



## Contents

<b>00 - Technical data</b>	<b>1</b>
<b>1 Brake allocation via PR No.</b>	<b>1</b>
1.1 Front brakes	1
1.2 Rear brakes	2
<b>2 Technical data for brakes</b>	<b>3</b>
2.1 Brake master cylinder and brake booster	3
2.2 Front brakes	3
2.3 Rear brakes	4
<b>3 Brake test</b>	<b>6</b>
3.1 General	6
3.2 Test for vehicles with front-wheel drive	6
<b>45 - Anti-lock brake system</b>	<b>7</b>
<b>1 General notes for anti-lock brake system (ABS)</b>	<b>7</b>
1.1 Bosch 8.2 and 9.0	7
<b>2 Notes for repair work on anti-lock brake system</b>	<b>9</b>
<b>3 Connecting VAS 5051 and selecting functions</b>	<b>10</b>
<b>4 Electrical/electronic components and locations</b>	<b>12</b>
4.1 Bosch 8.2; 9.0 ABS	12
4.2 Bosch 8.2i; 9.0i ABS/EDL/TCS/ESP	13
<b>5 Fault display via warning lamps</b>	<b>15</b>
<b>6 Assembly overview - hydraulic unit, brake booster/brake master cylinder</b>	<b>17</b>
6.1 Bosch 8.2; 9.0 ABS, LHD vehicles	17
6.2 Bosch 8.2; 9.0 ABS, RHD vehicles	26
6.3 Bosch 8.2i; 9.0i ABS/EDL/TCS/ESP, LHD vehicles	35
6.4 Bosch 8.2i; 9.0i ABS/EDL/TCS/ESP, RHD vehicles	46
<b>7 Removing and installing parts of ABS system on front and rear axle</b>	<b>56</b>
7.1 Removing and installing parts of ABS system on front axle	56
7.2 Removing and installing parts of anti-lock brake system on rear axle (drum brakes)	57
7.3 Removing and installing parts of anti-lock brake system on rear axle (disc brakes)	59
<b>8 Removing and installing parts of ESP system</b>	<b>62</b>
8.1 Removing and installing yaw rate sender G202 and lateral acceleration sender G200	62
8.2 Removing and installing steering angle sender G85	62
<b>46 - Brakes - mechanism</b>	<b>63</b>
<b>1 Repairing front brakes</b>	<b>63</b>
1.1 Repairing front brakes, FS III brake caliper	63
1.2 Removing and installing brake pads, brake caliper FS III	64
1.3 Removing and installing brake caliper FS III	66
1.4 Repairing front brakes, FN 3 brake caliper	68
1.5 Removing and installing brake pads, brake caliper FN 3	70
1.6 Removing and installing brake caliper FN 3	72
<b>2 Repairing rear brakes (drum brakes)</b>	<b>75</b>
2.1 Removing and installing rear brakes	76
2.2 Resetting brake	77
2.3 Repairing rear brakes	77
2.4 Removing and installing brake shoes	79
<b>3 Repairing rear brakes (disc brakes)</b>	<b>82</b>
3.1 Removing and installing brake pads/linings	83
3.2 Removing and installing brake caliper	86
<b>4 Assembly overview - handbrake lever</b>	<b>88</b>



4.1	Removing and installing handbrake cable (drum brakes)	89
4.2	Adjusting handbrake	91
4.3	Removing and installing handbrake cable (disc brakes)	92
4.4	Adjusting handbrake	94
<b>5</b>	<b>Assembly overview - brake pedal</b>	<b>96</b>
5.1	Assembly overview - brake pedal, left-hand drive	96
5.2	Assembly overview - brake pedal, right-hand drive	99
<b>47 - Brakes - hydraulics</b>		<b>103</b>
<b>1</b>	<b>Repairing front brake calipers</b>	<b>103</b>
1.1	Repairing FS III brake calipers	103
1.2	Removing and installing brake caliper FS III	103
1.3	Repairing FN 3 brake calipers	105
1.4	Removing and installing brake caliper piston FN 3	106
<b>2</b>	<b>Repairing rear brake calipers</b>	<b>110</b>
2.1	Removing and installing rear brake caliper piston	110
<b>3</b>	<b>Pressurised leak test</b>	<b>113</b>
3.1	Test prerequisites:	113
<b>4</b>	<b>Bleeding brake system</b>	<b>114</b>
4.1	Bleeding brake system with brake filling and bleeding equipment VAS 5234	114
4.2	Changing brake fluid	116
<b>5</b>	<b>Assembly overview - brake booster/brake master cylinder</b>	<b>117</b>
5.1	Assembly overview - brake booster/brake master cylinder (left-hand drive vehicle)	117
5.2	Assembly overview - brake booster/brake master cylinder (right-hand drive vehicle)	118
5.3	Vacuum pump for brake booster (vehicles with diesel engine)	120
5.4	Checking brake booster vacuum system	120
5.5	Checking non-return valve	124
5.6	Vacuum pump for brakes V192	124
5.7	Removing and installing brake booster pressure sensor G294	126
5.8	Removing and installing brake light switch F , left-hand drive	127
5.9	Removing and installing brake light switch F , right-hand drive	127
<b>6</b>	<b>Removing and installing brake master cylinder</b>	<b>129</b>
6.1	Removing and installing brake master cylinder, left-hand drive	129
6.2	Removing and installing brake master cylinder, right-hand drive vehicle	130
<b>7</b>	<b>Removing and installing brake booster</b>	<b>134</b>
7.1	Removing and installing brake booster, left-hand drive	134
7.2	Removing and installing brake booster, right-hand drive vehicle	137
<b>8</b>	<b>Repairing brake lines</b>	<b>144</b>
8.1	Assembly overview - flanging tool	144
8.2	Work instructions	145