

Contents

00 - Technical data	1
1 Safety and repair instructions	1
1.1 Safety information	1
1.2 Repair instructions	1
2 Brake test	2
2.1 General notes	2
2.2 Checking vehicles with front-wheel drive	2
2.3 Checking vehicles with all-wheel drive	2
2.4 Checking parking brake	3
3 Electrical components	5
3.1 Access to diagnoses	5
4 Technical data	7
4.1 Test and adjustment values	7
45 - Anti-lock brake system	8
1 Safety and repair instructions	8
1.1 Safety information	8
1.2 Repair instructions	8
2 Overview of fitting locations	9
2.1 Installation location overview: ABS/ESP	9
3 Control unit and hydraulic unit	12
3.1 Assembly overview – control unit and hydraulic unit	12
3.2 Removing and installing ABS control unit [J104]/ABS hydraulic unit [N55]	17
3.3 Separating control unit from and connecting to hydraulic unit	29
4 Sensors	33
4.1 Assembly overview – speed sensor on front axle	33
4.2 Assembly overview – speed sensor on rear axle, torsion beam axle	33
4.3 Assembly overview – speed sensor on rear axle, all-wheel drive	34
4.4 Removing and installing speed sensor on front axle [G45]/[G47]	35
4.5 Removing and installing speed sensor on rear axle [G44]/[G46]	36
4.6 Checking ABS sensor ring	37
46 - Brakes - mechanism	39
1 Safety and repair instructions	39
1.1 Safety information	39
1.2 Repair instructions	39
2 Front brake	40
2.1 Assembly overview – front brake	40
2.2 Removing and installing brake pads, pad retainer	42
2.3 Removing and installing brake pads, brake pad retaining spring	47
2.4 Removing and installing brake caliper	50
2.5 Removing and installing brake carrier	53
2.6 Removing and installing brake disc	54
2.7 Removing and installing brake splash plate	55
3 Rear brake	57
3.1 Assembly overview – rear brakes, torsion beam axle	57
3.2 Assembly overview – rear brake, multi-link suspension	59
3.3 Removing and installing brake pads	61
3.4 Removing and installing brake caliper	64
3.5 Removing and installing brake carrier	68
3.6 Removing and installing brake disc	69
3.7 Removing and installing brake shield plate, torsion beam axle	70



3.8	Removing and installing brake shield plate, multi-link suspension	71
4	Parking brake	73
4.1	Removing and installing parking brake motor [V282]/[V283]	73
5	Brake pedal	75
5.1	Assembly overview – brake pedal, right-hand drive vehicles	75
5.2	Assembly overview – brake pedal, left-hand drive vehicles	76
5.3	Removing and installing mounting bracket, left-hand drive vehicles	77
5.4	Removing and installing mounting bracket, right-hand drive vehicles	78
5.5	Separating brake pedal from and joining to brake servo	79
5.6	Removing and installing brake pedal, left-hand drive vehicles	81
5.7	Removing and installing brake pedal, right-hand drive vehicles	82
5.8	Removing and installing mounting of brake pedal on push rod	84
47 - Brakes - hydraulics		86
1	Safety and repair instructions	86
1.1	Safety information	86
1.2	Repair instructions	86
2	Front brake caliper	87
2.1	Assembly overview – front brake caliper	87
2.2	Removing and installing brake caliper piston	87
3	Rear brake caliper	93
3.1	Assembly overview – rear brake caliper	93
4	Brake servo and brake master cylinder	94
4.1	Assembly overview – brake servo/brake master cylinder	94
4.2	Removing and installing brake servo, right-hand drive vehicles with petrol engine	98
4.3	Removing and installing brake servo, right-hand drive vehicles with diesel engine	102
4.4	Removing and installing brake servo, left-hand drive vehicles	105
4.5	Removing and installing brake master cylinder	109
4.6	Removing and installing brake fluid level warning contact [F34]	119
4.7	Removing and installing brake light switch	120
5	Hydraulic system	124
5.1	Bleeding hydraulic system	124
5.2	Leak test	125
5.3	Brake fluid change	126
6	Vacuum system	127
6.1	Assembly overview – vacuum pump	127
6.2	Checking vacuum system	129
6.3	Checking non-return valve	133
6.4	Removing and installing vacuum sender	134
6.5	Removing and installing vacuum pump	135