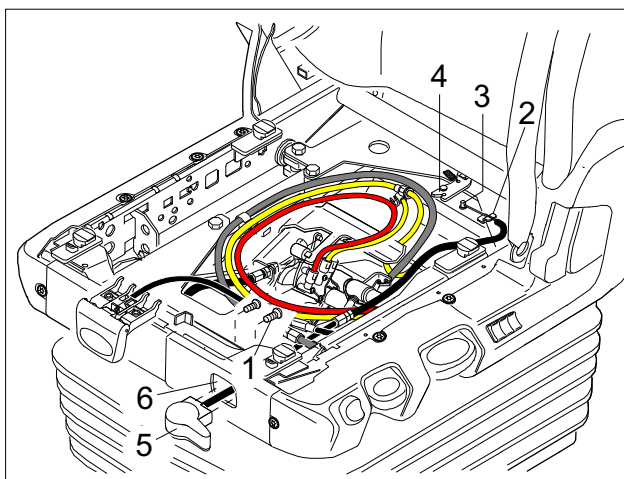
Tooth segment for shoulder adjustment

- Remove backrest cover and pull it upwards to the shoulder area (2.4.0).
- Unscrew bolt (1), nuts (2) and take off plate (3).
- Unhook spring (4).
- Undo retaining washer (5) and remove bowden cable (6) from lever (7).
- Take out lever (7) and tooth segment (8).



Switch for quick lowering

- Remove seat cushion (2.1.0).
- Demount plastic cover (1)(see 2.2.0).
- Unscrew screw (2).
- Disconnect hoses (3) (4) (5) from connector (6),
- Unscrew screw (7) (old version: 2 x (7)) and unhook switch in the upper area out of cover (1).



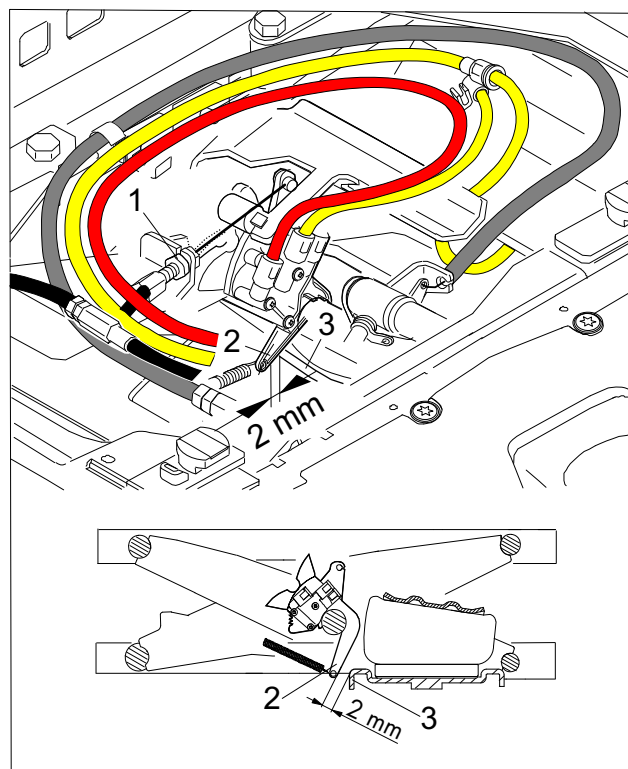
Lever / bowden cable horizontal suspension

- Remove seat cushion (2.1.0).
- Unscrew two screws (1).
- Bend open thrust bearing (2).
- Unhook cable (2) from lever (3).
- Pull lever / bowden cable (4) out of opening (5).
- Bend thrust bearing (2) to the original condition.

Valve adjustment

(seats without height blocking system)

- Lower seat and adjust height adjustment in upper position.
- Adjust bowden cable in that way, that the distance between lever (2) and air spring holder (3) comes to 2 mm.



Valve adjustment

(seats with height blocking system)

Adjust tooth segments (1) and (2) once again, if they don't fit after removal.

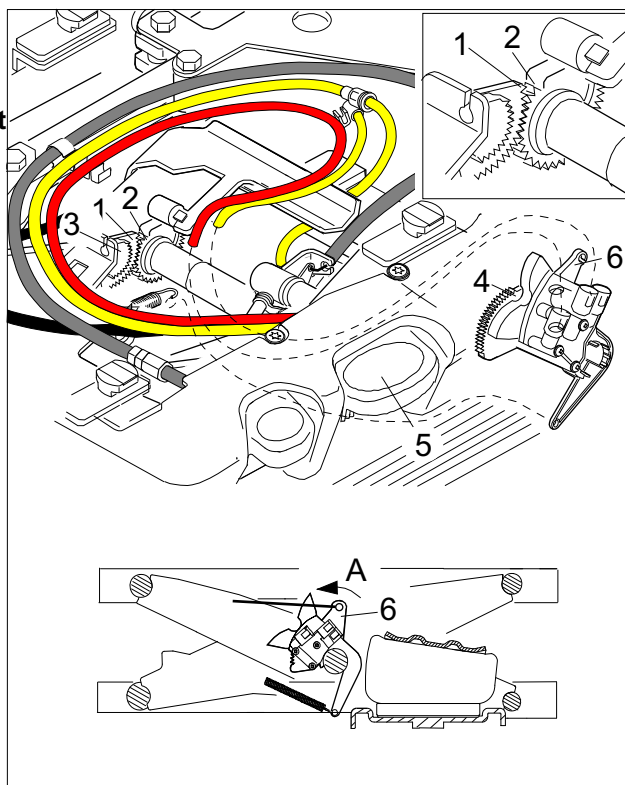
- The topmost tooth of segment (1) must fit in the topmost space width of segment (2).
Check tooth segments (see below, valve adjustment)

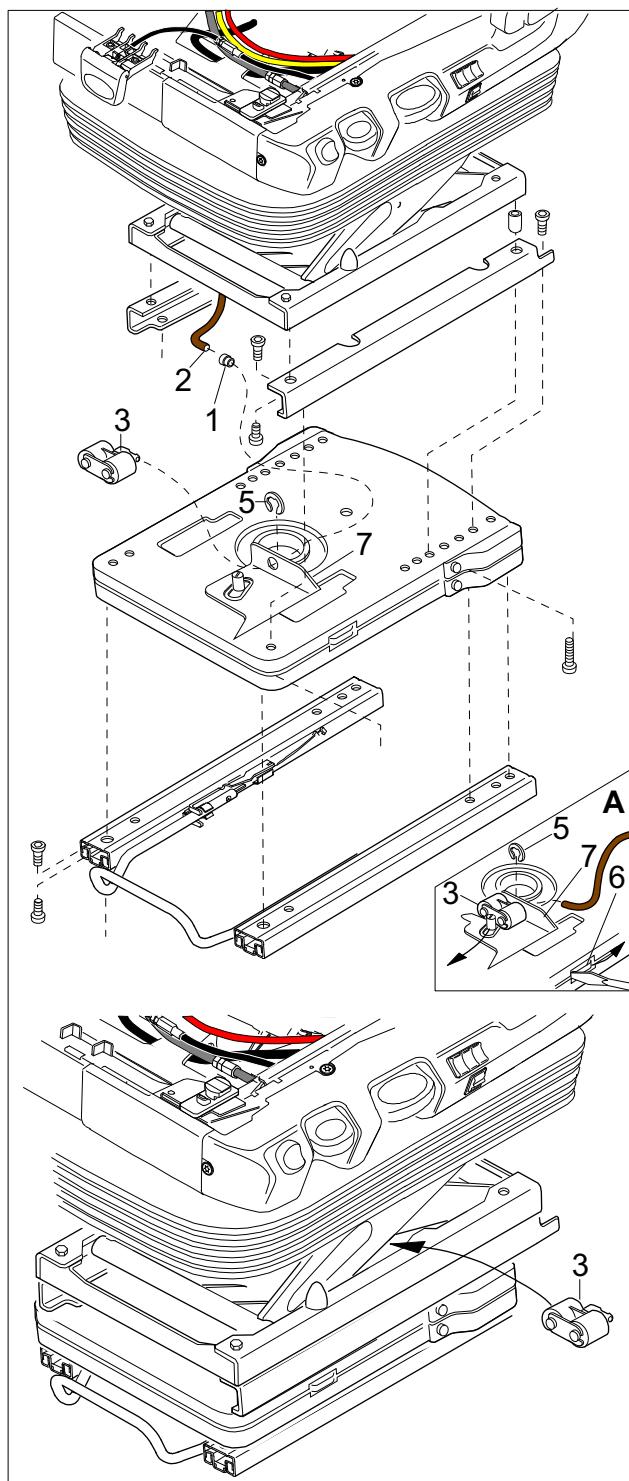
Valve adjustment

- The topmost tooth of segment (3) must fit in the topmost space width of segment (4).
- After adjusting the tooth segments, look for the segments correct moving over the whole distance.
If segments are blocking, the upper tooth don't fit and the segments must be adjusted once again.

bowden cable adjustment

- Pull handle (5) to the upmost position and adjust bowden cable of valve for height adjustment in that way, that lever arm (6) has still a little clearance.



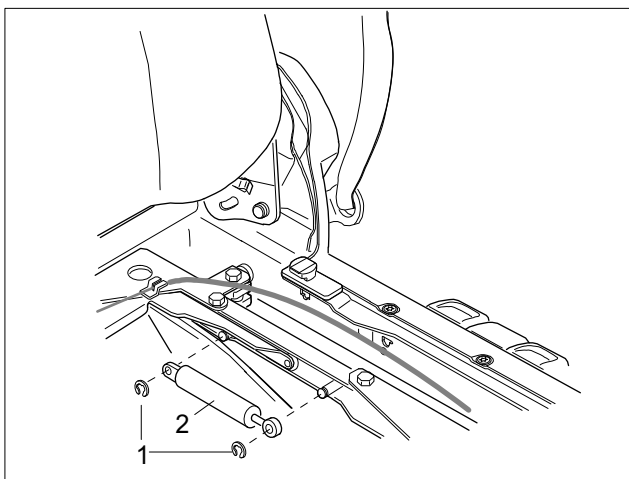


Swivel (incl.cylinder unit)

- Remove seat from vehicle and dismantle slides from seat (2.1.0).
- Remove bellow from ground frame.
- Dismantle hose clamp (1) and pull off hose (2) from cylinder unit (3).
- Unscrew screws (4).
- Remove safety washer (5).
- Push lever (6) in direction of arrow by screw driver (see A) and pull cylinder unit out of cover (7).

cylinder unit (3) (separate exchange)

- Remove bellow from ground frame.
- Move seat to the highest position and secure it against lowering.
- The cylinder unit (3) is reachable sideways through the scissor of the suspension unit (see arrow).
- Remove safety washer (1) and pull off hose (2) from cylinder unit (3).
- Push lever (6) in direction of arrow by screw driver (see A) and pull cylinder unit out of cover (7).
- Remove safety washer (5).
- Push in piston of cylinder unit by screw driver (see A) and pull off cylinder unit out of holder (6).



Shock absorber for horizontal suspension

- Demount seat cushion (2.1.0).
- Secure suspension unit at the highest position by a distance sleeve (4)(length: 75mm).
- Remove securing washers (1) and pull off shock absorber from pins.

