

Contents

00 - Technical data	1
1 Identification of gearbox	1
1.1 Identification of gearbox	1
2 Code letters, gearbox allocation, ratios, equipment	2
2.1 Code letters, gearbox allocation, ratios, equipment	2
3 Capacities	4
3.1 Capacities	4
4 General repair instructions	5
4.1 General repair instructions	5
32 - Torque converter	8
1 Torque converter	8
1.1 Torque converter	8
1.2 Identification of torque converter	8
1.3 Checking torque converter	8
1.4 Draining torque converter	9
1.5 Replacing torque converter oil seal	9
1.6 Installing torque converter	10
37 - Controls, Housing	12
1 Servicing shift mechanism	12
1.1 Servicing shift mechanism	12
1.2 Checking shift mechanism	12
1.3 Dismantling and assembling shift mechanism	13
1.4 Removing/installing and adjusting locking cable	20
2 Checking gearbox	23
2.1 Checking gearbox	23
2.2 Performing self-diagnosis	23
2.3 Checking shift points	23
2.4 Fault finding table for "4-speed automatic gearbox"	23
3 Removing and installing gearbox	24
3.1 Removing and installing gearbox	24
4 Checking and topping up ATF level	30
4.1 Checking and topping up ATF level	30
4.2 Checking ATF level	31
4.3 Topping up ATF	32
5 Gearbox with selector elements up to 11.92	33
5.1 Gearbox with selector elements up to 11.92	33
5.2 Position of selector elements on gearboxes up to 11.92	34
6 Gearbox with selector elements as of 11.92	35
6.1 Gearbox with selector elements as of 11.92	35
6.2 Position of selector elements on gearboxes as of 11.92	36
7 Dismantling and assembling gearbox	37
7.1 Dismantling and assembling gearbox	37
7.2 Rules for cleanliness when working on the automatic gearbox	37
7.3 Removing and installing ATF pipes	37
7.4 Cleaning ATF pipes and ATF cooler	42
8 Dismantling and assembling planetary gearbox	44
8.1 Dismantling and assembling planetary gearbox	44
8.2 Dismantling planetary gearbox - overview	45
8.3 Dismantling planetary gearbox	49
8.4 Assembling planetary gearbox -overview-	54



8.5	I - Installing planet carrier	56
8.6	II - Installing components from reverse gear brake -B1- up to circlip for -B2- supporting tube	59
8.7	III - Installing components from small sun gear up to reverse gear clutch -K2-	63
8.8	IV - Installing supporting tube for -B2- up to ATF pump	68
8.9	Assembling planetary gearbox	72
8.10	Planetary gearbox adjustments - overview	82
8.11	I - Adjusting planet carrier	83
8.12	II - Adjusting reverse gear brake -B1- - overview	90
8.13	III - Adjusting clutch play between -K1- and -K2-	96
8.14	IV - Adjusting 2nd and 4th gear brake -B2-	102
38	- Gears, Hydraulic controls	109
1	Dismantling and assembling ATF pump	109
1.1	Dismantling and assembling ATF pump	109
2	Dismantling and assembling free wheel with -B1- piston	113
2.1	Dismantling and assembling free wheel with -B1- piston	113
3	Dismantling and assembling 1st - 3rd gear clutch -K1- with turbine shaft for gearboxes up to 11.92	116
3.1	Dismantling and assembling 1st - 3rd gear clutch -K1- with turbine shaft for gearboxes up to 11.92	116
4	Dismantling and assembling 1st - 3rd gear clutch -K1- with turbine shaft for gearboxes as of 11.92	126
4.1	Dismantling and assembling 1st - 3rd gear clutch -K1- with turbine shaft for gearboxes as of 11.92	126
5	Dismantling and assembling reverse gear clutch -K2-	133
5.1	Dismantling and assembling reverse gear clutch -K2-	133
6	Dismantling and assembling 3rd and 4th gear clutch -K3- with pump shaft for gearboxes up to 11.92	137
6.1	Dismantling and assembling 3rd and 4th gear clutch -K3- with pump shaft for gearboxes up to 11.92	137
7	Dismantling and assembling 4th gear clutch -K3- with pump shaft for gearboxes as of 11.92	143
7.1	Dismantling and assembling 4th gear clutch -K3- with pump shaft for gearboxes as of 11.92	143
8	Removing and installing valve body	148
8.1	Removing and installing valve body	148
9	Dismantling and assembling parking lock	154
9.1	Dismantling and assembling parking lock	154
39	- Final drive, Differential	163
1	Checking oil in final drive	163
1.1	Checking oil in final drive	163
2	Replacing oil seals for left flange shaft or right drive flange (gearbox installed)	163
2.1	Replacing oil seals for left flange shaft or right drive flange (gearbox installed)	163
2.2	Replacing oil seal for flange shaft (left)	163
2.3	Replacing seal for right-hand drive flange.	166
3	Dismantling and assembling final drive	169
3.1	Dismantling and assembling final drive	169
3.2	Removing and installing input gear	169
3.3	Removing and installing drive pinion	177
3.4	Removing and installing differential	187
3.5	Dismantling and assembling differential	193
3.6	Removing and installing differential bevel gears	201
4	Adjusting final drive	203
4.1	Adjusting final drive	203

4.2	Overview of adjustments . . . . .	.203
4.3	Adjustments to be completed after replacing individual components . . . . .	.205
4.4	Adjusting input gear . . . . .	.206
4.5	Adjusting final drive sets; identification . . . . .	.210
5	Adjusting drive pinion and crown wheel . . . . .	.211
5.1	Adjusting drive pinion and crown wheel . . . . .	.211
5.2	General notes . . . . .	.211
5.3	Recommended sequence for adjusting gear set . . . . .	.212
5.4	Adjusting drive pinion . . . . .	.213
5.5	Adjusting crown wheel . . . . .	.222