

Contents

00 - Technical data	1
1 Safety information	1
1.1 Safety information	1
2 Repair instructions	2
2.1 Repair instructions	2
2.2 Repairing wheel bearing housing	2
3 Electrical components	9
3.1 Starting diagnosis	9
40 - Front suspension	12
1 Safety and repair instructions	12
1.1 Safety information	12
1.2 Repair instructions	12
2 Front axle	13
2.1 Overview - front axle	13
3 Subframe	14
3.1 Exploded view - subframe	14
3.2 Removing and installing subframe with steering rack	16
3.3 Removing and installing support bracket for subframe	26
3.4 Removing and installing reinforcement (rear)	28
4 Suspension strut, upper links	29
4.1 Assembly overview - suspension strut, upper suspension links	29
4.2 Removing and installing suspension strut	30
4.3 Servicing suspension strut	33
4.4 Removing and installing upper suspension links	35
4.5 Assembly overview - strut brace	37
4.6 Removing and installing strut brace	38
4.7 Charging suspension strut	40
4.8 Front air spring strut - discharging and damage assessment	42
5 Lower suspension links, swivel joint	45
5.1 Exploded view - lower suspension link, swivel joint	45
5.2 Removing and installing lower suspension link	46
5.3 Renewing bonded rubber bushes for lower suspension link	49
5.4 Renewing bonded rubber bushes for suspension strut	50
6 Wheel bearings	52
6.1 Exploded view - wheel bearing	52
6.2 Removing and installing wheel bearing housing	52
6.3 Renewing wheel bearing	54
6.4 Lifting suspension to unladen position	58
7 Drive shaft	60
7.1 Assembly overview - drive shaft	60
7.2 Removing and installing drive shaft	64
7.3 Loosening and tightening nut/bolt securing drive shaft	65
7.4 Dismantling and assembling drive shaft	68
7.5 Tensioning clamp for boot	70
8 Anti-roll bar	72
8.1 Exploded view - anti-roll bar	72
8.2 Removing and installing anti-roll bar	72
8.3 Removing and installing coupling rod	73
42 - Rear suspension	75



1	Safety and repair instructions	75
1.1	Safety information	75
1.2	Repair instructions	75
2	Rear axle	76
2.1	Overview of fitting locations - rear axle	76
3	Subframe	77
3.1	Assembly overview - subframe	77
3.2	Removing and installing subframe	77
3.3	Servicing subframe	88
3.4	Removing and installing brace	96
4	Anti-roll bar	99
4.1	Assembly overview - anti-roll bar	99
4.2	Removing and installing anti-roll bar	99
4.3	Removing and installing coupling rod	102
4.4	Renewing anti-roll bar bushes	104
5	Suspension links, track rod	106
5.1	Assembly overview - transverse links	106
5.2	Removing and installing upper transverse links	109
5.3	Removing and installing lower transverse links	110
5.4	Removing and installing track rod	113
5.5	Renewing hydro-bush for lower transverse link	114
5.6	Removing and installing wind deflector	116
5.7	Removing and installing brace for track rods	116
6	Suspension strut/shock absorber, spring	118
6.1	Assembly overview - suspension strut/shock absorber, spring	118
6.2	Removing and installing shock absorber	121
6.3	Servicing shock absorber	123
6.4	Handling and transporting air spring	124
6.5	Removing and installing spring	124
7	Wheel bearing, trailing arm	130
7.1	Exploded view - wheel bearing	130
7.2	Removing and installing wheel bearing housing	130
7.3	Renewing bush for suspension link	132
7.4	Renewing wheel bearing	135
7.5	Lifting suspension to unladen position	139
8	Drive shaft	141
8.1	Assembly overview - drive shaft	141
8.2	Removing and installing drive shaft	145
8.3	Dismantling and assembling drive shaft	146
8.4	Loosening and tightening nut/bolt securing drive shaft	148
8.5	Tightening clamp for boot	150
43	Self-levelling suspension	152
1	Safety and repair instructions	152
1.1	Safety information	152
1.2	Repair instructions	152
2	Electronic damping control	153
2.1	Overview of fitting locations - electronic damping control	153
2.2	Basic setting of electronic damper control	155
2.3	Removing and installing running gear control unit J775	155
3	Vehicle level senders	157
3.1	Exploded view - front vehicle level senders	157
3.2	Exploded view - rear vehicle level senders	157
3.3	Removing and installing front vehicle level sender G78/G289	159

3.4	Removing and installing rear vehicle level senders G76/G77	159
4	Air suspension	161
4.1	Overview of fitting locations - electrical components	161
4.2	Overview of fitting locations - air suspension	161
4.3	Assembly overview - air lines	162
4.4	Assembly overview - air supply unit	164
4.5	Setting normal level and permanently disabling control	166
4.6	Re-adapting normal level	166
4.7	Bleeding and charging air spring system	166
4.8	Checking air suspension for leaks	167
4.9	Removing and installing adaptive suspension compressor electronics J1135	169
4.10	Repairing air lines	170
4.11	Renewing connection piece	172
4.12	Removing and installing air supply unit	173
4.13	Removing and installing filter	176
4.14	Removing and installing solenoid valve block	176
4.15	Removing and installing accumulator	178
4.16	Removing and installing front body acceleration senders G341/G342	179
4.17	Removing and installing rear body acceleration senders G699/G700	180
4.18	Removing and installing front wheel acceleration senders G337/G338	181
4.19	Removing and installing rear wheel acceleration senders G339/G340	181
44	Wheels, tyres, vehicle geometry	183
1	Safety and repair instructions	183
1.1	Safety information	183
1.2	Repair instructions	183
2	Wheel alignment	184
2.1	Notes on wheel alignment	184
2.2	Test requirements	184
2.3	Wheel alignment procedure	184
2.4	Wheel alignment specifications	185
2.5	When does wheel alignment have to be checked?	186
2.6	Explanatory notes on production control numbers (PR numbers)	187
2.7	Adjusting camber at front wheels	187
2.8	Adjusting camber at rear wheels	190
2.9	Adjusting toe setting at rear wheels	190
2.10	Adjusting toe setting at front wheels	191
2.11	Wheel runout compensation	192
2.12	Checking maximum steering angle	193
3	Wheels, tyres	194
3.1	Assembly overview - wheel	194
3.2	Removing and installing wheel	196
3.3	Cleaning contact surfaces on rim	198
3.4	Positioning anti-theft wheel bolts - steel wheels	199
4	Tyre Pressure Loss Indicator / Tyre Pressure Monitoring System	200
4.1	Assembly overview - tyre pressure sensor	200
4.2	Removing and installing Tyre Pressure Monitoring System control unit J502	200
4.3	Removing and installing tyre pressure sensor - version 1	201
48	Steering	204
1	Safety and repair instructions	204
1.1	Safety information	204
1.2	Repair instructions	204
2	Steering wheel	205
2.1	Exploded view - steering wheel	205



2.2	Removing and installing steering wheel	207
3	Steering column	208
3.1	Assembly overview - steering column	208
3.2	Removing and installing steering column	209
3.3	Removing and installing intermediate steering shaft	211
3.4	Removing and installing control unit for electronic steering column lock J764	214
3.5	Removing and installing control unit for electrically adjustable steering column J866	214
4	Steering rack	216
4.1	Assembly overview - steering rack	216
4.2	Assembly overview - track rods	216
4.3	Removing and installing steering rack	218
4.4	Removing and installing boot	220
4.5	Removing and installing track rod	222
4.6	Removing and installing track rod ball joint	223
4.7	Re-adapting end stops	224
5	Rear wheel steering rack	226
5.1	Assembly overview - rear wheel steering rack	226
5.2	Removing and installing rear wheel steering rack	227
5.3	Bringing rear wheel steering rack into zero position	227