

Contents

00 - Technical data	1
1 General notes	1
1.1 Running gear	1
1.2 Steering	1
1.3 Types of tyre	1
1.4 General notes on Tyre Pressure Loss Indicator (TPLI+)	1
1.5 General notes on drive shaft	2
2 Safety precautions	4
2.1 Safety precautions when working on vehicles with start/stop system	4
2.2 Safety precautions when working on the subframe	4
2.3 Safety precautions when using testers and measuring instruments during a road test	5
3 Repair instructions	6
3.1 Leaks at shock absorbers	6
3.2 Checking shock absorbers when removed	6
3.3 Checking shock absorbers on shock tester	7
3.4 Maximum values "a" in mm	8
3.5 Rules for cleanliness	9
3.6 General notes	9
3.7 General repair instructions	10
3.8 Contact corrosion	10
3.9 Steering rack	10
3.10 Gaskets and seals	10
3.11 Nuts, bolts	11
3.12 Electrical components	11
3.13 Repairing damaged threads in longitudinal member (subframe to body)	11
3.14 Lifting suspension to unladen position - vehicles with coil springs	11
4 Disposal	14
4.1 Releasing gas and draining front gas-filled shock absorbers	14
4.2 Releasing gas and draining rear gas-filled shock absorbers	15
40 - Front suspension	16
1 Subframe	16
1.1 Exploded view - subframe	16
1.2 Removing and installing subframe without steering rack	17
1.3 Removing and installing subframe with steering rack	22
1.4 Servicing subframe	27
1.5 Removing and installing anti-roll bar	37
1.6 Removing and installing coupling rod	42
1.7 Fixing position of subframe	43
1.8 Lowering subframe	45
2 Suspension strut, upper links	50
2.1 Exploded view - suspension strut, upper links	50
2.2 Removing and installing suspension strut	51
2.3 Servicing suspension strut	56
3 Lower wishbone, swivel joint	59
3.1 Exploded view - lower wishbone, swivel joint	59
3.2 Removing and installing lower wishbone	60
3.3 Renewing mounting bracket with wishbone bush	63
3.4 Removing and installing swivel joint	65
3.5 Renewing bonded rubber bush for lower wishbone	67
4 Wheel bearing	70
4.1 Exploded view - wheel bearing	70



4.2	Removing and installing wheel bearing housing	71
4.3	Removing and installing wheel bearing unit	75
5	Drive shaft	78
5.1	Exploded view - drive shaft	78
5.2	Removing and installing drive shaft	85
5.3	Loosening and tightening bolt securing drive shaft	104
5.4	Removing and installing heat shield for drive shaft	105
5.5	Servicing constant velocity joint	106
5.6	Checking outer constant velocity joint	125
5.7	Checking inner constant velocity joint	126
42	Rear suspension	129
1	Subframe	129
1.1	Exploded view - subframe	129
1.2	Removing and installing subframe	132
1.3	Servicing subframe	143
2	Anti-roll bar	152
2.1	Exploded view - anti-roll bar	152
2.2	Removing and installing anti-roll bar	152
2.3	Removing and installing coupling rod	154
3	Suspension links, track rod	156
3.1	Exploded view - transverse links	156
3.2	Exploded view - track rod	158
3.3	Removing and installing upper transverse link	158
3.4	Removing and installing lower transverse links	162
3.5	Removing and installing track rod	166
4	Suspension strut/shock absorber, spring	170
4.1	Exploded view - suspension strut/shock absorber, spring	170
4.2	Removing and installing shock absorber	171
4.3	Servicing shock absorber	172
4.4	Removing and installing spring	174
5	Wheel bearing, trailing arm	177
5.1	Exploded view - wheel bearing	177
5.2	Removing and installing wheel bearing housing	180
5.3	Removing and installing wheel bearing unit	188
5.4	Renewing bonded rubber bush for wheel bearing housing	193
5.5	Removing and installing trailing arm with mounting bracket	200
5.6	Servicing trailing arm	207
6	Drive shaft	213
6.1	Exploded view - drive shaft	213
6.2	Removing and installing drive shaft	217
6.3	Dismantling and assembling drive shaft	219
6.4	Loosening and tightening bolt securing drive shaft	229
6.5	Checking outer constant velocity joint	231
6.6	Checking inner constant velocity joint	232
43	Self-levelling suspension	235
1	Electronic damping control	235
1.1	Overview of fitting locations - electronic damping control	235
1.2	Removing and installing electronically controlled damping control unit J250	236
1.3	Removing and installing front body acceleration senders G341 / G342	237
1.4	Removing and installing rear body acceleration sender G343	240
2	Vehicle level senders	242
2.1	Exploded view - front vehicle level sender	242
2.2	Exploded view - rear vehicle level sender	243

2.3	Removing and installing front vehicle level senders G78 / G289	243
2.4	Removing and installing rear vehicle level senders G76 / G77	244
44	Wheels, tyres, vehicle geometry	246
1	Wheels, tyres	246
2	Wheel alignment	247
2.1	Notes on wheel alignment	247
2.2	Test requirements	248
2.3	Preparations for measurement	249
2.4	Wheel alignment specifications	250
2.5	Wheel alignment procedure	251
2.6	When does wheel alignment have to be checked?	252
2.7	Explanatory notes on production control numbers (PR numbers)	252
2.8	Adjusting camber at front wheels	253
2.9	Adjusting camber at rear wheels	254
2.10	Adjusting toe setting at rear wheels	256
2.11	Adjusting toe setting at front wheels	257
2.12	Wheel runout compensation	257
2.13	Checking full steering lock	257
3	Front camera for driver assist systems	259
3.1	Calibrating front camera for driver assist systems	259
48	Steering	266
1	Steering wheel	266
1.1	Exploded view - steering wheel	266
1.2	Removing and installing steering wheel	267
2	Steering column	268
2.1	Exploded view - steering column	268
2.2	Checking steering column for damage	269
2.3	Handling and transporting steering column	269
2.4	Removing and installing steering column	270
2.5	Removing and installing control unit for electronic steering column lock J764	275
3	Steering rack	277
3.1	Exploded view - steering rack	277
3.2	Removing and installing steering rack	279
3.3	Removing and installing boot	280
3.4	Removing and installing track rod	283
3.5	Servicing steering rack	286