



Contents

00 - Technical data	1
1 — Change history —	1
2 Identification	2
2.1 Gearbox identification	2
3 Technical data	3
3.1 Assignment (gearbox / engine)	3
3.2 Supply capacity (gearbox oil)	3
3.3 Gear ratio calculation “i”	3
4 Transmission assembly scheme	4
4.1 Transmission assembly scheme	4
5 Repair instructions	6
5.1 General repair instructions	6
30 - Clutch	10
1 Clutch control	10
1.1 Clutch control - overview	10
1.2 Clutch drive pedal - assembly overview	12
1.3 Hydraulic clutch system - assembly overview	13
1.4 Clutch release mechanism - assembly overview	15
1.5 Support shell - remove and install	16
1.6 Clutch pedal switch F36 - remove and install	16
1.7 Spring - remove and install	17
1.8 Clutch pedal - remove and install	18
1.9 Support with clutch pedal - remove and install	18
1.10 Clutch transmitter cylinder - remove and install	23
1.11 Clutch slave cylinder - remove and install	24
1.12 Clutch system line - remove and install	25
1.13 Clutch system - bleed	26
1.14 Clutch release mechanism - repair	28
2 Clutch	30
2.1 Clutch - assembly overview	30
2.2 Clutch - remove and install	31
34 - Controls, housing	35
1 Gearshift mechanism	35
1.1 Gearshift mechanism - installation position	35
1.2 Gear selection mechanism - assembly overview	37
1.3 Handle and boot on the gear lever - assembly overview	38
1.4 Gear selection lever and control - assembly overview	39
1.5 Handle and boot on the gear lever - remove and install	40
1.6 Gearshift control and lever - remove and install	41
1.7 Gearshift operation command - repair	44
1.8 Selector lever - replace seal	48
1.9 Gear selection mechanism - adjust	49
1.10 Gearshift mechanism - check operation	52
2 Gearbox - remove and install	53
2.1 Transmission - removal	53
2.2 Gearbox - installation	61
2.3 Transmission - tightening torques	66
3 Auxiliary frame	67
3.1 Assembly mountings - assembly overview	67
4 Gearbox - transport	69



4.1	Gearbox - transport	69
5	Gearbox oil	70
5.1	Gearbox oil - check and refill	70
5.2	Gearbox oil - drain and fill	71
6	Transmission - fasten to support	72
6.1	Transmission - fasten to the Support 3221A	72
7	Gearbox - disassemble and assemble	74
7.1	Gearbox - schematic overview	74
7.2	gearbox - assembly overview	75
7.3	Gearbox housing cover and 5th gear	75
7.4	Gearbox housing Cover and 5th gear - remove and install (gearbox installed)	77
7.5	Clutch housing	78
7.6	Input shaft, output shaft, differential, selection mechanism and selector forks	79
7.7	Input shaft, output shaft, differential, selection mechanism and selector forks - disassemble and assemble	81
8	Gearbox and clutch housings	88
8.1	Transmission housing and transmission housing - assembly overview	88
8.2	Transmission and clutch housings - repair	90
9	Selector mechanism - adjust	92
9.1	Gear selection mechanism - disassemble and assemble	92
10	Selector forks	94
10.1	Selector forks - assembly overview	94
10.2	Selector forks - repair	95
35 - Gears, shafts		99
1	Input shaft	99
1.1	Input shaft - general overview of assembly	99
1.2	Input shaft - disassemble and assemble	102
1.3	Input shaft - replace seal	110
2	Output shaft	112
2.1	Output shaft - general overview of assembly	112
2.2	Output shaft - disassemble and assemble	115
39 - Final drive - differential		121
1	Seals	121
1.1	Seals - assembly overview	121
1.2	Seal (left-hand side) - replace	122
1.3	Seal (right-hand side) - replace	123
2	Differential	126
2.1	Differential - general overview of assembly	126
2.2	Differential - disassemble and assemble	128
2.3	Differential - adjust	134