

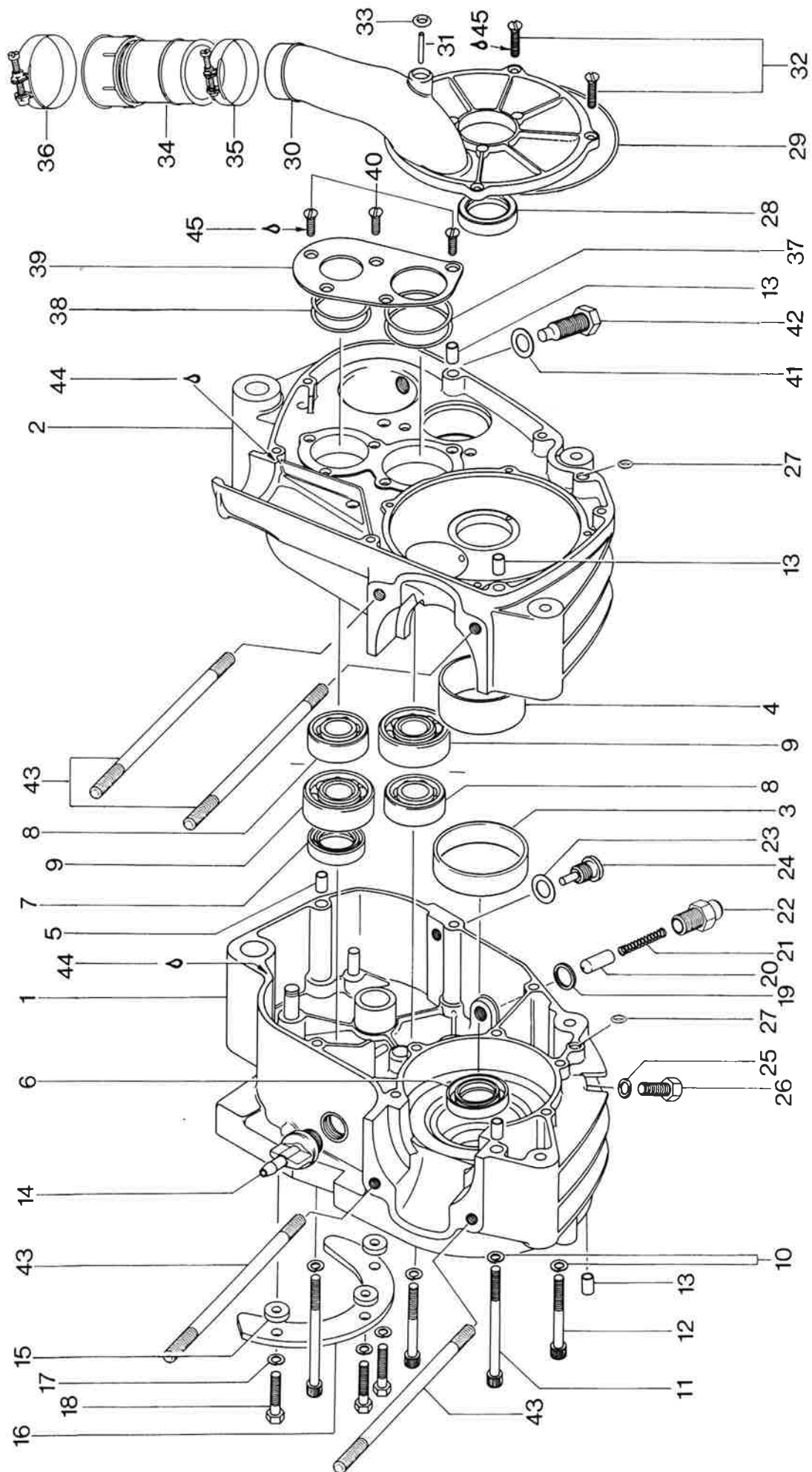
PARTS LIST No. 138

Motor Cycle - Engine

Types 244 END and 244 END REBUILD
our production 1976, your 1977 models

BOMBARDIER - ROTAX GMBH
A-4623 Gunskirchen/Austria

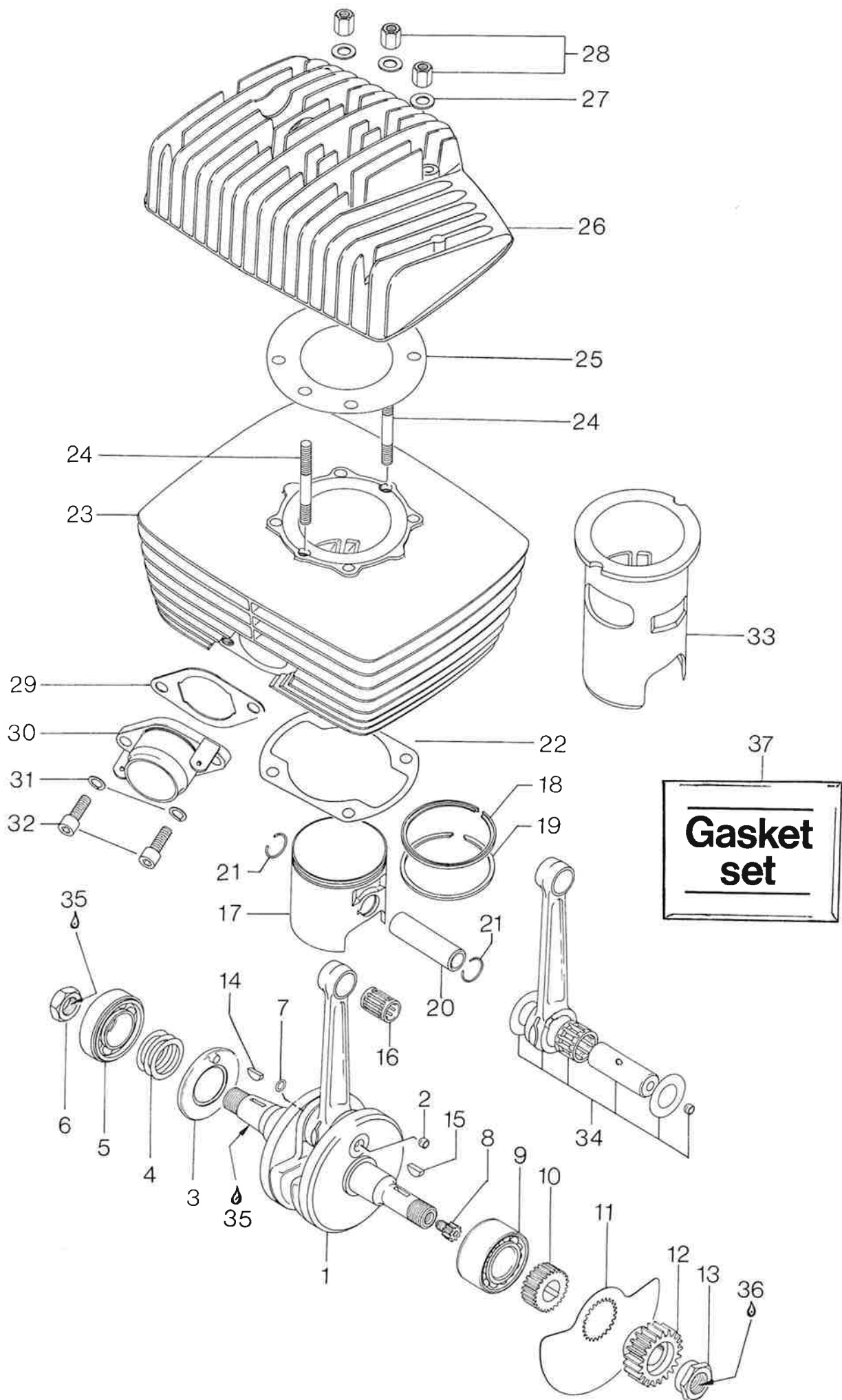
Phone: (07246)271 Telex: 25546a Cables: BOMBROTAX GUNSKIRCHEN



Crankcase, Disk Valve Cover

Ill.No.	Part No.	D e s c r i p t i o n	Quantity	
			244 END	244 END REBUILD
1 - 5	291 689	crankcase assy.	1	-
1 - 5	291 682	crankcase assy.	-	1
3	960 767	ring, crankcase, magneto side	1	-
3	960 767	ring, crankcase, magneto side (for crankcase execution with ring on magneto side)	-	1
4	260 400	ring, crankcase, clutch side	1	1
5	949 900	dowel, locating	2	2
6	230 425	seal, magneto side	1	-
6	230 390	seal, magneto side	-	1
7	230 421	seal, transmission main shaft	1	1
8	232 630	ball bearing 6203	2	2
9	232 640	ball bearing 6204	2	2
10	945 751	lock washer 6	10	10
11	241 870	screw, allen head M6 x 70 . .	5	5
12	241 820	screw, allen head M6 x 45 . .	5	5
13	949 900	dowel, locating	5	5
14	241 920	oil filler cap M18 x 1,5 . .	1	1
15	247 240	spacer, chain guard	3	3
16	297 330	chain guard for sprocket 13 t.	1	1
16	297 331	chain guard for sprocket 14 t.	1	1
16	297 332	chain guard for sprocket 15 t.	1	1
17	945 751	lock washer 6	3	3
18	241 185	screw, hex. head M6 x 16 . .	3	3
19	230 500	gasket ring, index plug . . .	1	1
20	258 552	plunger, index	1	1
21	239 712	spring, index plunger	1	1
22	241 787	plug, transmission, index . .	1	1
23	650 040	gasket ring	1	1
24	241 781	plug, magnetic drain	1	1
25	950 141	gasket ring	1	1
26	940 580	screw, hex. head M8 x 16, crank- case drain	1	1
27	230 530	O-ring	2	2
28	230 425	seal, clutch side	1	1
29	230 310	O-ring, disk valve cover . .	1	1
30,31	212 037	disk valve cover assy. . . .	1	1

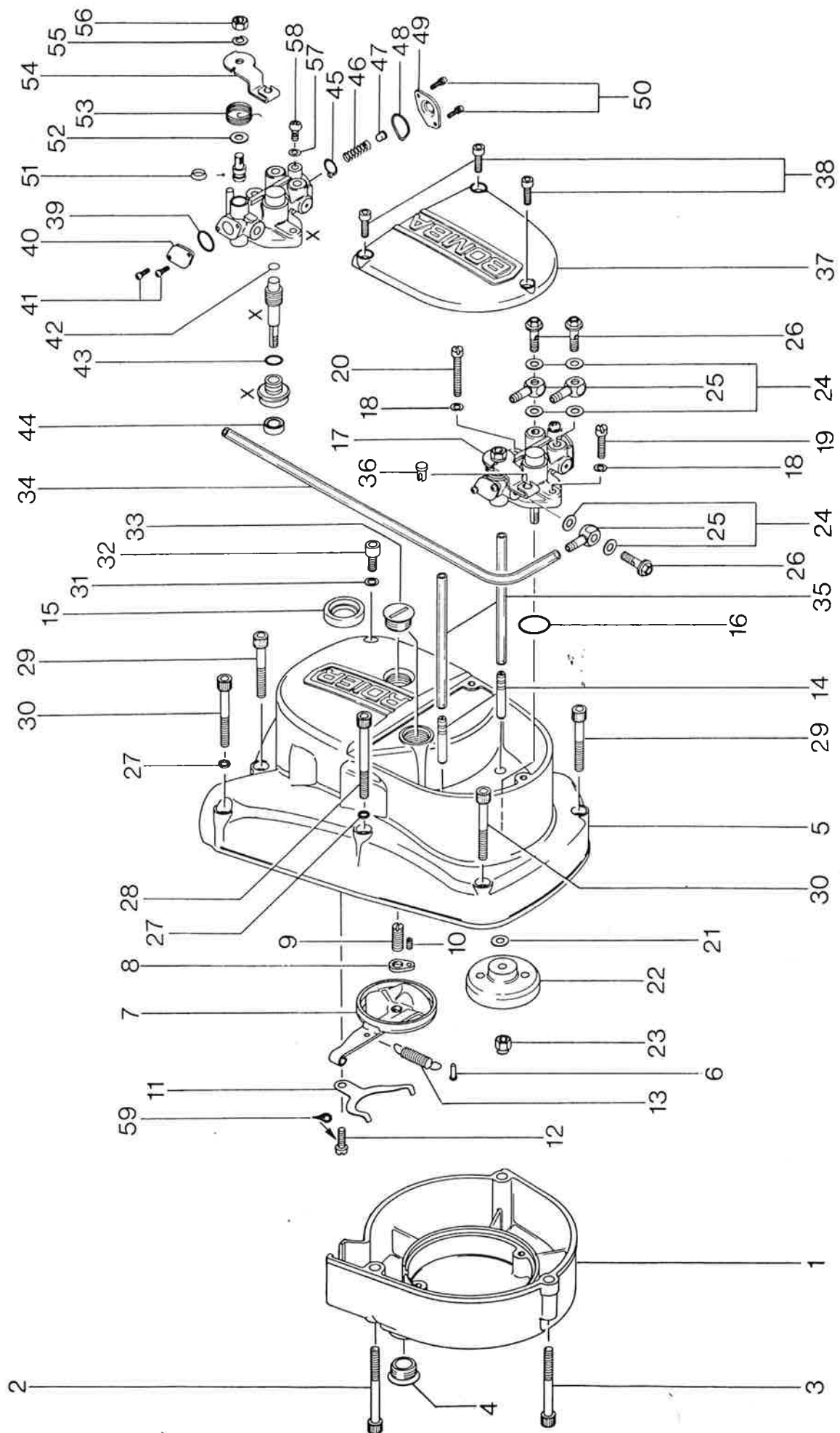
Ill.No.	Part No.	Description	Quantity	
			244 END	244 END REBUILD
31	224 040	diffuser tube	1	1
32	940 510	screw, countersunk slot head M5 x 16	4	4
33	230 260	O-ring, oil injection inlet port	1	1
34	267 741	adapter, carburetor	1	1
35	251 845	hose clamp, carburetor adapter	1	1
36	251 820	hose clamp, carburetor . .	1	1
37	227 610	shim 0,5 mm, transmission clutch shaft bearing . . .	as required	
	227 611	shim 0,3 mm, transmission clutch shaft bearing . . .	as required	
	227 612	shim 0,1 mm, transmission clutch shaft bearing . . .	as required	
38	227 520	shim 0,5 mm, transmission main shaft bearing	as required	
	227 521	shim 0,3 mm, transmission main shaft bearing	as required	
	227 522	shim 0,1 mm, transmission main shaft bearing	as required	
39	227 550	retaining plate,transmission bearing	1	1
40	940 315	screw, countersunk slot head M5 x 12	5	5
41	650 040	gasket ring	1	1
42	241 775	screw, kick starter stop .	1	1
43	840 620	stud M8, cylinder	4	4
44	899 682	LOCTITE 572 (white)	as required	
45	899 783	LOCTITE 59 (violet)	as required	



Crankshaft, Piston, Cylinder, Cylinder Head

Ill.No.	Part No.	Description	Quantity	
			244 END	244 END REBUILD
1,2	291 491	crankshaft assy.	1	-
1,2	291 690	crankshaft assy.	-	1
2	227 510	filler cap	1	1
3	224 027	plate, oil guide	1	1
4	944 582	shim 0,3 mm, crankshaft, magneto side	as	required
	944 583	shim 0,1 mm, crankshaft, magneto side	as	required
	944 586	shim 0,2 mm, crankshaft, magneto side	as	required
5	232 780	ball bearing 6206, crankshaft, magneto side	1	1
6	942 220	hex. nut M18 x 1,5, crankshaft, magneto side	1	-
6	242 570	hex. nut M16 x 1,5, crankshaft, magneto side	-	1
7	230 530	O-ring	1	1
8	234 922	gear 9 t., oil pump pinion . .	1	1
9	232 750	ball bearing 3205, double row, crankshaft, clutch side . . .	1	1
10	247 290	spacer, disk valve	1	1
11	224 100	disk valve	1	1
12	291 598	drive gear with clutch drum assy. (replace only drive gear with clutch drum assy., see also page 12, no. 4)	1	1
13	242 610	nut M18 x 1,5, crankshaft, clutch side	1	1
14	246 011	key, Woodruff, crankshaft, magneto side	1	1
15	246 570	key, Woodruff, crankshaft, clutch side	1	1
16	932 904	needle bearing, piston pin . .	1	1
17,18,19	291 505	piston assy., w. rings 74,0 Ø, std.	1	1
	291 506	piston assy., w. rings 74,25 Ø, 1st oversize	1	1
	291 507	piston assy. w. rings 74,5 Ø, 2nd oversize	1	1
	291 508	piston assy. w. rings 74,75 Ø, 3rd oversize	1	1

Ill.No.	Part No.	Description	Quantity	
			244 END	244 END REBUILD
18	215 145	L-trapez ring 74,0 Ø, std.	1	-
	215 145	L-trapez ring 74,0 Ø, std. (for piston execution with L-trapez ring only)	-	1
	215 220	SEMI-trapez ring 74,0 Ø, std. (for piston execution with SEMI-trapez ring only) .	-	1
	215 146	L-trapez ring 74,25 Ø, 1st oversize	1	1
	215 147	L-trapez ring 74,5 Ø, 2nd oversize	1	1
	215 148	L-trapez ring 74,75 Ø, 3rd oversize	1	1
19	215 155	rectangular ring 74,0 Ø, std.	1	1
	215 156	rectangular ring 74,25 Ø, 1st oversize	1	1
	215 157	rectangular ring 74,5 Ø, 2nd oversize	1	1
	215 158	rectangular ring 74,75 Ø, 3rd oversize	1	1
20	916 185	piston pin	1	1
21	945 735	circlip, piston pin	2	2
22	230 552	gasket, cylinder base	1	1
23	213 709	cylinder w. sleeve assy.	1	-
23	213 805	cylinder w. sleeve assy.	-	1
24	840 610	stud M8 x 49, cylinder head .	2	2
25	230 560	shim, cylinder head	as	required
26	213 712	cylinder head	1	1
27	250 311	washer 8,4, cylinder head nut	6	6
28	842 130	hex. nut M8, cylinder head .	6	6
29	830 270	gasket, exhaust socket	1	1
30	273 695	exhaust socket assy.	1	1
31	945 752	lock washer 8	2	2
32	240 080	cyl. screw M8 x 25, exhaust socket	2	2
33	213 694	cylinder sleeve	1	-
33	213 790	cylinder sleeve	-	1
34	291 499	crankshaft repair kit	1	1
35	899 783	LOCTITE 59 (violet)	as	required
36	899 780	LOCTITE 270 (green)	as	required
37	291 654	gasket set	1	-
37	291 655	gasket set	-	1



Magneto Cover, Clutch Cover, Oil Pump

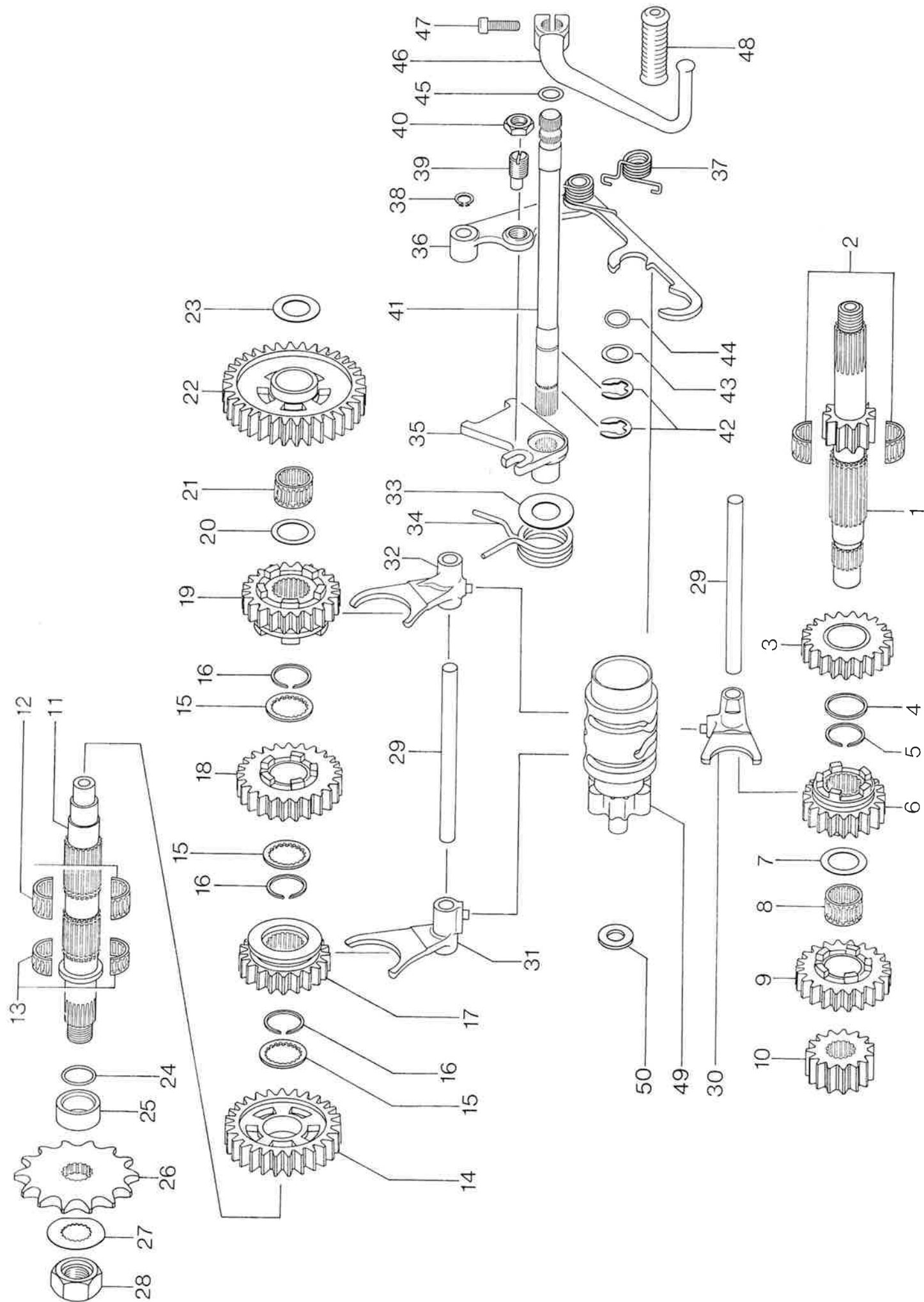
Ill.No.	Part No.	Description	Qty.
1	212 150	magneto cover	1
2	241 761	cyl. screw M6 x 50	2
3	241 821	cyl. screw M6 x 45	1
4	241 800	plug, adjustment	1
5,6,14	212 102	clutch cover assy.	1
6	949 030	drive pin 3 x 8	1
7	259 619	cam assy., clutch release	1
8	259 630	plate, clutch adj. locking	1
9	241 791	screw M8 x 15, clutch adjustment	1
10	241 795	screw M4 x 6, clutch adjustment	1
11	239 660	spring, clutch cam retaining	1
12	240 560	screw, slot head M5 x 12	1
13	239 630	spring, clutch cam return	1
14	256 040	valve assy., oil pump check	2
15	230 355	seal, kick start shaft	1
16	230 370	O-ring, oil pump mounting flange	1
17	291 433	oil pump assy.	1
18	945 750	lock washer 5	2
19	240 760	screw, slot head M5 x 16	1
20	240 975	screw, slot head M5 x 28	1
21	927 945	washer 6,2	1
22	234 932	gear, oil pump, 34 t.	1
23	842 040	hex. nut M6, oil pump gear	1
24	227 500	gasket, oil banjo	6
25	256 020	banjo	3
26	241 830	bolt, banjo	3
27	830 890	gasket, clutch cover	2
28	241 761	screw, allen head M6 x 50	1
29	241 811	screw, allen head M6 x 35	4
30	241 816	screw, allen head M6 x 40	3
31	830 890	gasket, oil level plug	1
32	840 370	plug, oil level	1
33	241 800	plug, adjustment	2
34	256 032	oil line 560 mm	1
35	256 031	oil line 90 mm	2
36	297 340	nipple	1

Ill.No.	Part No.	D e s c r i p t i o n	Qty.
37	212 065	oil pump cover	1
38	241 841	screw, allen head M5 x 12	3
39	230 451	O-ring, oil pump	1
40	256 060	plate, cam casing, oil pump	1
41	241 970	screw w. locking ring, oil pump	2
42	227 640	washer, thrust, oil pump	1
43	230 461	O-ring, oil pump	1
44	230 480	oil seal, oil pump	1
45	227 650	washer, wave, oil pump	1
46	239 720	spring, oil pump	1
47	256 080	retainer, oil pump	1
48	230 470	O-ring, oil pump	1
49	256 070	cap, sleeve, oil pump	1
50	241 970	screw w. locking ring, oil pump	2
51	230 490	X-ring, oil pump	1
52	227 660	collar, cam shaft, oil pump	1
53	239 670	spring, return, oil pump	1
54	256 010	lever, control, oil pump	1
55	945 751	lock washer 6	1
56	242 621	hex. nut M6, oil pump	1
57	250 250	washer, oil pump	1
58	241 980	screw, air vent, oil pump	1
59	899 783	LOCTITE 59 (violet) as requ.	

Parts marked with "X" are not available as spare parts!

Magneto Generator 12V 55W

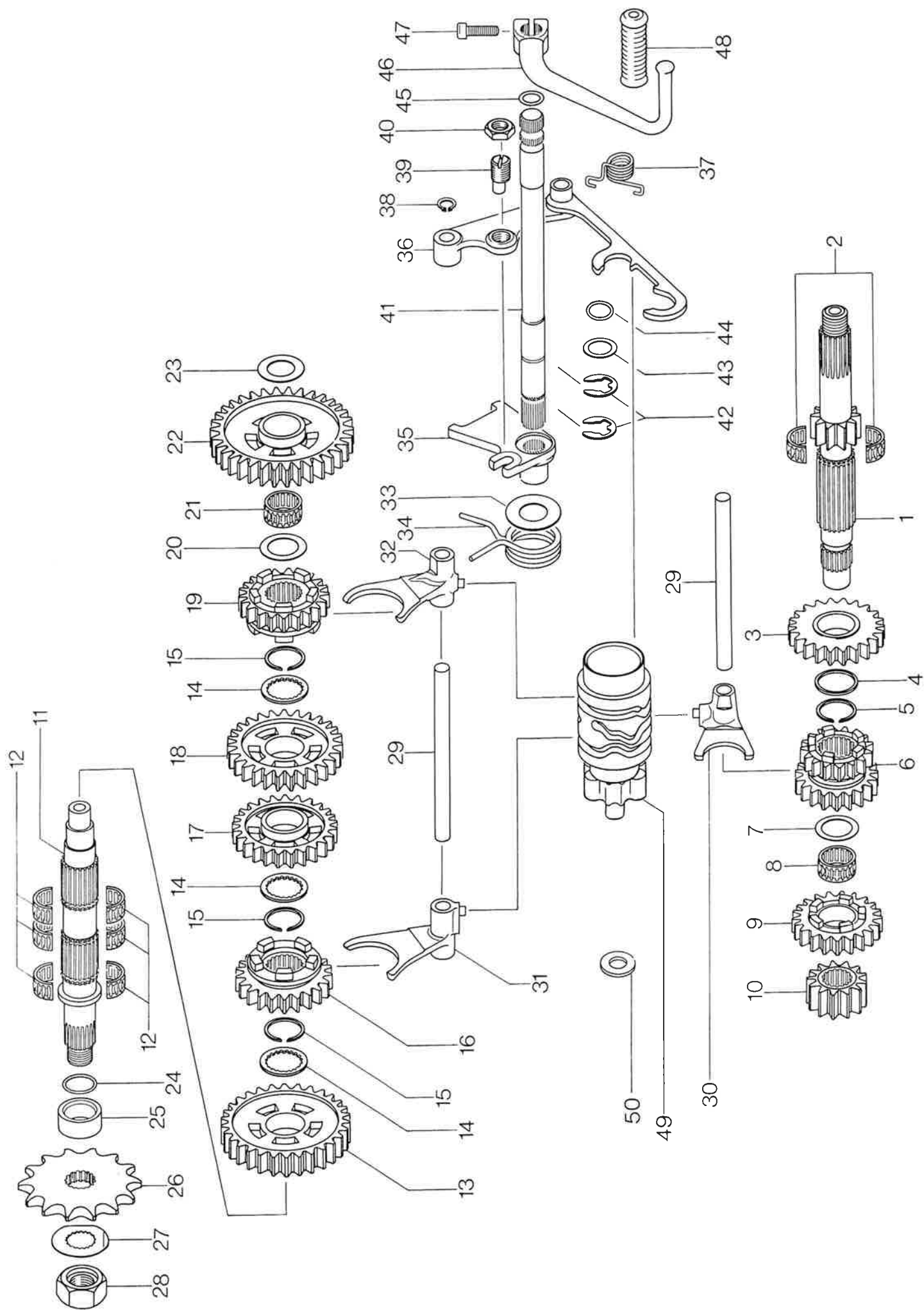
Ill.No.	Part No.	Description	Quantity	
			244 END	244 END REBUILD
1,2,4-15	291 832	magneto generator assy.	1	-
1,3-15	291 773	magneto generator assy.	-	1
1,4-11	291 778	stator plate assy.	1	1
2	291 565	flywheel	1	-
3	291 405	flywheel	-	1
4	260 433	protection hose 400 mm	1	1
5	260 345	cable grommet	1	1
6	260 462	protection hose 185 mm	1	1
7	960 791	protection cap	1	1
8	864 011	Faston connector	4	4
9	865 453	connector housing	1	1
10	964 062	contact pin	2	2
11	964 056	cable shoe M6	1	1
12-15	264 477	electronic box	1	1
13	960 550	protection cap	1	1
14	864 075	ignition cable 440 mm	1	1
15	865 200	spark plug protector	1	1
16		spark plug	1	1
17	224 030	holder, cables	1	1
18	927 570	washer 5,3	2	2
19	945 750	lock washer 5	2	2
20	840 510	screw M5 x 16, allen head	2	2
21	264 565	stator plate alone	1	1
22	264 519	charging coil with cable	1	1
23	247 260	distance sleeve 10,5 mm	2	2
24	264 505	brake light coil with cables	1	1
25	841 025	cyl. screw M4 x 30	2	2
26	264 495	lighting coil with cables	1	1
27	841 030	cyl. screw M4 x 22	2	2
28	965 700	cable shoe M4	1	1
29	945 758	lock washer 4	1	1
30	941 271	cyl. screw M4 x 6	1	1
31	264 530	cable terminal	7	7
32	260 411	protection hose 25 mm	7	7



Transmission
for Engine Type 244 END only

Ill.No.	Part No.	D e s c r i p t i o n	Qty.
1	237 440	clutch shaft, 11 t.	1
2	232 795	needle bearing assy., clutch shaft .	1
3	235 080	gear 4th, clutch shaft, 21 t.	1
4	227 475	thrust washer, clutch shaft	1
5	245 340	snapping, clutch shaft	1
6	235 060	gear 3rd, clutch shaft, 18 t.	1
7	227 440	thrust washer, clutch shaft	1
8	232 790	needle bearing, clutch shaft	1
9	235 100	gear 5th, clutch shaft, 23 t.	1
10	235 040	gear 2nd, clutch shaft, 15 t.	1
11	237 450	main shaft	1
12	232 800	needle bearing, main shaft	1
13	232 740	needle bearing, main shaft	1
14	235 050	gear 2nd, main shaft, 28 t.	1
15	227 465	thrust washer, main shaft	3
16	245 340	snapping, main shaft	3
17	235 110	gear 5th, main shaft, 21 t.	1
18	235 070	gear 3rd, main shaft, 25 t.	1
19	235 090	gear 4th, main shaft, 23 t.	1
20	944 468	thrust washer, main shaft	1
21	232 790	needle bearing, main shaft	1
22	235 030	gear 1st, main shaft, 32 t.	1
23	227 430	thrust washer, main shaft	1
24	230 400	O-ring, main shaft	1
25	247 225	spacer, sprocket	1
26	236 952	sprocket, 15 t.	1
26	236 951	sprocket, 14 t.	1
26	236 950	sprocket, 13 t.	1
27	245 320	washer, main shaft locking	1
28	242 600	hex. nut M16 x 1,5, main shaft	1
29	258 540	pin, shift fork guide	2
30	258 725	fork, shifting 4-5	1
31	258 715	fork, shifting 2	1
32	258 705	fork, shifting 1-3	1
33	427 070	thrust washer, transmission actuating lever	1

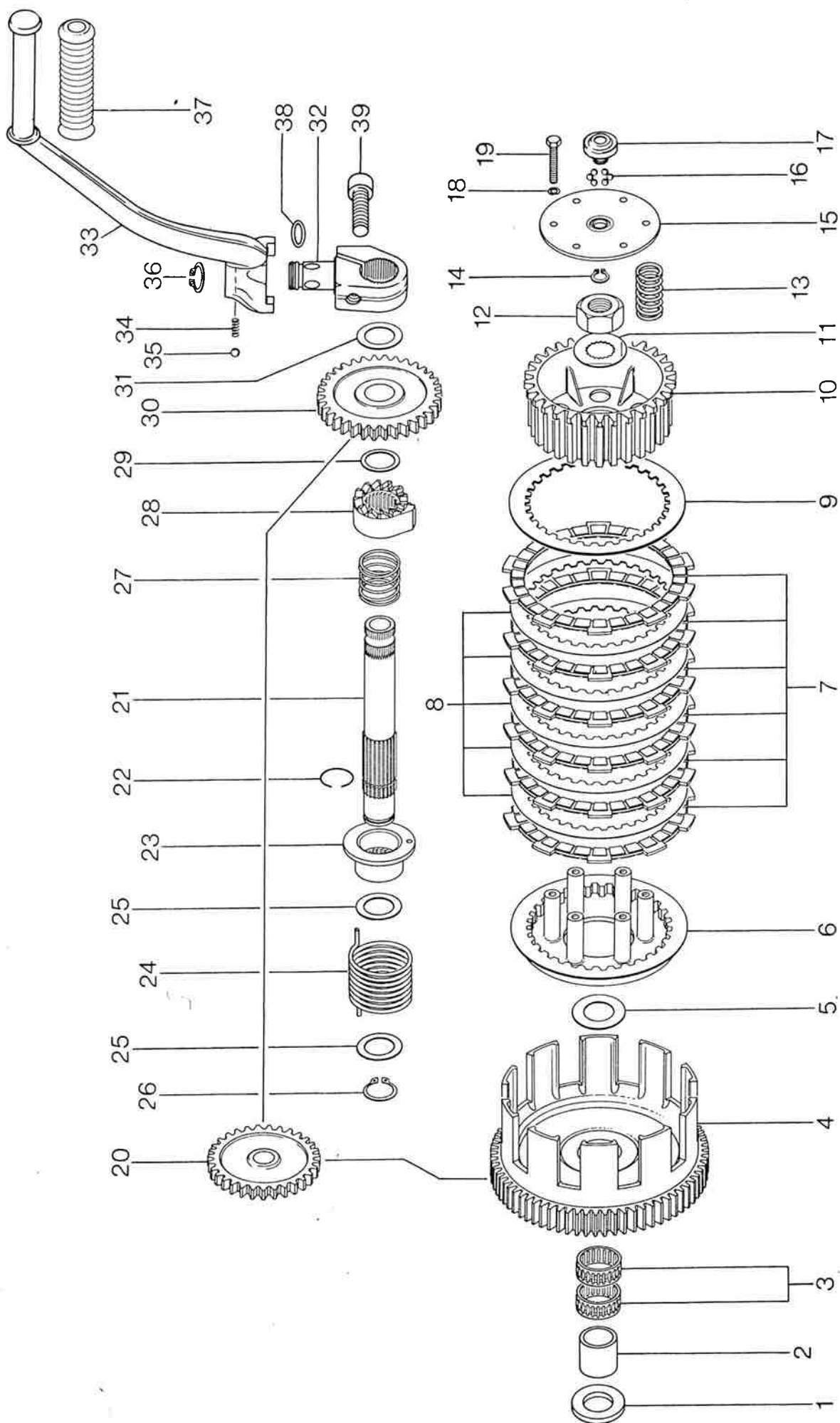
Ill.No.	Part No.	D e s c r i p t i o n	Qty.
34	239 640	spring, transmission actuating lever	1
35	258 575	lever, transmission actuating . . .	1
36	258 645	pawl assy.	1
37	239 650	spring, pawl	1
38	245 330	snapping 10 x 1	1
39	241 805	screw, pawl positioning	1
40	242 270	hex. nut M12 x 1, pawl positioning locking	1
41	237 436	shift shaft	1
42	945 790	retaining ring, shift shaft	2
43	944 851	thrust washer, shift shaft	1
44	230 451	O-ring, shift shaft	1
45	430 110	O-ring, shift shaft	1
46	248 781	shift lever	1
47	241 930	screw, allen head M6 x 20	1
48	260 200	rubber, shift lever	1
49	258 665	shift drum assy.	1
50	827 265	washer, shift drum	1



Transmission
for Engine Type 244 END-REBUILD only

Ill.No.	Part No.	D e s c r i p t i o n	Qty.
1	237 405	clutch shaft, 10 t.	1
2	232 665	needle bearing assy., clutch shaft .	1
3	234 885	gear 6th, clutch shaft, 22 t.	1
4	227 470	thrust washer, clutch shaft	1
5	245 340	snapping, clutch shaft	1
6	235 260	gear 3rd/4th, clutch shaft, 16/19 t.	1
7	227 440	thrust washer, clutch shaft	1
8	232 660	needle bearing 20, clutch shaft . . .	1
9	234 867	gear 5th, clutch shaft, 21 t.	1
10	234 825	gear 2nd, main shaft, 13 t.	1
11	237 415	main shaft	1
12	232 740	needle bearing 21, main shaft	3
13	234 815	gear 2nd, main shaft, 30 t.	1
14	227 460	thrust washer, main shaft	3
15	245 340	snapping, main shaft	3
16	234 877	gear 5th, main shaft, 23 t.	1
17	234 856	gear 4th, main shaft, 25 t.	1
18	234 835	gear 3rd, main shaft, 27 t.	1
19	234 897	gear 6th, main shaft, 21 t.	1
20	944 468	thrust washer, main shaft	1
21	232 660	needle bearing 20, main shaft	1
22	234 805	gear 1st, main shaft, 34 t.	1
23	227 430	thrust washer, main shaft	1
24	230 400	O-ring, main shaft	1
25	247 225	spacer, sprocket	1
26	236 952	sprocket, 15 t.	1
26	236 951	sprocket, 14 t.	1
26	236 950	sprocket, 13 t.	1
27	245 320	washer, main shaft locking	1
28	242 600	hex. nut M16 x 1,5, main shaft . . .	1
29	258 540	pin, shift fork guide	2
30	258 695	fork, shifting 5-6	1
31	258 685	fork, shifting 2-4	1
32	258 675	fork, shifting 1-3	1
33	427 070	thrust washer, transmission actuating lever	1

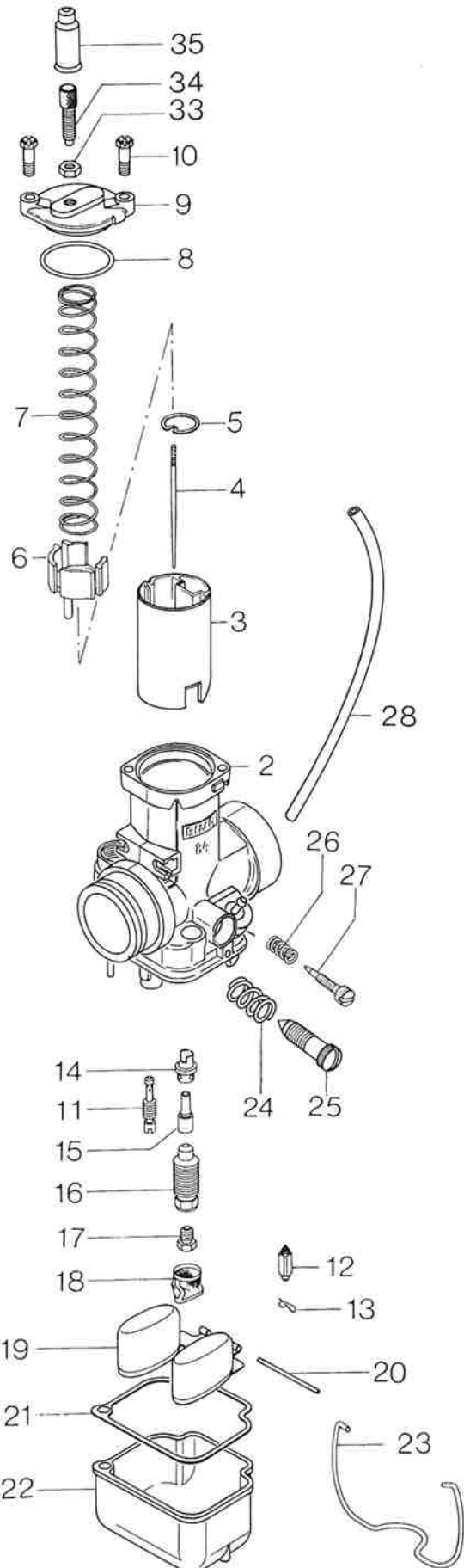
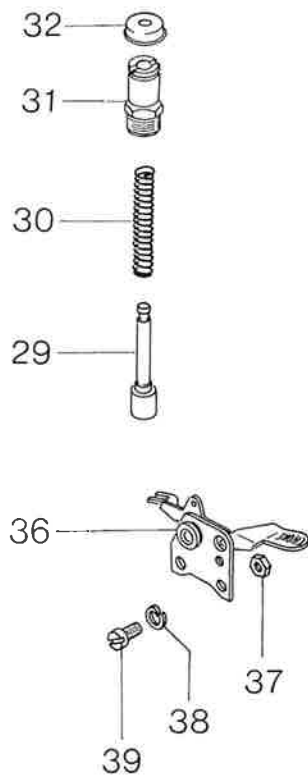
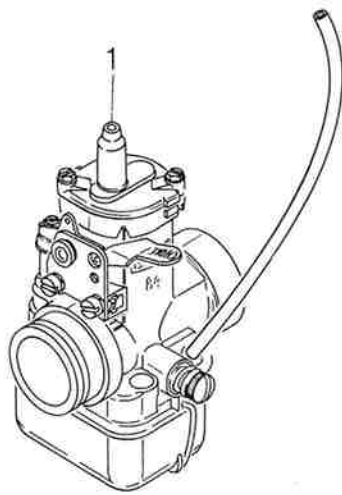
Ill.No.	Part No.	D e s c r i p t i o n	Qty.
34	239 640	spring, transmission actuating lever	1
35	258 575	lever, transmission actuating . . .	1
36	258 645	pawl assy.	1
37	239 650	spring, pawl	1
38	245 330	snpring 10 x 1	1
39	241 805	screw, pawl positioning	1
40	242 270	hex. nut M12 x 1, pawl positioning locking	1
41	237 436	shift shaft	1
42	945 790	retaining ring, shift shaft	2
43	944 851	thrust washer, shift shaft	1
44	230 451	O-ring, shift shaft	1
45	430 110	O-ring, shift shaft	1
46	248 781	shift lever	1
47	241 930	screw, allen head M6 x 20	1
48	260 200	rubber, shift lever	1
49	258 655	shift drum assy.	1
50	827 265	washer, shift drum	1



Clutch, Kick Start

Ill.No.	Part No.	Description	Qty.
1	227 600	thrust washer, inner, clutch drum . .	1
2	232 700	inner race, clutch drum	1
3	232 650	needle bearing, clutch drum	2
4	291 598	drive gear with clutch drum assy. (replace only drive gear with clutch drum assy., see also page 3 no. 12)	1
5	227 590	thrust washer, outer, clutch drum . .	1
6	259 570	plate, clutch, inner pressure	1
7	259 560	plate, clutch, friction	6
8	259 557	plate, clutch driven	5
9	259 555	plate, clutch, outer pressure	1
10	259 540	clutch hub	1
11	245 320	washer, transmission shaft locking .	1
12	242 600	hex. nut M16 x 1,5, transmission shaft	1
13	239 740	spring, clutch (change springs only setwise)	6
14-17	259 596	plate, clutch spring retaining with hub assy.	1
14	245 330	snapping 10 x 1	1
15	259 590	plate, clutch spring retaining	1
16	932 990	ball 5/32"	12
17	259 705	hub, clutch spring retaining	1
18	945 750	lock washer 5	6
19	241 770	screw, hex. head M5 x 25	6
20	235 205	gear, kick start idler, 31 t.	1
21	237 425	kick start shaft	1
22	245 350	circlip, kick start shaft	1
23	228 195	retaining hub, kick start spring . .	1
24	239 381	spring, kick start return	1
25	944 468	thrust washer	2
26	945 660	snapping, kick start shaft	1
27	239 610	spring, kick start ratchet engagement	1
28	228 180	ratchet gear, kick start	1
29	227 480	thrust washer, kick gear	1
30	235 215	gear, kick start drive, 34 t.	1
31	944 468	thrust washer, kick start	1

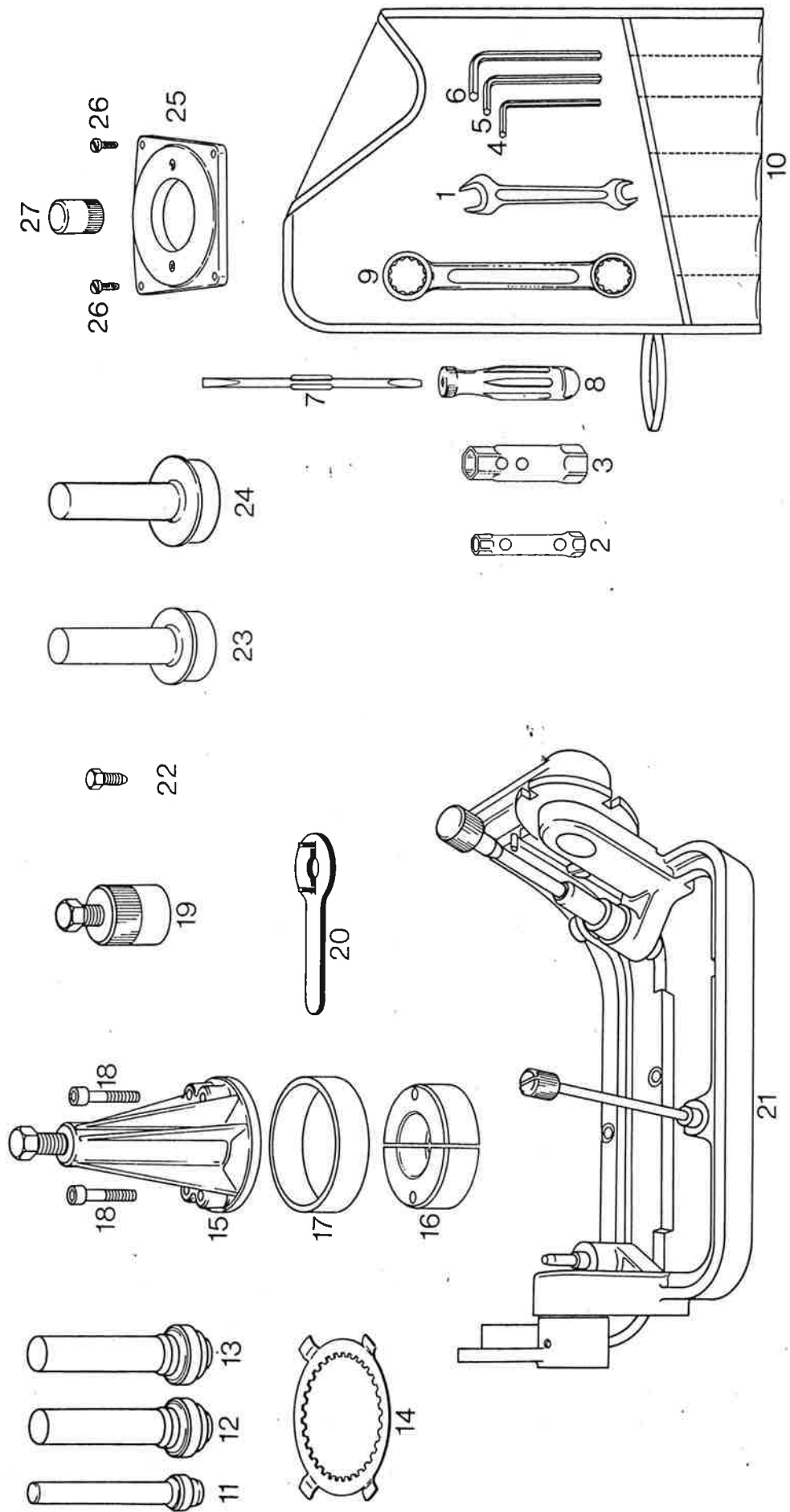
Ill.No.	Part No.	D e s c r i p t i o n	Qty.
32-38	248 798	lever assy., kick start	1
32	248 805	hub, kick start	1
33	248 793	lever, kick start	1
34	239 535	spring, kick start lever	1
35	232 440	ball 7/32", kick start lever	1
36	945 840	snapping, kick start lever	1
37	260 210	rubber sleeve, kick start	1
38	230 461	O-ring, kick start hub	1
39	840 991	cyl. screw M8 x 30	1



Carburetor

Ill.No.	Part No.	D e s c r i p t i o n	Qty.
1	291 852	Bing double float carburetor 84/32/3419	1
2		carburetor housing (not available as spare parts, use carburetor assy.)	1
3	261 635	carburetor piston	1
4	261 641	jet needle	1
5	261 650	holding plate	1
6	227 635	plastic spring cup	1
7	239 700	spring, carburetor piston	1
8	261 670	rubber ring	1
9	261 660	cover plate	1
10	241 430	hex. screw M5 x 12	2
11	963 142	idler jet 40	1
11	963 141	idler jet 30	
11	963 143	idler jet 35	
12	261 705	float needle with VITON tip	1
13	261 710	clip, float needle	1
14	261 692	diffuser	1
15	261 605	needle jet 2,73	1
16	963 130	mixing tube	1
17	268 979	main jet 130	
17	268 980	main jet 135	
17	268 981	main jet 140	
17	268 982	main jet 145	
17	268 983	main jet 150	1
17	268 984	main jet 155	
17	268 985	main jet 160	
17	268 986	main jet 165	
17	268 987	main jet 170	
17	268 988	main jet 175	
17	268 989	main jet 180	
18	261 625	sieve sleeve	1
19	963 192	float	1
20	929 700	pin	1
21	830 720	gasket, float chamber	1
22	963 170	float chamber	1

Ill.No.	Part No.	D e s c r i p t i o n	Qty.
23	963 180	spring clip	1
24	938 640	spring, adjustment screw	1
25	963 160	adjustment screw	1
26	939 880	spring, air regulating screw	1
27	963 150	air regulating screw	1
28	256 033	vent line 160 mm	1
29	268 847	starting piston w. gasket	1
30	239 730	spring, starting piston	1
31	261 770	closure screw	1
32	260 490	rubber cap	1
33	942 540	hex. nut M6 x 0,75	1
34	241 440	adjustment screw M6 x 0,75	1
35	260 370	rubber grommet	1
36	261 750	choke lever assy.	1
37	261 200	hex. nut M5	2
38	945 750	lock washer 5	2
39	240 791	cyl. screw M5 x 10	2



Tools

Ill.No.	Part No.	D e s c r i p t i o n	Quantity	
			244 END	244 END REBUILD
1 - 10	277 780	tool kit, owners	1	1
1	276 065	fork wrench 10/13 mm	1	1
2	876 220	socket wrench 11/13 mm	1	1
3	277 411	socket wrench 17/21 mm	1	1
4	277 790	wrench 4, int. hex. screw	1	1
5	876 360	wrench 5, int. hex. screw	1	1
6	277 810	wrench 6, int. hex. screw	1	1
7	277 830	insert for screw driver	1	1
8	277 840	grip for screw driver	1	1
9	277 825	ring wrench	1	1
10	876 195	tool bag	1	1
11	277 850	oil seal insertion jig, to mount oil seal in clutch cover	1	1
12	277 870	oil seal insertion jig, to mount oil seal 230 421	1	1
13	277 875	oil seal insertion jig, to mount oil seal 230 425	1	1
13	277 860	oil seal insertion jig, to mount oil seal 230 390	-	1
14	277 885	clutch hub locking tool	1	1
15	876 296	puller assy. for bearing on crankshaft	1	1
16	277 890	ringhalf for puller, bearing on crankshaft, clutch side	2	2
16	276 020	ringhalf for puller, bearing on crankshaft, magneto side	2	2
17	977 480	ring for puller	1	1
18	840 680	cyl. screw w. int. hex. M8 x 40	2	2
19	277 805	puller assy. for flywheel	1	1
20	277 900	pump gear wrench	1	1
21	277 910	assembly trestle	1	1
22	241 960	locating bolt for crankshaft	1	1
23	276 190	plastic ring insertion jig, clutch side	1	1
24	276 930	plastic ring insertion jig, magneto side	1	1
25	276 910	plate for puller, crankcase half	1	1
26	840 351	cyl. screw M5 x 20	4	4
27	276 920	protection cap	1	1