



Contents

00 - Technical data	1
1 Safety information	1
1.1 Safety precautions when using testers and measuring instruments during a road test	1
2 Identification	2
2.1 Allocation of PR number - brakes	2
3 Technical data	4
3.1 Technical data for brakes	4
4 Brake test	6
4.1 General information	6
4.2 Checking vehicles with front-wheel drive	6
4.3 Checking parking brake	6
45 - Anti-lock brake system	8
1 General information	8
1.1 Repair instructions for repair work on ABS	8
2 Overview of fitting locations	11
2.1 Overview of fitting locations - ABS/ESP	11
3 Control unit and hydraulic unit	13
3.1 Assembly overview - control unit and hydraulic unit	13
3.2 Removing and installing ABS control unit J104 and ABS hydraulic unit N55	17
3.3 Connecting brake lines to hydraulic unit	32
3.4 Separating control unit from hydraulic unit	34
3.5 Fitting control unit to hydraulic unit	35
4 Sensors	37
4.1 Assembly overview - speed sensor on front axle	37
4.2 Assembly overview - speed sensor on rear axle	38
4.3 Removing and installing speed sensors on front axle G45 / G47	38
4.4 Removing and installing speed sensors on rear axle G44 / G46	39
4.5 Checking ABS sensor ring	40
4.6 Removing and installing ESP sensor unit G419	41
46 - Brakes - mechanism	42
1 Front brakes	42
1.1 Assembly overview - front brakes	42
1.2 Removing and installing brake pads/linings	45
1.3 Removing and installing brake caliper	50
2 Rear brakes	55
2.1 Assembly overview - rear brakes	55
2.2 Removing and installing brake pads/linings	57
2.3 Removing and installing brake caliper	61
3 Parking brake	66
3.1 Overview of fitting locations - parking brake	66
3.2 Removing and installing control unit for electromechanical parking brake J540	67
3.3 Removing and installing parking brake motor V282 / V283	67
4 Brake pedal	70
4.1 Assembly overview - brake pedal	70
4.2 Separating brake pedal from brake servo	73
4.3 Connecting brake pedal to brake servo	74
4.4 Removing and installing brake pedal	74
4.5 Removing and installing mounting bracket	75
47 - Brakes - hydraulics	80



1	Front brake caliper	80
1.1	Assembly overview - front brake caliper	80
1.2	Removing and installing brake caliper piston	82
2	Rear brake caliper	86
2.1	Assembly overview - rear brake caliper	86
2.2	Removing and installing protective cap	86
3	Brake servo and brake master cylinder	90
3.1	Assembly overview - brake servo/brake master cylinder	90
3.2	Removing and installing brake light switch	95
3.3	Removing and installing brake master cylinder	98
3.4	Removing and installing brake servo	108
4	Vacuum system	130
4.1	Assembly overview - vacuum pump	130
4.2	Checking non-return valve	130
4.3	Removing and installing vacuum sender G608	130
4.4	Checking vacuum system	131
5	Brake lines	135
5.1	Repairing brake lines	135
6	Hydraulic system	140
6.1	General notes on brake fluid	140
6.2	Bleeding hydraulic system following standard procedure	140
6.3	Subsequent bleeding of hydraulic system	142
6.4	Testing for leaks	142