



## Contents

<b>00 - Technical data</b>	<b>1</b>
<b>1 Safety instructions</b>	<b>1</b>
1.1 Safety measures for working on vehicles with high voltage system	1
1.2 Safety measures when working in the vicinity of high-voltage components	2
1.3 Safety precautions when working on vehicles with a start/stop system	2
1.4 Safety precautions during road tests in which testing and measuring equipment is used	3
1.5 Safety precautions when working on the assembly carrier	3
<b>2 Repair instructions</b>	<b>4</b>
2.1 Leaks on shock absorbers	4
2.2 Noises on shock absorbers	4
2.3 Inspecting the removed shock absorber	5
2.4 Steering gear	6
2.5 Seals and sealing rings	6
2.6 Screws, nuts	6
2.7 Electrical components	6
2.8 Raise wheel bearing in unladen state on vehicles with coil springs	6
<b>3 Accident vehicle assessment</b>	<b>9</b>
3.1 Checklist for assessing the chassis of accident vehicles	9
<b>4 Disposal</b>	<b>11</b>
4.1 Degas front gas-filled shock absorber, and empty.	11
4.2 Degas rear gas-filled shock absorber, and empty.	11
<b>40 - Front suspension</b>	<b>13</b>
<b>1 Front axle</b>	<b>13</b>
1.1 Installation overview - front axle	13
<b>2 Assembly carrier</b>	<b>14</b>
2.1 Summary of components- assembly carrier	14
2.2 Removing and installing assembly carrier without steering gear	16
2.3 Fixing the assembly carrier	18
2.4 Lower assembly carrier	21
<b>3 Anti-roll bar</b>	<b>24</b>
3.1 Summary of components - anti-roll bar	24
3.2 Removing and installing the anti-roll bar	26
<b>4 Suspension strut, upper suspension link</b>	<b>30</b>
4.1 Assembly overview - suspension strut, upper suspension link	30
4.2 Removing and installing the suspension strut	32
4.3 Repairing suspension strut	39
<b>5 Bottom track control arm, suspension link</b>	<b>43</b>
5.1 Summary of components - Lower track control arm. suspension link	43
5.2 Removing and installing the lower track control arm	45
5.3 Inspecting the suspension link	47
5.4 Removing and installing the suspension link	48
5.5 Replacing the rubber-metal bearing for lower track control arm	51
<b>6 Wheel bearing</b>	<b>56</b>
6.1 Summary of components - Wheel bearing	56
6.2 Removing and installing wheel bearing housing	57
6.3 Removing and installing wheel-bearing unit	62
<b>7 Drive shaft</b>	<b>73</b>
7.1 Summary of components - cardan shaft	73
7.2 Removing and installing cardan shaft	75
7.3 Disassembling and assembling cardan shaft	81



7.4	Check outer joint	86
<b>42</b>	<b>- Rear suspension</b>	<b>89</b>
<b>1</b>	<b>Rear axle</b>	<b>89</b>
1.1	Overview - rear axle	89
1.2	Removing and installing rear suspension	89
1.3	Lowering rear axle	97
<b>2</b>	<b>Axle beam</b>	<b>100</b>
2.1	Summary of components- axle beam	100
2.2	Replacing rubber-metal bearing for axle beam	102
<b>3</b>	<b>Suspension strut/shock absorber, spring</b>	<b>106</b>
3.1	Summary of components - Suspension strut/shock absorber, spring	106
3.2	Removing and installing shock absorber	107
3.3	Repairing the shock absorber	110
3.4	Removing and installing spring	113
<b>4</b>	<b>Wheel bearing, trailing arm</b>	<b>115</b>
4.1	Summary of components - Wheel bearing	115
4.2	Removing and installing wheel-bearing unit	116
<b>44</b>	<b>- Wheels, tyres, vehicle geometry</b>	<b>120</b>
<b>1</b>	<b>Wheels, Tyres</b>	<b>120</b>
1.1	Wheel change	120
1.2	Tightening torque of the wheel screws	124
1.3	Breakdown set	124
1.4	Tyre sealant	125
1.5	Disposing of tyre sealant	125
<b>2</b>	<b>Carry out axle alignment</b>	<b>126</b>
2.1	Notes on axle alignment	126
2.2	Test conditions	127
2.3	Nominal values for the axle alignment	128
2.4	Need for axle alignment	131
2.5	Explanation of the consecutive number (PR No.)	132
2.6	Overview of the work sequence for the axle alignment	133
2.7	Camber correction on the front axle	134
2.8	Checking the camber on the rear axle	135
2.9	Checking the track on the rear axle	136
2.10	Adjust the track on the front axle	136
2.11	Checking the left and right steering angle	136
2.12	Check position of steering wheel, align if necessary	138
<b>48</b>	<b>- Steering</b>	<b>141</b>
<b>1</b>	<b>Steering wheel</b>	<b>141</b>
1.1	Steering wheel - Summary of components	141
1.2	Removing and installing the steering wheel	142
<b>2</b>	<b>Steering column</b>	<b>144</b>
2.1	Summary of components - steering column	144
2.2	Observe handling and transportation of the steering column	151
2.3	Removing and installing steering column	153
2.4	Installing and removing intermediate shaft of steering column	188
2.5	Removing and installing J500steering column electronics control unit	189
<b>3</b>	<b>Steering gear</b>	<b>204</b>
3.1	Summary of components - steering gear	204
3.2	Removing and installing steering gear	205
3.3	Removing and installing track rod	209
3.4	Removing and installing track rod ends	212



---

3.5	Repairing steering box .....	213
3.6	Adjusting steering box .....	215