



## 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 (disc brakes) .....	2
1.3 Rear brakes (drum brakes) .....	3
<b>2 Technical data</b> .....	<b>4</b>
2.1 Brake master cylinder and brake servo .....	4
2.2 Front brakes .....	4
2.3 Rear brakes .....	6
<b>3 Brake test</b> .....	<b>9</b>
3.1 General .....	9
3.2 Test for vehicles with front-wheel drive .....	9
3.3 Test for vehicles with four-wheel drive via a Haldex clutch. ....	9
<b>45 - Anti-lock brake system</b> .....	<b>11</b>
<b>1 General notes for anti-lock brake system (ABS)</b> .....	<b>11</b>
1.1 ABS Mark 20 IE .....	11
1.2 ABS Mark 60 .....	12
<b>2 Notes for repairs on anti-lock brake system</b> .....	<b>14</b>
<b>3 Connecting VAS 5051 and selecting functions</b> .....	<b>15</b>
<b>4 Electrical/electronic components and fitting locations</b> .....	<b>17</b>
4.1 ABS, ABS/EDL and ABS/EDL/TCS Mark 20 IE .....	17
4.2 ABS/EDL/TCS/ESP Mark 20 IE .....	19
4.3 ABS Mark 60 .....	21
<b>5 Faults displayed via warning lamps</b> .....	<b>23</b>
5.1 ABS Mark 20 IE .....	23
5.2 ABS Mark 60 .....	25
<b>6 Assembly overview - hydraulic unit, brake servo/brake master cylinder</b> .....	<b>28</b>
6.1 ABS Mark 20 IE .....	28
6.2 ABS Mark 60 .....	34
<b>7 Removing and installing parts of ABS system on front and rear axle</b> .....	<b>42</b>
7.1 Removing and installing parts of ABS system on front axle .....	42
7.2 Removing and installing parts of ABS system on rear axle - Front-wheel drive .....	47
7.3 Removing and installing parts of ABS system on rear axle - four-wheel drive .....	50
<b>8 Removing and installing parts of ESP system</b> .....	<b>54</b>
8.1 Removing and installing yaw rate sender G202 and lateral acceleration sensor G200 ..	54
8.2 Removing and installing longitudinal acceleration sender -G251- .....	56
8.3 Removing and installing ESP sensor unit G419 .....	57
8.4 Removing and installing steering angle sender G85 .....	58
<b>46 - Brakes - mechanism</b> .....	<b>61</b>
<b>1 Repairing front brakes</b> .....	<b>61</b>
1.1 Repairing front brakes, FS III brake caliper .....	61
1.2 Removing and installing brake pads .....	63
1.3 Repairing front brakes, FN 3 brake caliper .....	66
1.4 Removing and installing brake pads .....	68
1.5 Repairing front brakes, 2FN brake caliper .....	71
1.6 Removing and installing brake pads .....	74
<b>2 Repairing rear disc brakes - front-wheel drive</b> .....	<b>79</b>
2.1 Removing and installing brake pads .....	82
2.2 Adjusting handbrake .....	84



<b>3</b>	<b>Repairing rear disc brakes - four-wheel drive</b>	<b>85</b>
3.1	Removing and installing brake pads	87
3.2	Adjusting handbrake	90
<b>4</b>	<b>Repairing rear drum brakes</b>	<b>91</b>
4.1	Removing and installing rear brakes	91
4.2	Releasing brake shoe adjustment	93
4.3	Repairing rear brakes	93
4.4	Removing and installing brake shoes	94
4.5	Adjusting handbrake	96
<b>5</b>	<b>Assembly overview - handbrake lever</b>	<b>97</b>
5.1	Removing and installing handbrake cable for disc brakes - front-wheel drive	97
5.2	Removing and installing handbrake cables for disc brakes - four-wheel drive	99
5.3	Removing and installing handbrake cable for drum brakes	101
<b>6</b>	<b>Assembly overview - brake pedal</b>	<b>104</b>
6.1	Separating brake pedal from brake servo	104
6.2	Removing and installing brake pedal	106
6.3	Removing, installing brake light switch F and brake pedal switch F47	107
<b>47 - Brakes - hydraulics</b>		<b>110</b>
<b>1</b>	<b>Repairing front brake caliper</b>	<b>110</b>
1.1	Repairing FS III brake caliper	110
1.2	Removing and installing front brake caliper piston	110
1.3	Repairing FN 3 brake caliper	112
1.4	Removing and installing front brake caliper piston	113
1.5	Repairing brake caliper 2FN	115
1.6	Removing and installing front brake caliper piston	116
<b>2</b>	<b>Repairing rear brake caliper</b>	<b>120</b>
2.1	Removing and installing piston for rear brake caliper	121
<b>3</b>	<b>Assembly overview - brake pressure regulator</b>	<b>123</b>
<b>4</b>	<b>Checking and adjusting brake pressure regulator</b>	<b>124</b>
4.1	Checking function	124
4.2	Checking and adjusting pressure	124
<b>5</b>	<b>Pressure leak test</b>	<b>126</b>
<b>6</b>	<b>Bleeding brake system</b>	<b>127</b>
6.1	Bleeding brake system with brake filling and bleeding unit VAS 5234 or V.A.G 1869	127
6.2	Bleeding brake system without brake filling and bleeding unit	129
<b>7</b>	<b>Assembly overview - brake servo/ brake master cylinder</b>	<b>131</b>
7.1	Removing and installing vacuum pump for brake servo (diesel vehicles)	132
<b>8</b>	<b>Assembly overview - brake servo /brake master cylinder for vehicles with ABS/EDL/TCS/ESP Mark 20 IE</b>	<b>134</b>
8.1	Removing and installing brake pressure sender 1 G201 and brake pressure sender 2 G214	135
<b>9</b>	<b>Assembly overview - brake servo /brake master cylinder for vehicles with ABS/EDL/TCS/ESP Mark 60</b>	<b>137</b>
9.1	Functional check of brake assist system in brake servo	139
9.2	Removing and installing brake vacuum pump V192	139
9.3	Checking brake vacuum pump V192	140
<b>10</b>	<b>Removing and installing brake master cylinder</b>	<b>141</b>
<b>11</b>	<b>Removing and installing brake servo</b>	<b>143</b>
<b>12</b>	<b>Repairing brake lines</b>	<b>145</b>
12.1	Assembly overview - flanging tool	147
12.2	Work procedures	147