



## Contents

<b>00 - Technical data</b>	<b>1</b>
<b>1 Technical data</b>	<b>1</b>
1.1 Brakes ▶ 09.99	1
1.2 Brakes 10.99 ▶	5
<b>2 Brake test</b>	<b>8</b>
2.1 General	8
2.2 Test for vehicles with front-wheel drive.	8
<b>45 - Anti-lock brake system</b>	<b>9</b>
<b>1 Anti-lock brake system (ABS) ITT Mark 04 GI</b>	<b>9</b>
1.1 General information on this ABS	9
1.2 Notes for repair work on the ABS	9
<b>2 Assembly overview - hydraulic unit, brake servo/brake master cylinder</b>	<b>11</b>
2.1 Connecting brake lines from tandem brake master cylinder to hydraulic unit	12
2.2 Removing and installing control unit and hydraulic unit	12
<b>3 Anti-lock brake system (ABS) and anti-lock brake system with electronic differential lock (ABS/EDL) ITT Mark 20 GI and ITT Mark 20 IE</b>	<b>16</b>
3.1 General information on this ABS	16
3.2 Distinguishing features of ABS ITT Mark 20 GI/ITT Mark 20 IE	17
3.3 Notes for repairs on ABS, ABS/EDL	17
<b>4 Assembly overview - hydraulic unit, brake servo/brake master cylinder</b>	<b>19</b>
4.1 Removing and installing control unit and hydraulic unit	19
<b>5 Removing and installing parts of ABS system on front and rear axles</b>	<b>23</b>
5.1 Removing and installing parts of ABS system on front axle, VW I brake caliper	23
5.2 Removing and installing parts of ABS system on front axle, VW II brake caliper	26
5.3 Removing and installing parts of ABS system on front axle, Girling/Lucas brake caliper	30
5.4 Removing and installing parts of ABS system on rear axle (vehicles with drum brakes)	34
5.5 Removing and installing parts of ABS system on rear axle (vehicles with disc brakes)	38
<b>6 Removing and installing parts of ESP system</b>	<b>43</b>
6.1 Removing and installing yaw rate sender G202	43
6.2 Removing and installing lateral acceleration sender G200	44
6.3 Removing and installing steering angle sender G85	45
<b>46 - Brakes - mechanism</b>	<b>46</b>
<b>1 Repairing front brakes</b>	<b>46</b>
1.1 Repairing front brakes, VW I and VW II brake caliper	46
1.2 Removing and installing brake pads, up to 01.96	49
1.3 Removing and installing brake pads, from 01.96	51
1.4 Repairing Girling/Lucas front brakes	53
1.5 Removing and installing brake pads, Girling/Lucas brake caliper	55
<b>2 Repairing rear brakes, drum brakes</b>	<b>58</b>
2.1 Removing and installing brake drum, up to 09.99	58
2.2 Removing and installing brake drum, as of 10.99	60
2.3 Releasing brake shoe adjustment	61
2.4 Repairing brake drum	61
2.5 Removing and installing brake shoes	63
2.6 Adjusting handbrake	64
<b>3 Repairing rear brakes (disc brakes)</b>	<b>66</b>
3.1 Removing and installing disc brake	66
3.2 Removing and installing brake pads	69
3.3 Adjusting handbrake	72
<b>4 Removing and installing handbrake cable (drum brakes)</b>	<b>73</b>



<b>5</b>	<b>Removing and installing handbrake cable (disc brakes)</b>	<b>75</b>
<b>6</b>	<b>Assembly overview - handbrake lever</b>	<b>77</b>
<b>7</b>	<b>Assembly overview - brake pedal</b>	<b>78</b>
7.1	Separating brake pedal from brake servo	78
7.2	Removing and installing brake pedal	79
7.3	Adjusting brake light switch	80
<b>47 - Brakes - hydraulics</b>		<b>82</b>
<b>1</b>	<b>Repairing front brake caliper, VW I and VW II brake caliper</b>	<b>82</b>
1.1	Removing and installing piston for front brake caliper	82
<b>2</b>	<b>Repairing Girling/Lucas front brake caliper</b>	<b>85</b>
2.1	Removing and installing piston for front brake caliper	85
<b>3</b>	<b>Repairing rear brake caliper</b>	<b>88</b>
3.1	Removing and installing piston for rear brake caliper	89
3.2	Pressure leak test	91
<b>4</b>	<b>Assembly overview - brake pressure regulator</b>	<b>92</b>
<b>5</b>	<b>Checking and adjusting brake pressure regulator</b>	<b>93</b>
5.1	Checking and adjusting pressure	93
5.2	Load dependent brake pressure regulator specifications	93
<b>6</b>	<b>Bleeding brake system</b>	<b>95</b>
6.1	Bleeding brake system using brake filling and bleeding unit VAS 5234 or V.A.G 1869	95
6.2	Bleeding brake system without brake filling and bleeding unit	96
6.3	Changing brake fluid	96
<b>7</b>	<b>Assembly overview - brake servo/ brake master cylinder</b>	<b>97</b>
7.1	Removing and installing vacuum pump for brake servo (diesel vehicles)	98
7.2	Checking non-return valve	99
<b>8</b>	<b>Assembly overview - brake master cylinder/brake servo for vehicles with ABS/EDL/TCS/ESP</b>	<b>100</b>
8.1	Removing and installing brake pressure sender	101
<b>9</b>	<b>Removing and installing brake master cylinder</b>	<b>103</b>
9.1	Removing	103
9.2	Installing	103
<b>10</b>	<b>Removing and installing brake servo</b>	<b>104</b>
10.1	Removing	104
10.2	Installing	105