



Contents

00 - Technical data	1
1 Safety information	1
1.1 General safety provisions	1
1.2 Safety measures when working on vehicles with a start/stop system	2
1.3 Notes on tow-starting/towing	2
1.4 Safety precautions when using testers and measuring instruments during a road test	2
2 Identification	4
2.1 Gearbox identification	4
3 Repair instructions	5
3.1 General information	5
3.2 Rules for cleanliness	6
3.3 General repair instructions	6
3.4 Gaskets and seals	7
3.5 Nuts and bolts	8
4 Technical data	9
4.1 Capacities	9
5 Electrical components	10
5.1 Overview of fitting locations - electrical components	10
30 - Clutch	11
1 Clutch	11
1.1 Assembly overview - dual clutch	11
1.2 Removing and installing clutch end cover	12
1.3 Removing dual clutch	17
1.4 Installing dual clutch	20
34 - Controls, housing	31
1 Mechatronic unit	31
1.1 Removing and installing mechatronic unit for dual clutch gearbox J743 (gearbox installed)	31
1.2 Removing and installing gearbox input speed sender G182 and oil temperature sender in multi-plate clutch G509 up to gearbox date 05/15	39
2 Bevel box	41
2.1 Distinguishing between different types of bevel boxes	41
2.2 Removing and installing bevel box	42
2.3 Detaching bevel box from gearbox - gearbox removed	71
3 Selector mechanism	76
3.1 Assembly overview - selector mechanism	76
3.2 Manual release from position P	79
3.3 Removing and installing selector lever handle	81
3.4 Moving push-button in the handle to installation position	88
3.5 Removing and installing selector mechanism	90
3.6 Removing and installing gear selector cable	99
3.7 Checking selector mechanism	104
3.8 Checking and adjusting selector lever cable	105
3.9 Renewing selector shaft seal	107
4 Removing and installing gearbox	110
4.1 Specified torques for gearbox	110
4.2 Removing gearbox	112
4.3 Installing gearbox	169
5 Assembly mountings	171
5.1 Assembly overview - assembly mountings	171
6 Transporting gearbox	175



7	Dismantling and assembling gearbox	176
7.1	Assembly overview - gearbox	176
8	Securing to engine and gearbox support	182
9	Gear oil circuit	183
9.1	Removing and installing gear oil cooler	183
9.2	Removing and installing gear oil filter	185
10	Gear oil	188
10.1	Checking gear oil level	188
10.2	Draining and filling gear oil	190
35 - Gears, shafts		196
1	Currently, no repairs can be made to gears and shafts	196
39 - Final drive - differential		197
1	Gear oil	197
1.1	Checking gear oil level	197
1.2	Draining and filling gear oil	199
2	Oil seals	206
2.1	Overview of fitting locations - seals	206
2.2	Renewing left seal	206
2.3	Renewing right seal	210
3	Components of bevel box	214
3.1	Assembly overview - components of bevel box	214
3.2	Renewing bevel box seals	218
3.3	Renewing needle bearing (polygon bearing) for stub shaft	239