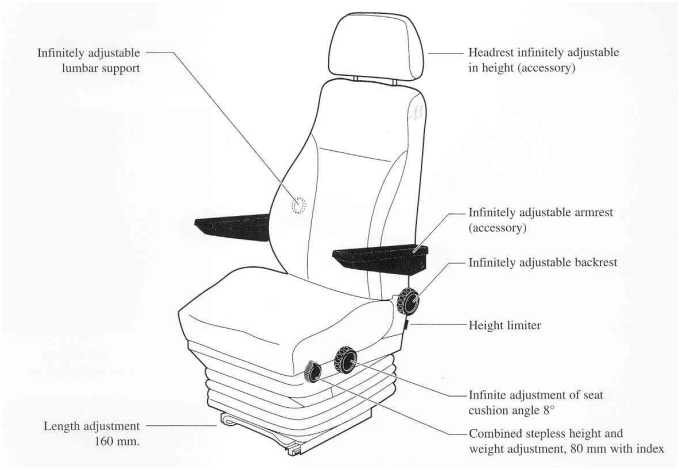

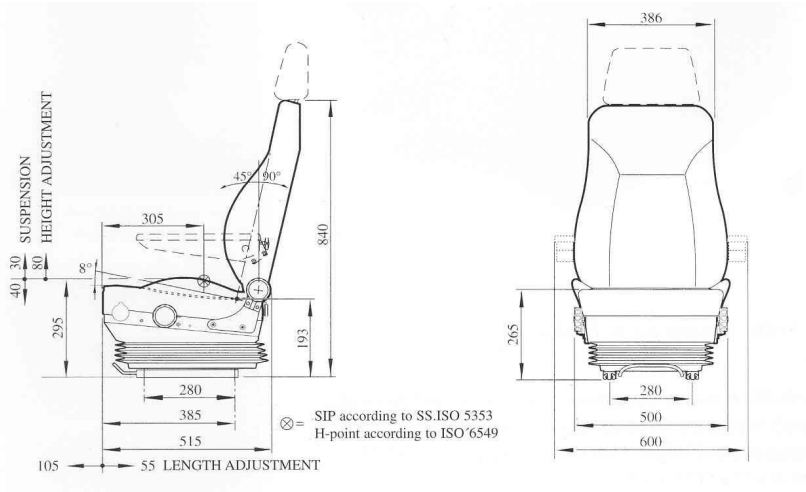

Illustrerad stol Be-Ge 9100

Recommended Scheduled Maintenance

Daily Inspection: Inspect and perform, if necessary, the required maintenance according to service items **1** and **2**.

Inspections every 1,000 working hours: In addition to extended inspections according to service items **1** and **2,** inspect and perform maintenance, if any, according to service items **3** and **4**.

If the recommended scheduled maintenance is not adhered to, Be-Ge Industri AB reserve the right to limit any warranty or compensation claims.

Caution!

Beware of jamming injuries in the scissors unit, if the protective bellows are lacking or damaged.

Be-Ge Industri AB
Box 912 SE-572 29 Oskarshamn, Sweden Tel. +46(0)491-761800.
Fax +46(0)491-81900. info@be-ge.se www.be-ge.com

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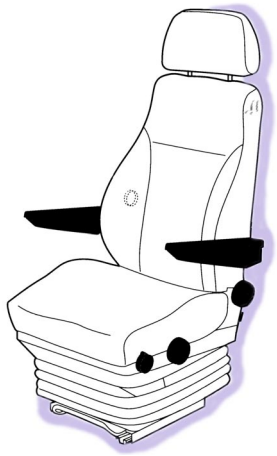
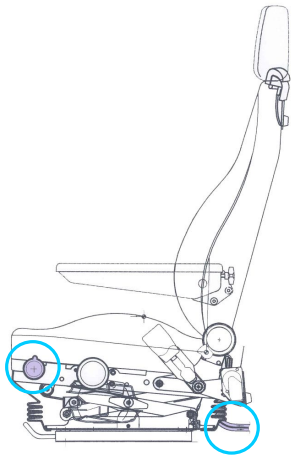
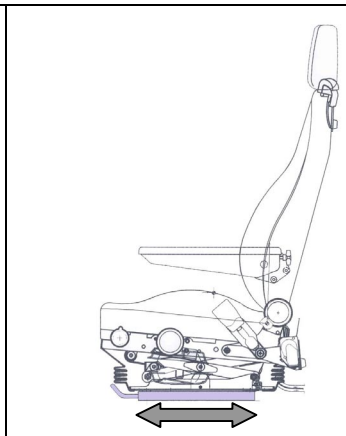
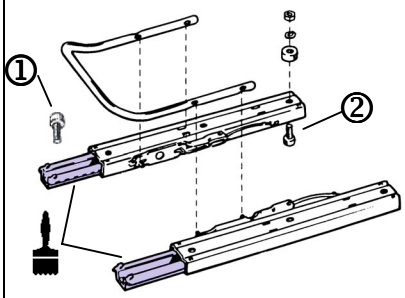
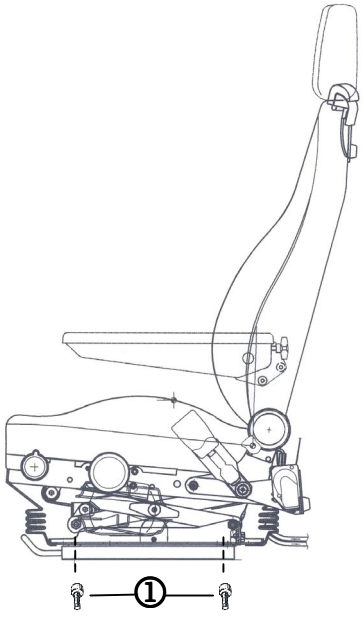
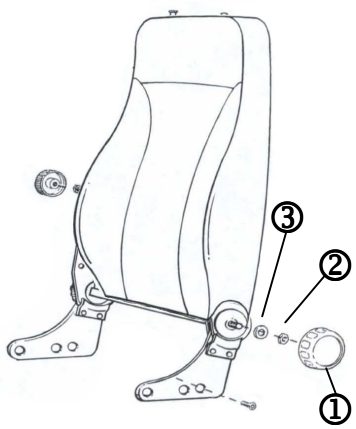
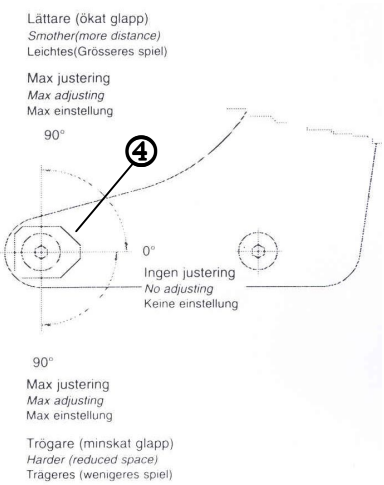
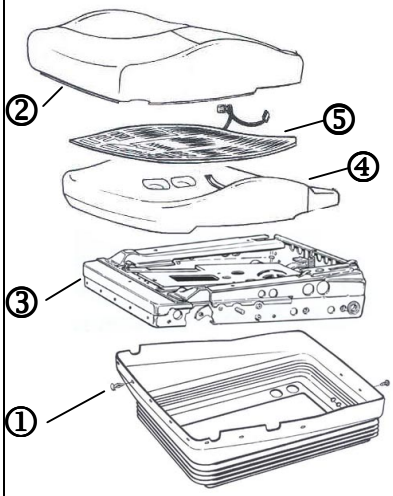
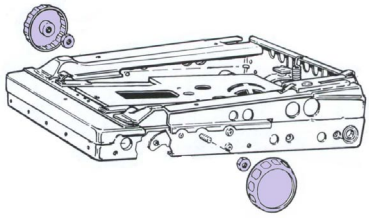
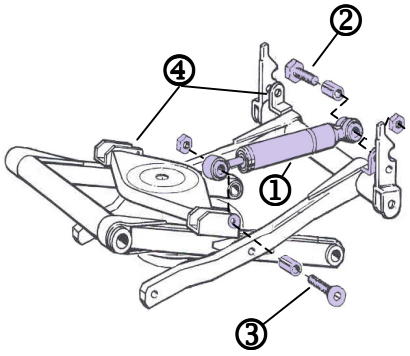
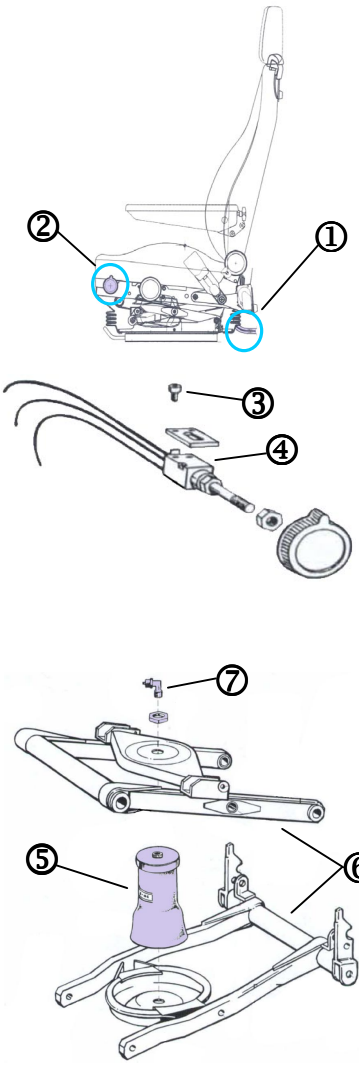
Inspection	Service Instruction	Illustration
1. **Check that the seat adjustment controls work normally and that foreign objects do not jam them.** **If the seat is fitted with an integrated restraint system (safety belt), check that all belt elements are undamaged.**	Remove objects, if any. If any adjustment control does not work normally – See service items 3-9. If any belt element is damaged, replace the entire belt kit. (See service item 12)	
2. **Check that the seat retains its adjusted height and that its spring action is satisfactory.**	If the controls do not work normally, that is, if you cannot raise or lower the seat, or if the seat has no spring action – check for availability of intake air and for leakage in the air connection. Check that the height limiter is released. (See also service item 9).	

Inspection	Service Instruction	Illustration
3. **Check lengthways adjustment.** ***Appliances:*** *Lint-free cloth* *Grease (Texando 20 or the equivalent)* *Brush* *Box wrench 13 mm* *Allen wrench 6 mm*	Lubricate the slide rails of the seat runner thinly with grease (Texando 20 or the equivalent). Move the seat to its end positions to paint the rails in between. Before lubricating, clean the slide rails with a lint-free cloth. Replace the slide rails, if the play (sideways or lengthways) of the slide rails exceeds 1 mm. The slide rails are replaced by unfastening the seat from its frame fastening (1). Move the seat to its front position to reach the rear bolts and to its rear position to reach the front bolts. Put the seat on its back, ease off the bolts (2) attaching the slide rails to the seat. To reach, move the slide rails to their end positions. Fit the new slide rails.	 

4. **Check the bolts and frame fastening of the seat.** ***Appliances:*** *Box wrenches* *Allen wrenches* *Appendix* *"Torque and Loctite Table"*	Check for loose bolts. Check the seat fastening to the floor pan or the frame (1). See the appendix for torque and Loctite instructions.	

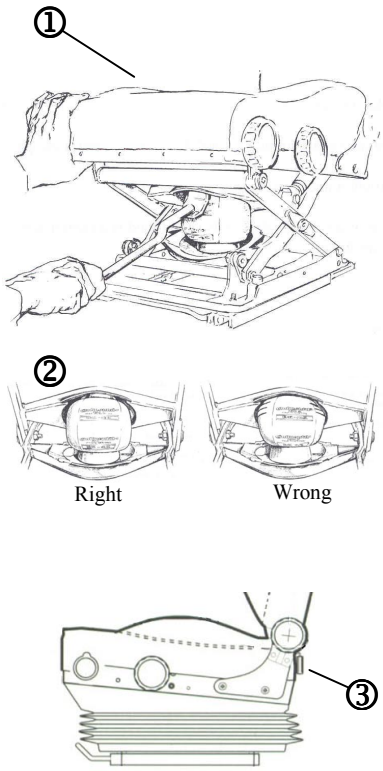
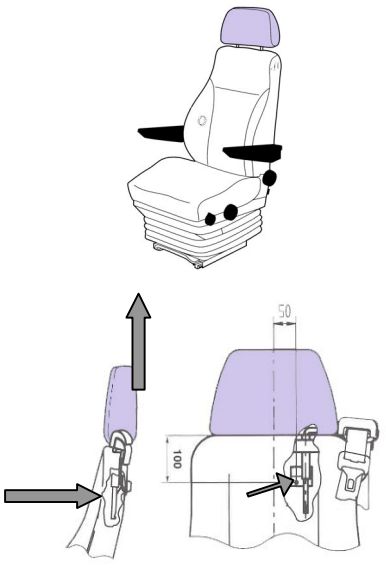
Inspection	Service Instruction g	Illustration
5. **Check that the seatback retains its adjusted angle.** ***Appliances:*** *Slotted chisel* *Box wrench* 17 mm *Allen wrench5 mm* *U-wrench 22 mm*	If the seatback does not keep position and does not keep the positioned angle, then the friction washer in the backrest switch needs to be adjusted. Loosen the wheel (1) and tighten the locking nut (2) against the plastic friction washer (3). Recommended dynamometric is 5 – 10 Nm. The wheel is then tightened towards the locking nut. Hold the locking nut with a wrench in order to keep the dynamometric towards the friction washer. In order to avoid that the shaft rotates, tighten the wheel on the opposite side in the same way as above. If the backrest has too much play between the backrest and seat an excenter washer (4) will prevent this. Loosen the protective bellow by taking away the plastic rivets on the backside of the seat, then fold down the protective bellow (see service item 6). Loosen the backrest both socket head cap bolts on the seats left side. Mount the ecxenter washer on the front bolt and adjust the excenter washer to the required adjustment according to sketch. In order to lock the excenter washer use the U-wrench on the front socket head cap bolt then the rear bolt. If further adjustment is required, then one more excenter washer can be mounted according to the above but with opposite direction of rotation in relation to the one on the left side. At extreme needs, the excenter washer can be mounted on the rear bolts.	 

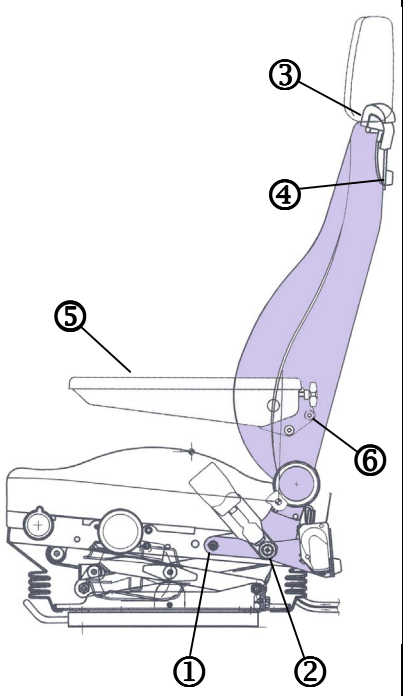
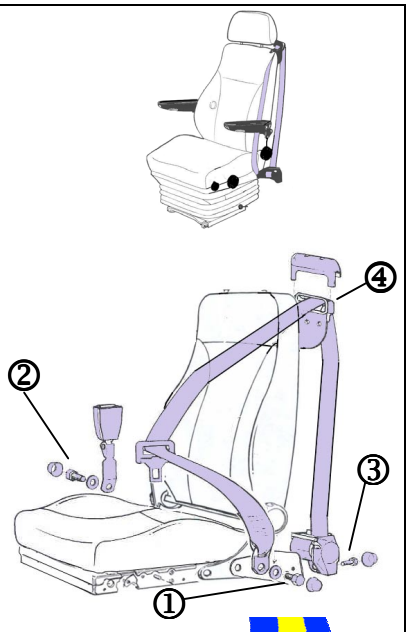
Inspection	Service Instruction	Illustration
6. **Dismantling of trim and foam on seat cushion** ***Appliances:*** *Slotted chisel*	The protective bellow is loosened by removing the plastic rivets (1). Unhook the trims fastening strap (2) from the seat frame (3) and remove the trimming and foam (4). If the seat is equipped with electrical heating (5), this must be disconnected before dismantling. Please note that the heating element is glued onto the seat foam. Caution should be taken if the seat foam is to be exchanged but the heating elements are re-used or the other way. For other tapestry, please see "Change of trim"	
7. **Check the seat cushions tilt function.**	If the seat cushions tilt function does not keep positioned angle or have to much play, then the seat base needs to be exchanged. ***This is a qualified measure of service and should be performed by experienced service personnel in a workshop.***	
8. **Check of the shock absorber.** ***Appliances:*** *Slotted chisel* *Box wrench* 13 mm *Allen wrench 5 mm*	If the shock absorber does not work in a satisfied way, make noise or leak, then it should be exchanged. In order to reach the shock absorber (1) the driver seat has removed out of the vehicle, back, trim and foam should be dismantled. (See service item 6, 11). Loosen the shock absorbers fastening bolts and nuts (2,3) and change the shock absorber. If the shock absorber does not fulfill the required absorption then there is a possibility to mount one more shock absorber on the opposite scissors side on the prepared fastening points.(4).	

Inspection	Service Instruction	Illustration
9. **Check the air suspension system.** ***Appliances:*** *Star chisel* *Allen wrench 6 mm,* *Box wrench* 27 mm *Loctite 243*	Check the air connections (1). Replace the part, if you notice visual damage or leakage. If the air valve (2) is defect then this needs to be replaced. Firstly, disconnect the air connection. In order to reach the valve, fold down the front of the protective bellow and remove the trim in the front of the seat and lift up the foam cushion. (See service item 6). Loosen the valves screws (3) and pull the valve forward (4). Disconnect the tubes and wheel. Change the valve and reconnect. Note that the tube connections are right and then reassemble the parts. Check the air spring (5). If the air spring is defect or worn it should be replaced. Disconnect the air connections (1) and tilt the seat cushion to its max. Dismantle the seat from its frame/vehicle. Lay the seat down on its back, and take apart the scissors leg (6). Remove the connection tube and angle nipple (7) on the top of the air spring. Loosen the air springs lower fastening bolt and remove the air spring. .	

Cont.

Cont.

Inspection	**Service Instruction**	**Illustration**
9. **Check the air suspension system.** ***Appliances:*** *Allen wrench 6 mm* *Crow bar/special appliances*	Mount the new air spring with the Be-Ge logo forward. Note! Do NOT retighten the lower bolt completely. Apply Loctite and screw on the angle nipple and reconnect the air connection. Place a crow bar or other special appliance from Be-Ge according to sketch (1). Connect compressed air and apply pressure on the air spring. Hold on to the air spring in order for it to clutch around the piston. Wrinkles or similar are not allowed, see sketch (2). If the mounting does not work then try with higher-pressure alternative loosening the air spring, turning it 180° and reconnecting the air spring. Tighten the lower bolt during pressure. Disconnect the air tube and lock the seat with the height limiter (3) before reassembling to the frame/vehicle. Reconnect the airsuspension tubes and loosen the height limiter.	
10. **Replacing the headrest.** ***Appliances:*** *Blunt tool or object, such as a hammer shaft or the equivalent*	The headrest is removed by depressing the locking clamp to the headrest, located in the seatback. Do this by applying pressure on the right side of the seatback, about 100 mm under the upper edge of the seatback, and about 50 mm from its outside. At the same time pull the headrest upward. This is applicable on all the seats with 3-point belt. Seat models without belt are not equipped with locking clamp; the headrest is easily pulled off.	

Inspection	Service Instruction	Illustration
11. **Replacing the seatback.** ***Appliances:*** *Box wrench 17 mm* *Allen wrench 5 mm* *Scissor, knife or similar*	Loosen the protective bellow by removing the plastic rivets on the seats back and fold down the protective bellow (service item 6). Dismantle the seatback by loosing the socket head cap bolts (1) on the right and left hand side then the rear safety belt bolts (2) on the right and left hand side. To reassemble the new seatback, enter the front socket head cap bolts (1) and then the rear bolts (2). Use the dynamometric 42Nm on the rear bolts and 33Nm on the front bolts. If the seat is equipped with 3-point safety belt, the belt deflection unit (3) is removed to the new seatback by removing the lid and loosening the bolt (4). If the seat is equipped with armrest (5), these are removed to the new seat by loosening the 3 bolts at the fastening point of the armrest (6). Before assembling the belt deflection unit or/and armrest on the new seatback, new wholes are done like the previous seatback by scissors, knife or similar	
12. **Replacing the safety belt.** ***Appliances:*** *Box wrench 17 mm*	Loosen the protective bellow by removing the plastic rivets on the seats back and fold down the protective bellow (service item 6). Unfasten the retractor (3) from the seat. Unfasten the belt anchorage (1) and the buckle unit (2) on each side of the seat, and unfasten the belt deflection unit (4). Reassemble by first fixing the belt deflection unit to obtain the correct angle of the belt, and then the other points of attachment. Tighten all belt bolts at torque 42 Nm. (Tolerance +/- 15%)	

Appendix 1
Change of trim Be-Ge 9000

1

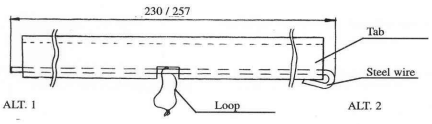
BE-GE
Establ. 1934
Driver seats / Office chairs

Change of trim

Please read these instructions carefully, before you start changing the trim.

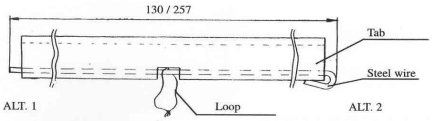
Seat Cushion Trim

* Take the seat cushion trim and enter the long steel wire half-way through the tab and put a loop on. Then enter the steel wire through the entire tab.



Backrest Trim

* Take the backrest trim and enter the short steel wire half-way through the tab and put on a loop. Then enter the steel wire through the entire tab.



673150

* Dismount the back frame from the seat frame by removing the four screws.

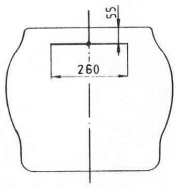
*1) Dismount the headrest sleeves.

*2) Remove the lumbar support knob.

* Remove the old trim from both seat and back frames, be careful with the foam.

Seat cushion

Make a hole with a drift through the seat foam, 55 mm from the rear edge.
Make a notch, approx. 10 mm deep and 260 mm long. (Knife).



*3) If the electric loop covers hole and notch, fold the loop double at the rear edge.

* Take foam and trim, pull the loop through the foam, fix the loop with the catch pin at the foam underside. See to it that the strip and the pin are placed in the notch.

* Trim the seat as usual.

1) If the seat has headrest sleeves.
2) If the seat has lumbar support.
3) If the seat has an electric loop.

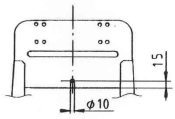
673150

2

Back foam

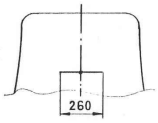
* The foam must be removed from the back frame.

* Drill a hole diam. 10 mm, in the back plate at a distance of 15 mm from the lower edge in the centre.



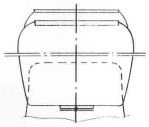
* Make a hole with a drift in the foam corresponding to the hole in the back plate.

Make a notch, approx. 260 mm long and 7 mm deep. (Knife).



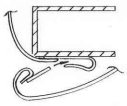
*3) If the electric loop covers hole and notch, remove the loop and place it below the hole and notch. (Glue). Be careful with the foam.

* Put on the upper half of the back trim, then pull the loop through both foam and back plate. Lock the loop with the back knob. Assure that both loop and pin are placed in the notch.



3) If the seat has an electric loop.

* Pull down the rest of the trim, check that foam and trim are placed correctly. Wrap around the thin plastic tape once and tuck it into the U-profile. Bottom up the trim.



*1) Make a hole in the trim for the headrest sleeves by carefully tapping against the tube sleeves. Then mount the headrest sleeves by carefully tapping them down.

*2) Make a hole in the trim for the lumbar support adjustment knob by carefully tapping against the shaft. Mount the lumbar support knob.

Assemble the seat frame and the back frame.

* CATCH PIN 

* REAR KNOB 

* LOOP 

* FASTENING LOOP The loop is sewed to the trim.

* Make a "hook" that facilitates the pulling of the loop.

1) If the seat has headrest sleeves.
2) If the seat has a lumbar support.

Art.Nr 673150

Be-Ge Industri AB
Box 912 SE-572 29 Oskarshamn, Sweden Tel. +46(0)491-761800.
Fax +46(0)491-81900. info@be-ge.se www.be-ge.com

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ERSÄTTER 050408
GODKÄND……

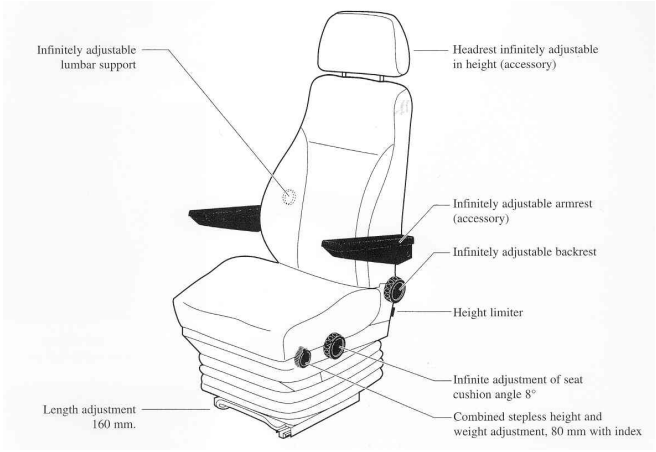
Appendix 2
Torque and Loctite® Chart Be-Ge 9000

Item	Art no	Qty	Belonging to	Moment Nm	Loctite **	Remarks
Screw RXS ST3.5x19 SV.KR POZ	650018	2-4	Bottom frame	(1)*	-	
Bearing bolt	500330	2	Scissors system	47	2	Airsuspended seat
Bearing bolt	500393	4	Scissors system	47	2	
Bearing bolt	620874	4	Scissors system	47	2	
Bearing bolt	500396	2	Scissors system	47	2	
Nut M10 Triloc FZB K8	500413	10	Scissors, seat frame	47	2	
Screw MF6S M8x40 FZB 8.8	650054	1	Shock absorber	24	2	Airsuspended seat
Screw M6S M8x40 FZB 8.8	650015	1	Shock absorber	24	2	Airsuspended seat
Nut M8 Triloc FZB K8	210401	2-4	Shock absorber, compressor	24	2	
Screw MC6S M5x10 FZB 8.8	650062	2	Air valve, cover Airvent	5	-	
Screw MC6S M8x20 FZB 8.8	500302	2-4	Sliding rails	24	-	
Screw MC6LS M8x25 FZB 8.8	650017	2	Sliding rails	24	-	Seat with 3-point belt
Nut M6M M8 FZB K8	210400	4	Sliding rails	24	-	
Screw MF6S M8x20 SV.KR 10.9	310930	4	Back frame	33	1	
Nut M6M M8 SV.KR K8	651011	1	Wheel, lumbar support	24	-	
Nut ML6M M10 FZB K5	210403	4-6	Wheels	24	-	
Screw UNF 7/16	-	2	Tether strap	42	3	Seat with belt
Screw UNF 7/16	-	2-4	2P 3P Belt	42	3	Seat with belt
Nut M6M M4 FZB K8	501391	1	Summer	(2)*	-	
Screw MRX M4x16 FZB	501390	1	Summer	(1)*	-	
Screw K6S M8x16 SV.KR 10.9	650021	2	Built-in compressor	24	2	
Hose clip	628680	1	Built-in compressor	(10)*	-	
GT-Valve	621080	1	Built-in compressor	(5)*	-	
Screw RXS ST2.9x38 FZB POZ	650063	3	Fan, seat, Airvent	(1)*	-	
Screw ECS M3x25 FZB 4.8	650061	3	Fan, back, Airvent	(1)*	-	
Screw MRX-TT M4x6 SV.KR POS	650037	2	Cover, Airvent	(1)*	-	
Nut M6M M5 FZB K8	500496	1	Cover, Airvent	(2)*	-	
Screw RXS ST3.5x19 SV.KR POZ	650018	4	Grill Airvent	(1)*	-	
Screw MF6S M10x16 obeh. 10.9	500231	1	Air spring	10	-	9000 Airsuspended seat
Angled nippel 1500-6/4-1/8	500228	1	Air spring	(3)*	1	9000 Airsuspended seat Max thread 8,2 mm
Nut for air spring	500331	1	Air spring	(10)*	-	9000 Airsuspended seat

* No moment tightening tolerance Moment Tolerance ± 15 %
** 1) Blue Loctite 243 (Soft)
** 2) Green Loctite 270 (Hard)

Appendix 3

Troubleshooting Chart Be-Ge 91**



Problem	Possible reason	Remedy
Airsuspended Be-Ge 9000 (91)**		
Impossible to mount the headrest	Burnt-in weld in the headrest grommet, Placed in the backrest	Drill the grommet with 10 mm boring approx. 200 mm
2-way headrest is not fixed in required position	The headrest grommet has wrong angles.	Bent the grommets slightly outwards.
4- way headrest is not fixed in required position	The headrest grommet has wrong dimension	Change the headrest grommets.
The backrest seems to have to much play	Too much play in the backrest switch	Decrease the play by mounting excenter washers.
The seat seems slanting	The bearing bolt in the outer spring scissors is loose.	Retain the right position and tighten bolt with loctite
The seats control wheels are loose	The inner locking nut is loose.	Lock the wheel by tightening the locking nut.
The driver feels strokes from the riding.	Defect shock absorber	Replace the shock absorber
	The damping is insufficient	Mount 2 shock absorbers
The sliding rails seem to have to much play.	Defect bearing balls in the rails.	Replace the sliding rails.
The sliding rails seem stiff	The rails do not run freely from the basement	Check that the spacers are mounted between seat and the basement.
	Dirty rails	Clean and re-lubricate the rails.
The air riding out of function or does not work properly	Air valve leakage	Replace the valve
	The air connection hose is not properly mounted.	Check that the air connection hose is mounted and correctly connected to the seat.
	The air connection hose is squeezed	Replace the air connection hose
	The air supply is out of function	Check the air supply in the vehicle.
	Defect air spring	Replace the air spring
	The transport locking is connected	Disconnect the transport locking