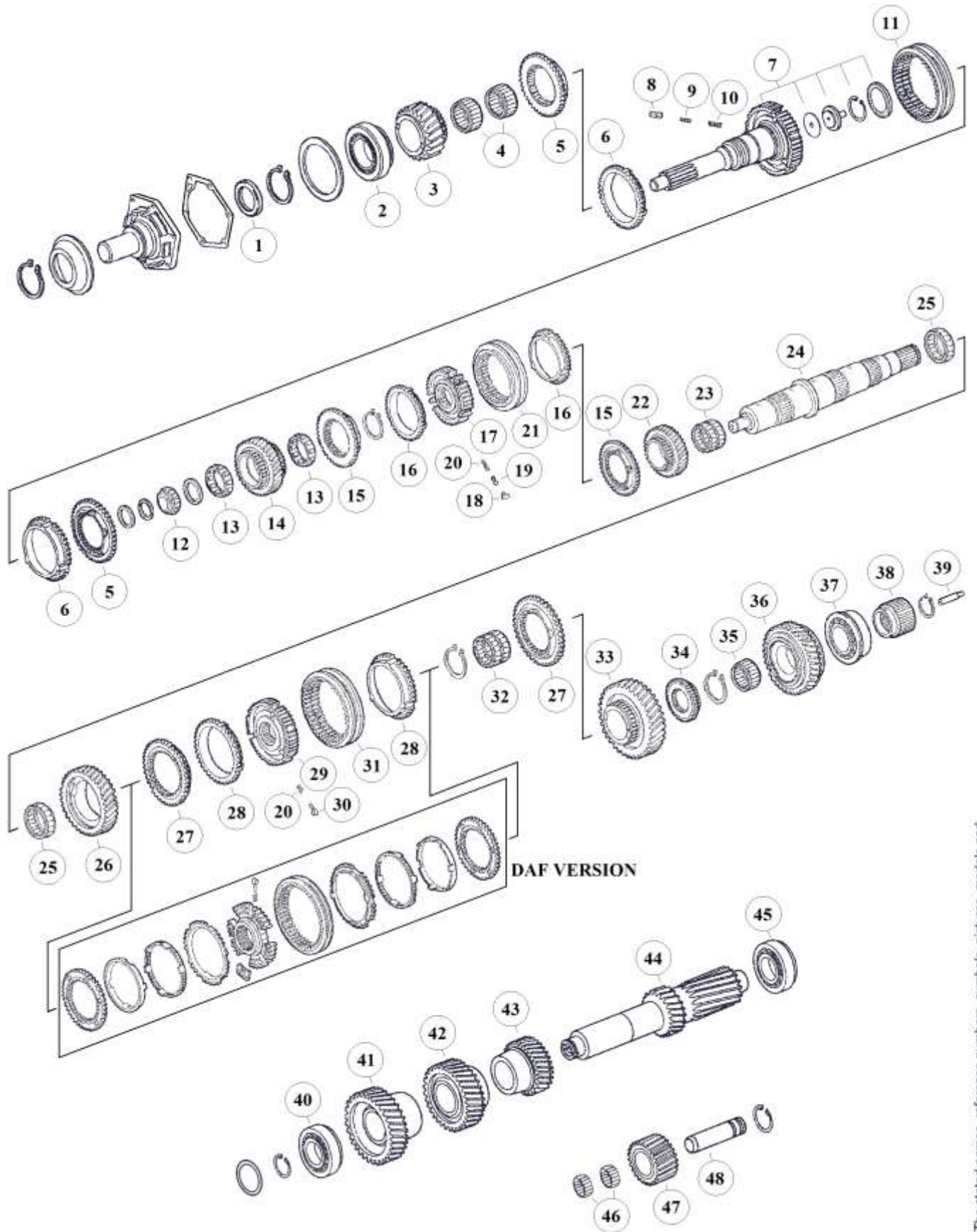


Suitable to:
ZF 16S109 EcoMid

MAN



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RATIOS:

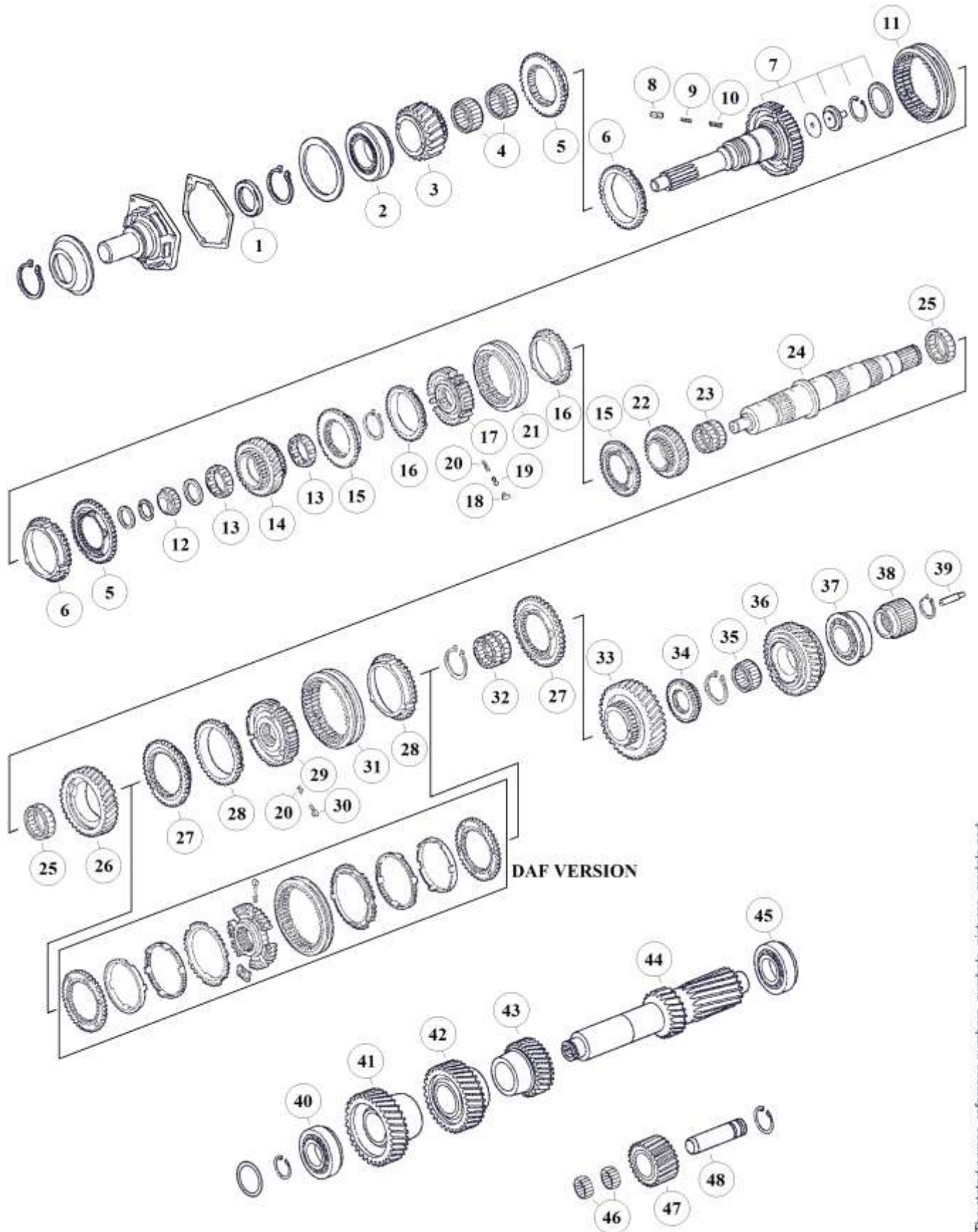
I	13,30 - 1,00	IV	13,42 - 1,00
II	13,31 - 1,00	V	13,53 - 0,82
III	13,41 - 1,00		

Fig.	MAET-No.	MAN-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
1		81 96502 0934	0750 111 149	Oil Seal D.48x65x10	x1			
2		81 93420 0203	0750 117 079	Bearing D.66,6x117,4x30,1	x1			
3	00.119.012		1304 302 169	Constant Gear 26 T.	x1	I&II&III&IV		
3	00.119.212	81 32301 0726	1304 302 150	Constant Gear 30 T.	x1	V		
4		81 93404 0045	0735 320 816	Needle Cage D.75x83x23	x2			
5	00.119.006	81 32425 0096	1304 302 188	Coupling Body	x2			
6	00.119.054	81 32420 0153	1304 304 496	Synchronizer Ring	x2		old	
6	00.119.154	81 32420 0234	1304 304 680	Synchronizer Ring	x2		new	
7	00.119.001	81 32205 0236	1304 202 201	Input Shaft	x1			
7	00.119.101	81 32205 0235	1304 202 202	Input Shaft	x1			
7	00.119.201		1304 202 203	Input Shaft	x1			
8	00.168.075	81 32510 0005	1240 304 278	Pressure Block	x3			
9	00.168.074	81 97601 0758	0732 040 386	Pressure Spring De.3x34	x3			
10	00.168.076	81 97601 0757	0732 040 385	Pressure Spring De.6x34	x3			
11	00.168.046	81 32402 0062	1240 304 272	Sliding Sleeve	x1			
12		81 93501 0092	0735 371 406	Roller Cage D.32x33	x1			
13		81 93404 0048	0750 115 299	Roller Cage D.59,5x81,5x22	x2			
14	00.119.014		1304 304 516	Gear 4th sp. 27 T.	x1	I&II&III&IV		
14	00.119.114	81 32301 0734	1304 304 518	Gear 4th sp. 27 T.	x1	V		
15	00.119.106	81 32425 0098	1304 304 012	Coupling Body	x2			
16	00.109.054	81 32420 0137	1304 304 014	Synchronizer Ring	x2		old	
16	00.109.254	81 32420 0235	1304 304 683	Synchronizer Ring	x2		new	
17	00.119.032	81 32420 0157	1304 304 515	Synchronizer Hub	x1			
18	00.109.080	81 32510 0007	1238 304 394	Pressure Block	x3			
19	00.109.075	81 32523 0081	1249 304 222	Pressure Pin	x3			
20	00.175.205	81 97601 0895	0732 040 409	Pressure Spring D.6,5x23,5	x3			
21	00.119.128	81 32402 0198	1304 304 688	Sliding Sleeve	x1			
22	00.119.031		1304 304 475	Gear 3rd sp. 29 T.	x1	I&II&III&IV		
22	00.119.131	81 32301 0732	1304 304 417	Gear 3rd sp. 32 T.	x1	V		
23		81 93404 0045	0735 320 816	Needle Cage D.75x83x23	x1			
24	00.119.015	81 32202 0075	1304 304 630	Main Shaft	x1			
25		81 93404 0045	0735 320 816	Roller Cage D.75x83x23	x2			
26	00.119.022		1304 304 497	Gear 2nd sp. 32 T.	x1	I&II&III&IV		
26	00.119.122	81 32301 0730	1304 304 422	Gear 2nd sp.	x1	V		
27	00.109.108	81 32425 0088	1304 304 408	Coupling Body	x2			
28	00.109.154	81 32420 0156	1304 304 542	Synchronizer Ring	x2		old	
28	00.109.354	82 32420 0013	1304 304 681	Synchronizer Ring	x2		new	
29	00.119.132	81 32420 0188	1304 304 653	Synchronizer Hub	x1			
30	00.151.080	81 32510 0013	1297 304 436	Pressure Block	x3			
31	00.109.128	81 32402 0147	1304 304 597	Sliding Sleeve	x1			
32		81 93402 0111	0750 115 224	Needle Cage D.70x78x50	x1			
33	00.119.034		1304 304 358	Gear 1st sp. 37 T.	x1	I&IV		
33	00.119.234		1304 304 549	Gear 1st sp. 37 T.	x1	II&III		
33	00.119.134	81 32301 0731	1304 304 376	Gear 1st sp. 38 T.	x1	V		
34	00.119.038	81 32425 0097	1304 304 007	Coupling Body	x1			
35		81 93404 0044	0750 115 225	Needle Cage D.60x68x39	x1			
36	00.119.035		1304 304 669	Reverse Gear 32 T.	x1	I&IV		
36	00.119.235		1304 304 671	Reverse Gear 35 T.	x1	II&III		
36	00.119.135	81 32301 0990	1304 304 670	Reverse Gear 35 T.	x1	V		

Special for MAN

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RATIOS:

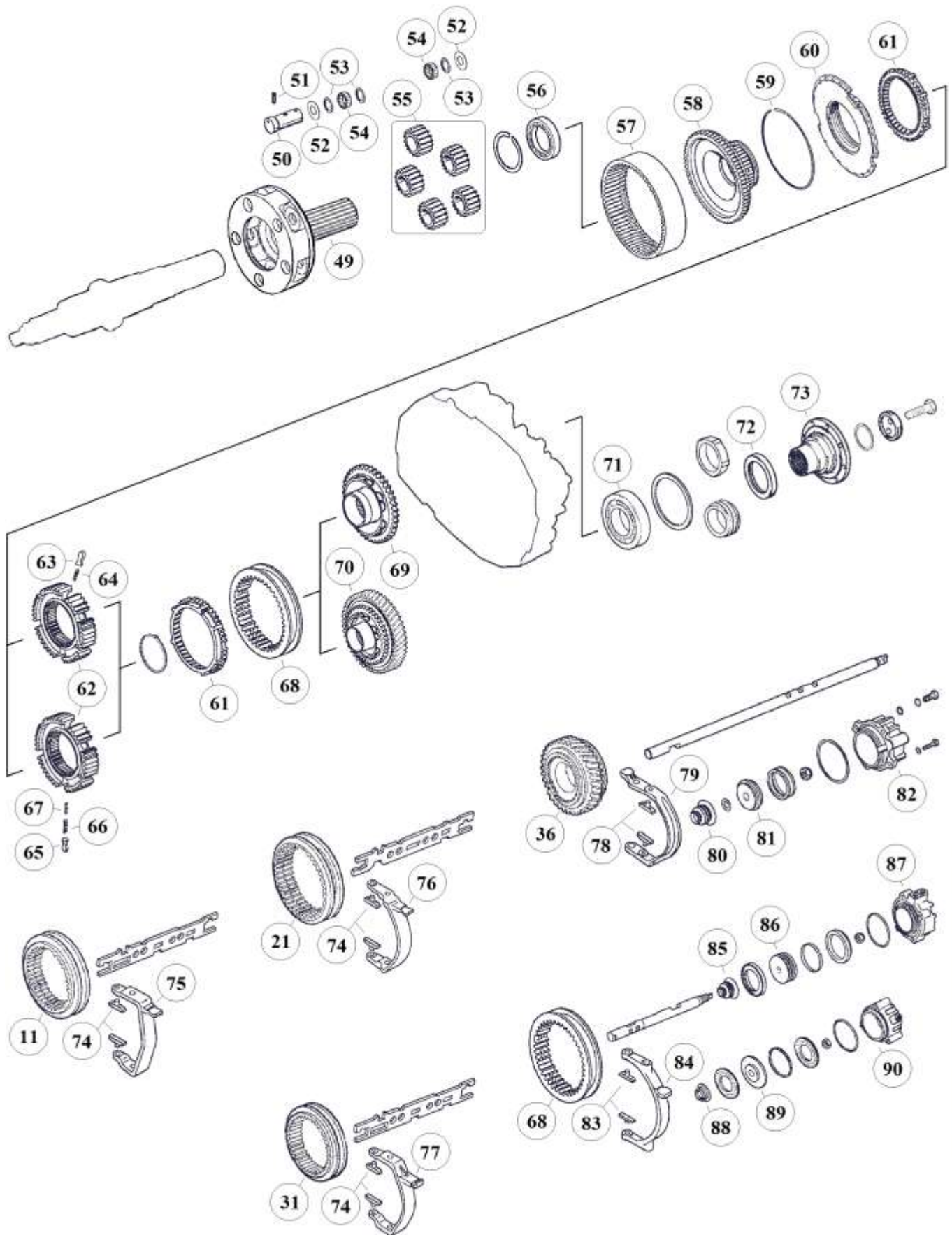
I	13,30 – 1,00	IV	13,42 – 1,00
II	13,31 – 1,00	V	13,53 – 0,82
III	13,41 – 1,00		

Fig.	MAET-No.	MAN-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
37		81 93420 0313	0735 371 605	Bearing D.50,8x104,7x30,1	x1			■
38	00.119.044		1304 304 261	Sun Gear 29 T.	x1	I&II		■
38	00.119.144		1304 304 608	Sun Gear 30 T.	x1	III&IV		■
38	00.119.244	81 32301 0736	1304 304 199	Sun Gear 21 T.	x1	V		■
39	00.109.243	81 32562 0146	1312 304 150	Oil Tube.	x1			■
40		81 93420 0335	0735 371 749	Bearing D.40x80x32.	x1			■
41			1304 303 273	Constant Gear 33 T.	x1	I&II&III&IV		■
41	00.119.512	81 32301 0729	1304 303 283	Constant Gear 31 T.	x1	V		■
42	00.119.024		1304 303 212	Gear 4th sp. 29 T..	x1	I&II&III&IV		■
42	00.119.124	81 32301 0728	1304 303 175	Gear 4th sp. 34 T.	x1	V		■
43	00.119.025		1304 303 214	Gear 3rd sp. 22 T.	x1	I&II&III&IV		■
43	00.119.125	81 32301 0727	1304 303 192	Gear 3rd sp. 28 T.	x1	V		■
44	00.119.027		1304 303 276	Counter Shaft	x1	I&IV		■
44	00.119.227		1304 303 277	Counter Shaft	x1	II&III		■
44	00.119.127	81 32206 0074	1304 303 279	Counter Shaft	x1	V		■
45		81 93420 6029	0750 117 083	Bearing D.50,8x95,2x27,7	x1			■
46		81 93404 0047	0735 358 192	Needle Cage D.40x60x26	x2			■
47	00.119.036		1304 305 039	Reverse Idler Gear 22 T.	x1	I&IV		■
47	00.119.236		1304 305 040	Reverse Idler Gear 21 T.	x1	II&III		■
47	00.119.136	81 32315 0057	1304 305 041	Reverse Idler Gear 22 T.	x1	V		■
48	00.175.039	81 91001 0549	1304 305 030	Reverse Idler Pin	x1			■

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RATIOS:

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II	13,31 - 1,00	V	13,53 - 0,82
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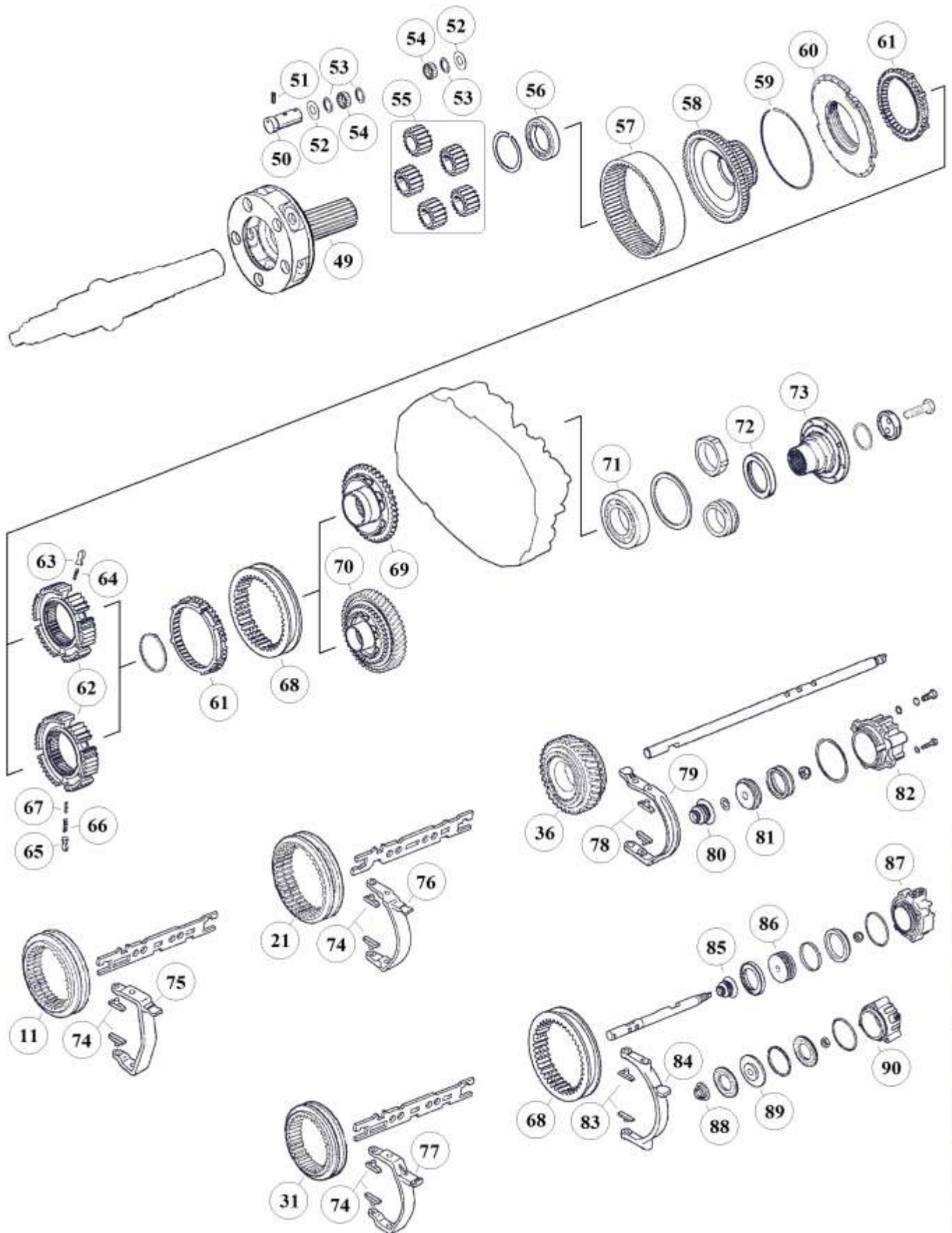
Fig.	MAET-No.	MAN-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
49	00.110.612		1304 232 088	Planet Carrier	x1	I&II&III&IV		■
49	00.119.712	81 37501 0023	1304 232 086	Planet Carrier	x1	V		■
50	00.109.202	81 32523 0153	1304 332 111	Planet Pin HO	x5			■
51	00.119.220		0631 329 037	Lock Pin 4x26	x5			■
52	00.159.203	81 90713 0038	0501 304 692	Thrust Washer 1,50	x10			■
53	00.159.204	81 90713 0037	0730 103 102	Washer 1,50	x15			■
54		81 93403 0020	0735 470 115	Needle D.5x15,30	x200			■
55	00.119.506		1304 232 026	Planet Gear Set	x1	I&II		■
55	00.119.306		1304 232 054	Planet Gear Set	x1	III&IV		■
55	00.119.406	81 37505 6007	1304 232 022	Planet Gear Set	x1	V		■
56		81 93410 0078	0735 340 080	Bearing D.70x90x10	x1		(a)	■
56		81 93410 0083	0750 116 165	Bearing D.80x110x16	x1		(b)	■
57	00.109.207	81 32301 0863	1304 332 178	Carrier Crown 86 T.	x1	I&II		■
57	00.119.207		1304 332 134	Carrier Crown 90 T.	x1	III&IV		■
57	00.119.307	81 32301 0735	1304 332 043	Carrier Crown 74 T.	x1	V		■
58	00.109.204	81 37511 0004	1304 332 060	Intermediate Carrier 86 T.	x1	I&II	(a)	■
58	00.119.204	81 32211 0005	1304 332 215	Intermediate Carrier 86 T.	x1	I&II	(b)	■
58	00.119.304		1304 332 135	Intermediate Carrier 90 T.	x1	III&IV	(a)	■
58	00.119.404		1304 332 216	Intermediate Carrier 90 T.	x1	III&IV	(b)	■
58	00.119.504	81 37511 0005	1304 332 044	Intermediate Carrier 74 T.	x1	V	(a)	■
58	00.119.604	81 37511 0011	1304 332 217	Intermediate Carrier 74 T.	x1	V	(b)	■
59	00.119.298	81 90820 0485	0730 505 140	Lock Ring	x1	I&II&III&IV		■
59	00.119.398	81 90820 0446	0730 505 092	Lock Ring	x1	V		■
60	00.109.208	81 32425 0090	1304 233 005	Coupling Flange	x1		(a)	■
60	00.109.308	84 32425 0001	1304 233 006	Coupling Flange	x1		(b)	■
61	00.109.210	81 32420 0140	1304 333 005	Synchronizer Ring	x2		(a) old	■
61	00.109.310		1304 333 021	Synchronizer Ring	x2		(a) new	■
61	00.112.210	81 32420 0096	1296 333 022	Synchronizer Ring	x2		(b) old	■
61	00.151.308	81 32420 0236	1296 333 045	Synchronizer Ring	x2		(b) new	■
62	00.109.211	81 32420 0139	1304 332 066	Synchronizer Hub	x1		(a)	■
62	00.151.211	81 32420 0152	1313 333 001	Synchronizer Hub	x1		(b)	■
63	00.168.075	81 32510 0005	1240 304 278	Pressure Block	x6		(a)	■
64	00.168.076	81 97601 0757	0732 040 385	Pressure Spring De.6x34	x6		(a)	■
65	00.168.075	81 32510 0005	1240 304 278	Pressure Block	x9		(b)	■
66	00.168.076	81 97601 0757	0732 040 385	Pressure Spring De.6x34	x9		(b)	■
67	00.168.074	81 97601 0758	0732 040 386	Pressure Spring De.3x34	x9		(b)	■
68	00.109.212	81 32402 0137	1304 332 089	Sliding Sleeve	x1		(a)	■
68	00.119.328	84 32402 0001	1304 333 011	Sliding Sleeve	x1		(b)	■
69	00.109.213	81 32425 0091	1304 332 075	Coupling Body	x1		(a)	■
69	00.119.213	81 32425 0143	1304 233 013	Coupling Body	x1		(b)	■
70	00.119.053		1304 313 133	Retarder Gear	x1		(a)	■
70	00.109.313	84 32425 0002	1304 232 085	Retarder Gear	x1		(b)	■
71		81 93410 0077	0750 116 048	Bearing D.78x130x25	x1		(a)	■
71			0750 116 197	Bearing D.80x140x26	x1		(b)	■
72		81 96502 0935	0734 319 439	Oil Seal D.95x115x10	x1			■
73	00.119.065	81 39115 0297	1304 338 059	Output Flange D.150-4 H.	x1		(a)	■
73	00.119.265	81 39115 0296	1304 338 050	Output Flange D.180-4 H.	x1		(a)	■
73	00.119.465		1304 338 052	Output Flange D.180-10 H.	x1		(a)	■
73	00.119.565		1304 338 056	Output Flange D.204-4 H.	x1		(a)	■

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NOTES:

(a)	DO NOT MIX the two different Versions
(b)	DO NOT MIX the two different Versions



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RATIOS:

I	13,30 - 1,00	IV	13,42 - 1,00
II	13,31 - 1,00	V	13,53 - 0,82
III	13,41 - 1,00		

Fig.	MAET-No.	MAN-No.	ZF-No.	DESCRIPTION	Q-Ty.	Ratio	Note	16S109 (1304)
73	00.119.765	83 39115 0500	1304 338 097	Output Flange D.180-4 H.	x1		(b)	■
73			1304 338 109	Output Flange D.180-4 H.	x1		(b)	■
74	00.109.180	81 32526 0027	1290 306 066	Sliding Pads	x6		(Bronze)	■
75	00.119.188	81 32515 0085	1304 306 010	Fork	x1			■
75	00.119.288		1304 306 044	Fork	x1			■
76	00.109.388	81 32515 0083	1304 306 009	Fork	x1			■
76	00.119.488	81 32515 0079	1304 306 043	Fork	x1			■
77	00.119.588	81 32515 0086	1304 306 011	Fork	x1			■
78	00.119.080	81 32526 0024	1268 312 057	Sliding Pads	x2			■
79	00.119.088	81 32516 0120	1304 312 003	Fork	x1			■
80		81 32540 0031	0750 112 047	Oil Seal	x1			■
81		81 32639 0014	1296 312 053	Piston	x1			■
82		81 32103 0114	1304 212 005	Cylinder	x1			■
83	00.168.059	81 32526 0019	1272 334 003	Sliding Pads	x2		(Bronze)	■
84	00.119.688	81 32516 0118	1304 334 039	Fork	x1		(a)	■
84	00.119.788	84 32516 0001	1304 334 063	Fork	x1		(b)	■
85		81 32540 0031	0750 112 047	Oil Seal	x1		(a)	■
86		81 32639 0053	1304 334 072	Piston	x1		(a)	■
87		81 32103 0090	1304 334 061	Cylinder	x1		(a)	■
88		81 32540 0031	0750 112 047	Oil Seal	x1		(b)	■
89		81 32639 0064	1315 334 041	Piston	x1		(b)	■
90		81 32638 0039	1304 334 079	Cylinder	x1		(b)	■

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HIGH END GEARS