



PARTS LIST NO. 512

FOR ROTAX ENGINE

TYPE 280 TL

ROTAX PRODUCTION 1984

BOMBARDIER MODEL 1985



EDITION 1985

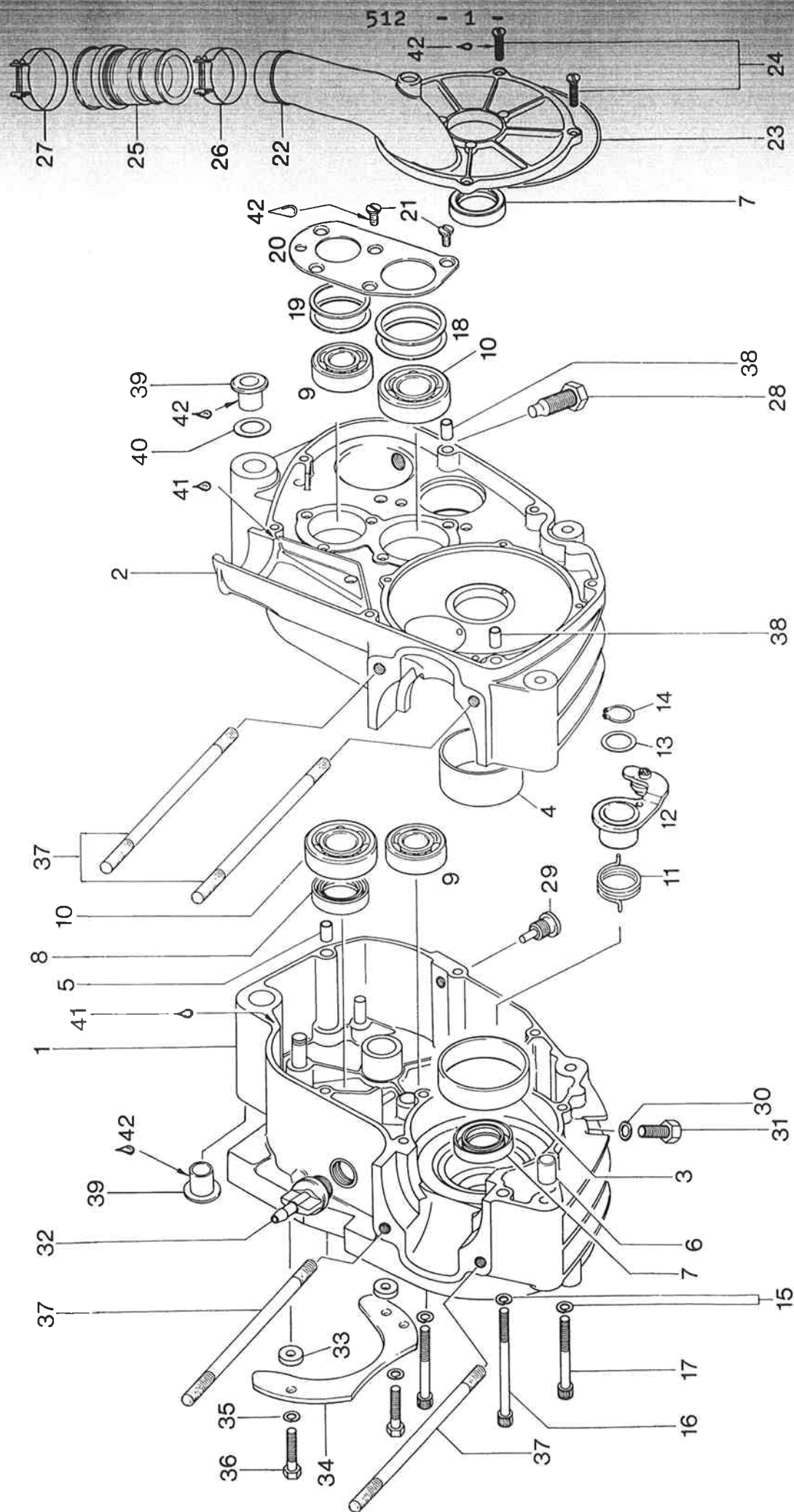


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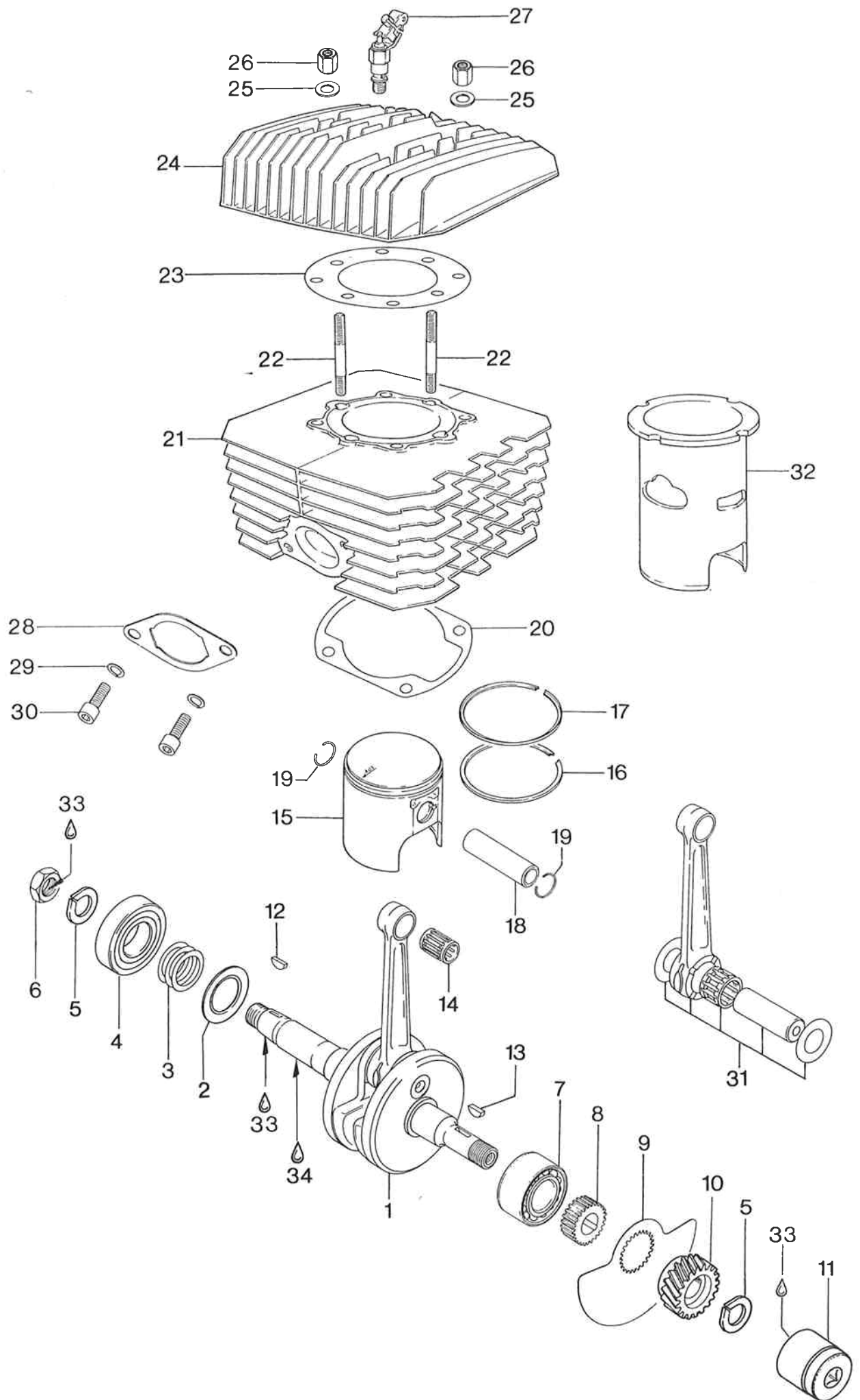




Crankcase, Disk Valve Cover

Ill. No.	Part No.	Description	Qty.
1 - 6	292 319	crankcase assy.	1
3	960 767	ring, crankcase, magneto side . .	1
4	260 400	ring, crankcase, clutch side . . .	1
5	229 140	dowel 9,8x10, locating	1
6	229 160	dowel 13,8 Ø x 15, locating	1
7	230 425	oil seal, 28x38x7 crankshaft . . .	2
8	230 421	oil seal, 28x38x7 transmission main shaft	1
9	932 030	ball bearing 6203	2
10	932 432	ball bearing 6204	2
11	239 755	spring, index	1
12	248 977	lever assy., index	1
13	227 800	washer 16,2/21/0,4	1
14	945 840	snapping 15 x 1, index	1
15	945 751	lock washer 6	10
16	241 871	screw M6x70, allen head	5
17	241 820	screw M6x45, allen head	5
18	227 610	shim 40/46,5/0,5 transmission clutch shaft bearing	as requ.
	227 611	shim 40/46,5/0,3 transmission clutch shaft bearing	as requ.
	227 612	shim 40/46,5/0,1 transmission clutch shaft bearing	as requ.
19	227 520	shim 34/39,5/0,5 transmission main shaft bearing	as requ.
	227 521	shim 34/39,5/0,3 transmission main shaft bearing	as requ.
	227 522	shim 34/39,5/0,1 transmission main shaft bearing	as requ.

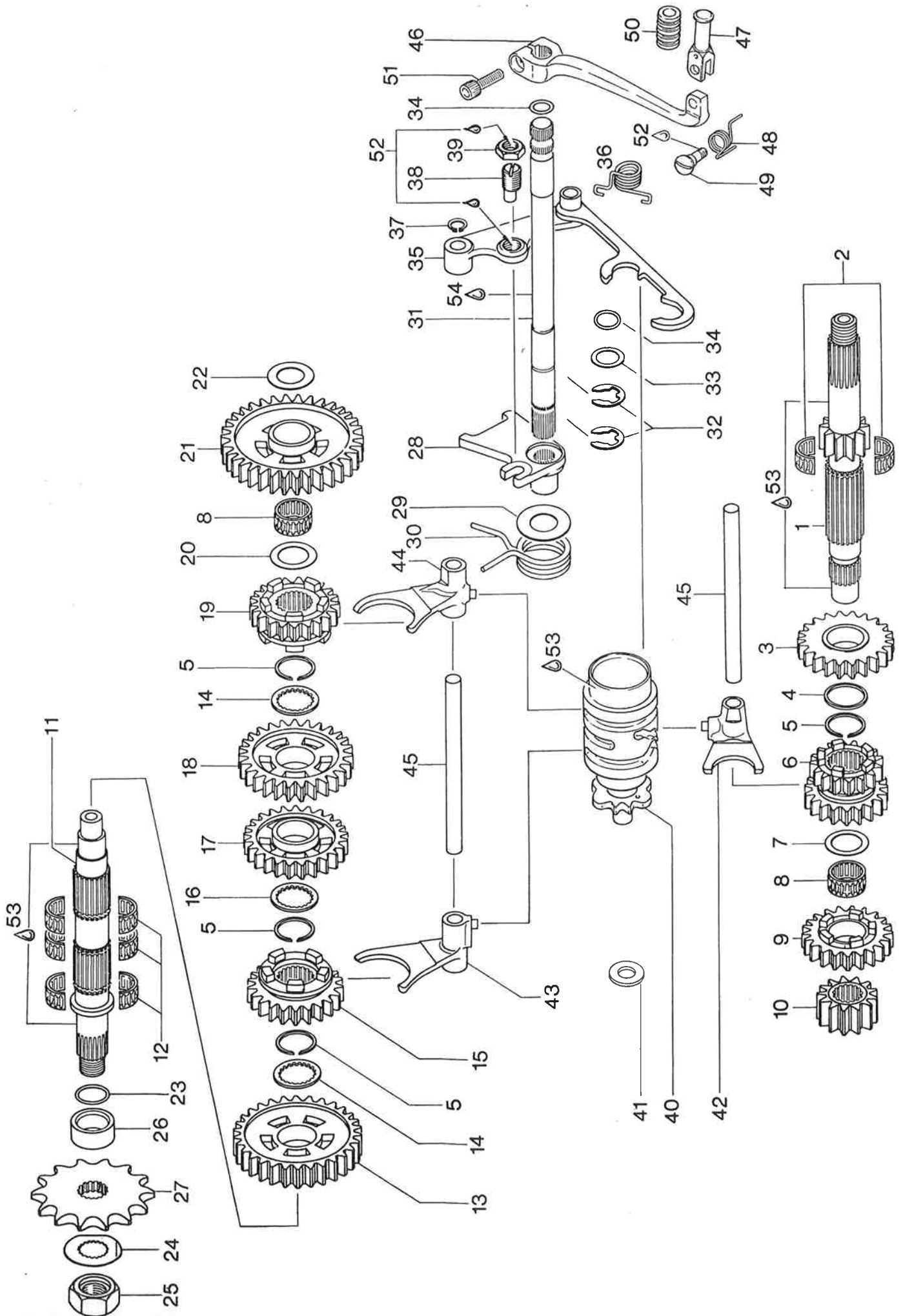
Ill. No.	Part No.	Description	Qty.
20	227 555	retaining plate, transmission bearings	1
21	940 315	screw M5x12, countersunk, slot head	5
22	212 352	disk valve cover	1
23	230 310	O-ring 114-2, disk valve cover .	1
24	940 510	screw M5x16, countersunk, slot head	4
25	267 790	adapter, carburetor	1
26	251 860	hose clamp assy., 38 mm, carburetor adapter	1
27	251 845	hose clamp assy., 42 mm carburetor adapter	1
28	241 777	screw M 12, kick starter stop . .	1
29	241 781	plug M12 x 1,5, magnetic drain .	1
30	950 141	gasket ring C8 x 14	1
31	940 581	hex. screw M8 x 16, crankcase drain	1
32	241 925	oil filler cap M18 x 1,5	1
33	247 240	spacer 6,2/16/2,5, chain guard .	2
34	297 528	chain guard	1
35	945 751	lock washer 6	2
36	241 186	hex. screw M6 x 16	2
37	840 780	stud M8 x 170, cylinder	4
38	949 900	dowel 8,4 x 10, locating	2
39	247 320	sleeve	2
40	246 150	shim 16,3/25,8/0,3 mm	as requ.
	246 151	shim 16,3/25,8/0,5 mm	as requ.
41	899 784	LOCTITE 574 orange, sealing material 50 c.c.	as requ.
42	899 783	means of securing, LOCTITE 221 violet	as requ.



Crankshaft, Piston, Cylinder, Cylinder Head

Ill. No.	Part No.	Description	Qty.
1	291 990	crankshaft assy.	1
2	227 755	shim 30,9/50/0,75, crankshaft magneto side	1
3	944 582	shim 30,4/40,5/0,3 mm, crankshaft magneto side	as requ.
	944 583	shim 30,4/40,5/0,1 mm, crankshaft magneto side	as requ.
	944 586	shim 30,4/40,5/0,2 mm, crankshaft magneto side	as requ.
4	932 581	ball bearing 6206, crankshaft, magneto side	1
5	945 757	lock washer 18	2
6	942 220	hex. nut M18 x 1,5 crankshaft, magneto side	1
7	232 750	ball bearing 3205, double row, crankshaft, clutch side	1
8	247 290	spacer, disk valve	1
9	224 102	disk valve	1
10	292 182	drive gear with clutch drum assy. (re- place only drive gear with clutch drum assy.)	1
11	242 670	nut M18 x 1,5, crankshaft, clutch side	1
12	246 011	key 3 x 5, Woodruff, crankshaft magneto side	1
13	246 570	key 4 x 5, Woodruff, crankshaft, clutch side	1
14	932 904	needle bearing 18x22x22, piston pin	1
15, 16, 17	291 985	piston assy. w. rings 76,0 Ø, standard	1
	291 981	piston assy. w. rings 76,25 Ø, 1st oversize.	1
	291 982	piston assy. w. rings 76,50 Ø, 2nd oversize	1

Ill. No.	Part. No.	Description	Qty.
16	915 215	rectangular ring 76,0 Ø, standard	1
	215 201	Rectangular ring 76,25 Ø, 1st oversize	1
	215 202	Rectangular ring 76,50 Ø, 2nd oversize	1
17	915 820	SEMI-trapez ring 76,0 Ø, standard	1
	915 821	SEMI-trapez ring 76,25 Ø, 1st oversize	1
	915 822	SEMI-trapez ring 76,5 Ø, 2nd oversize	1
18	916 180	piston pin 18 mm	1
19	945 735	circlip, piston pin	2
20	230 552	gasket, cylinder base	1
21	213 908	cylinder with sleeve assy.	1
22	840 610	stud, M8 x 49/15, cylinder head	4
23	230 775	shim, cylinder head	as requ.
24	213 922	cylinder head	1
25	250 311	washer 8,4, cylinder head nut	8
26	842 130	hex. nut M8, cylinder head	8
27	291 600	decompressor assy.	1
28	830 270	gasket, exhaust socket	1
29	945 752	lock washer	2
30	240 081	cylinder screw M8 x 25, exhaust socket	2
31	292 024	crankshaft-repair set	1
32	213 913	cylinder sleeve	1
33	899 783	means of securing, LOCTITE 221, violet	as requ.
34	297 431	LOCTITE Antisize 10 g	as requ.



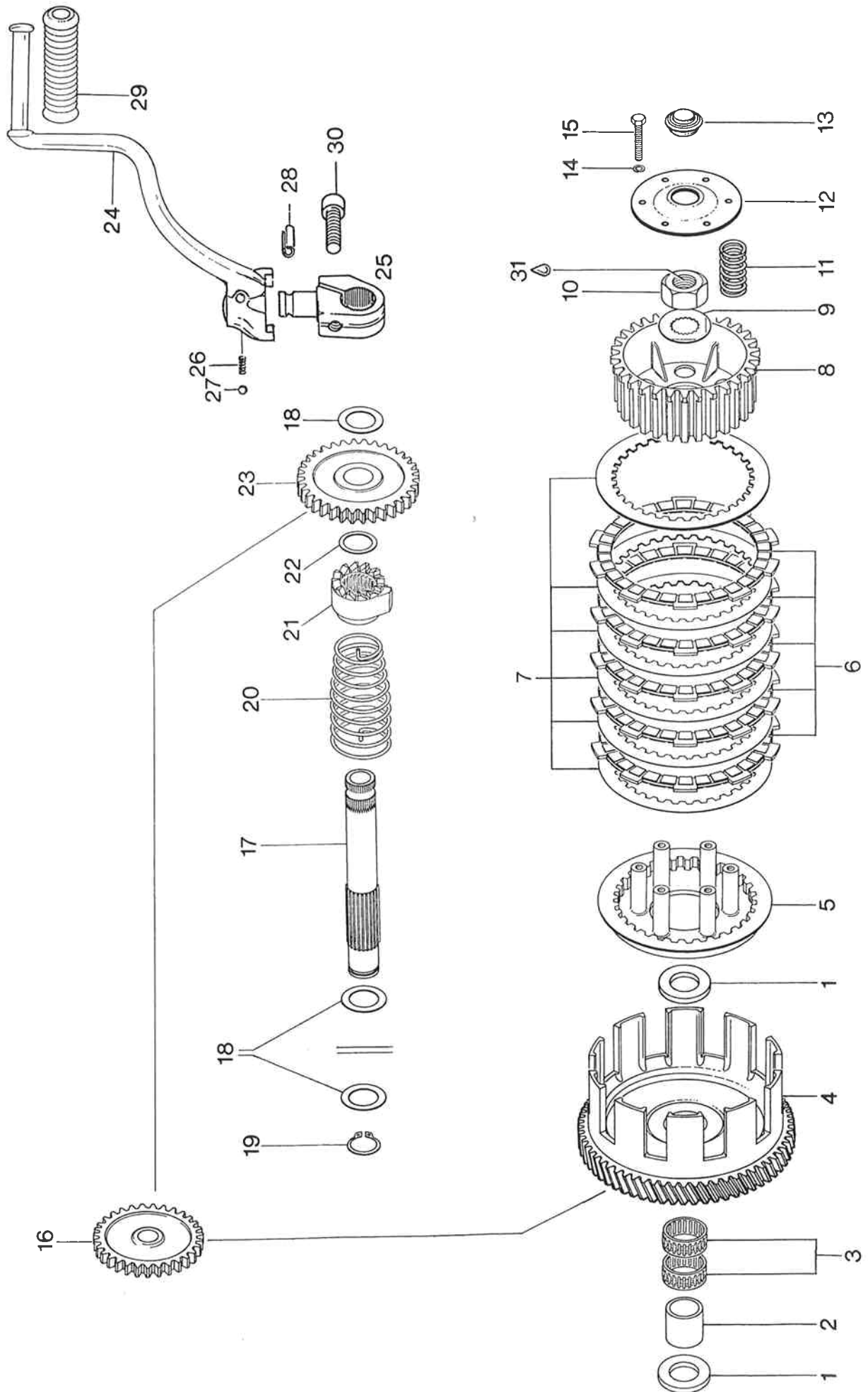
Transmission

Ill. No.	Part No.	Description	Qty.
1 - 25	281 030	transmission assy.	1
1	237 407	clutch shaft 10 t	1
2	232 665	needle bearing 20x24x10, clutch shaft	1
3	235 440	gear 25 t 6th, clutch shaft . . .	1
4	227 470	thrust washer 24,2/27,5/1,5, clutch shaft	1
5	245 340	snapping 24	4
6	235 400	gear 15/18t 3rd/4th, clutch shaft .	1
7	227 440	thrust washer 20,2/27,5/1, clutch shaft	1
8	232 660	needle bearing 20x24x10	2
9	234 866	gear 21t 5th, clutch shaft . . .	1
10	235 380	gear 12 t 2nd, clutch shaft . . .	1
11	237 417	main shaft	1
12	232 740	needle bearing 21x25x10, main shaft.	3
13	235 393	gear 2nd, main shaft	1
14	227 460	thrust washer 22/30/1,8, main shaft	2
15	234 878	gear 5th, main shaft	1
16	227 490	angular ring 22/30/2,8	1
17	235 423	gear 25 t 4th, main shaft	1
18	235 413	gear 29 t 3rd, main shaft	1
19	235 433	gear 19 t 6th, main shaft	1
20	944 468	thrust washer 20,5/30/1, main shaft	1
21	234 808	gear 34 t 1st, main shaft	1
22	227 430	thrust washer 17,2/30/1, main shaft	1
23	230 400	O-ring 18-1,5, main shaft	1
24	245 320	washer, main shaft locking . . .	1
25	242 605	hex.nut, main shaft	1

Ill. No.	Part No.	Description	
26	247 225	spacer, sprocket	1
	* 236 975	sprocket 12 t.	1
27	236 950	sprocket 13 t.	1
	236 951	sprocket 14 t.	1
28	258 575	lever, transmission actuating . . .	1
29	427 070	thrust washer 18,2/34/1, transmission actuating lever	1
30	239 640	spring, transmission actuating lever	1
31	237 437	shift shaft	1
32	945 790	retaining ring 12, shift shaft . .	2
33	944 851	thrust washer 14,3/20/0,5, shift shaft	1
34	430 110	O-ring 10-2,7, shift shaft	2
35	258 645	pawl assy.	1
36	239 650	spring, pawl	1
37	245 330	snapring 10 x 1	1
38	241 805	screw 12x1, pawl positioning . . .	1
39	242 270	hex. nut 12x1, pawl positioning locking	1
40	258 735	shift drum assy.	1
41	827 265	washer 12,5/21,5/2	1
42	258 695	fork, shifting 5 - 6	1
43	258 685	fork, shifting 2 - 4	1
44	258 677	fork, shifting 1 - 3	1
45	258 540	pin, shift fork guide	2
46 - 50	248 857	shift lever assy.	1
46	248 855	shift lever	1
47	248 905	folding lever	1
48	239 770	spring	1
49	240 145	bearing screw M6 x 19.	1
50	260 545	rubber sleeve, folding lever . . .	1

Ill. No.	Part No.	Description	Qty.
51	241 930	screw M6 x 20, allen head . . .	1
52	899 783	means of securing LOCTITE 221 violet	as requ.
53	297 431	LOCTITE-Antisize 10 g	as requ.
54		BP-Energreae LS3	as requ.

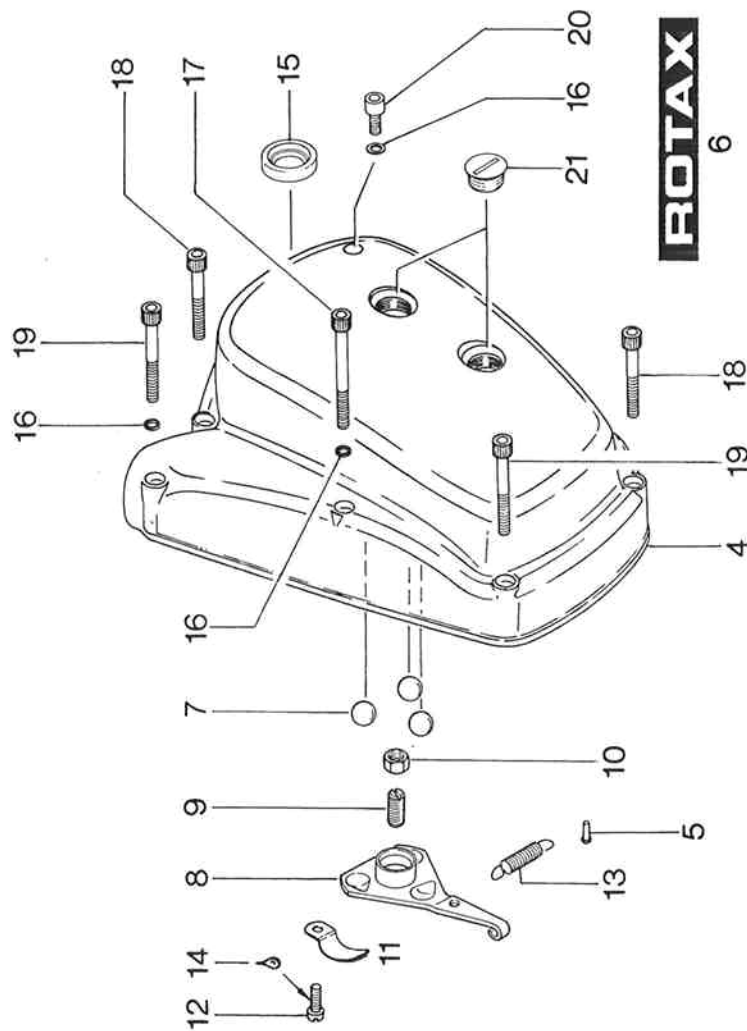
*This part is mounted as standard



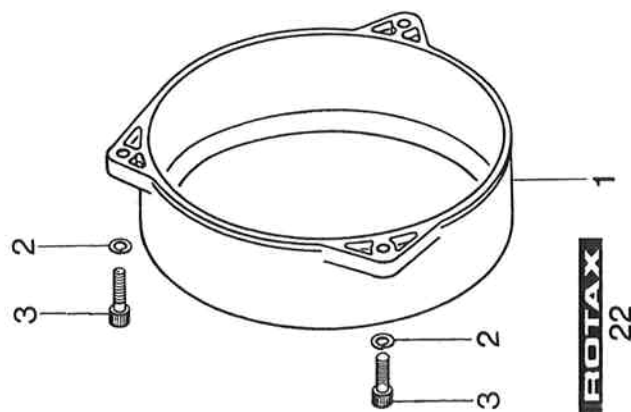
Clutch, Kick Start

Ill. No.	Part No.	Description	Qty.
1	227 600	thrust washer 20,2/35/3, clutch drum	2
2	232 700	inner race, clutch drum	1
3	232 650	needle bearing 25x29x10, clutch drum	2
4	292 182	drive gear with clutch drum assy. (replace only drive gear with clutch drum assy.)	1
5	259 570	plate, clutch, inner pressure	1
6	259 562	plate 3,5 mm, clutch, friction	5
7	259 555	plate 1,5 mm, clutch, outer pressure	6
8	259 547	clutch hub	1
9	245 320	washer 20, transmission shaft locking	1
10	242 605	hex.nut M18 x 1,5, transmission shaft	1
11	239 740	spring, clutch (change springs only setwise)	6
12 - 13	259 597	plate assy., clutch spring retaining with thrust bearing	1
12	259 592	plate, clutch spring retaining	1
13	232 180	thrust bearing 8x20x8,5	1
14	945 750	lock washer 5	6
15	241 770	screw M5 x 25, hex. head	6
16	235 207	gear assy., kick start idler	1
17	237 428	kick start shaft	1
18	944 468	thrust washer 20,5/30/1	3
19	945 660	snapping 20 x 1,2, kick start shaft	1
20	239 761	spring, kick start return	1
21	228 185	ratchet gear, kick start	1
22	227 480	thrust washer 20,2/25,5/1, kick gear	1
23	235 215	gear, kick start drive	1

Ill. No.	Part No.	Description	Qty.
24 - 28	248 040	lever assy., kick start	1
24	248 035	lever, kick start	1
25	248 985	hub, kick start	1
26	239 537	spring, kick start lever	1
27	232 440	ball 7/32", kick start lever . .	1
28	229 210	dowel tube 6 x 20	1
29	260 210	rubber sleeve, kick start	1
30	840 991	cyl. screw M8 x 30	1
31	899 783	means of securing LOCTITE 221 violet as requ.	



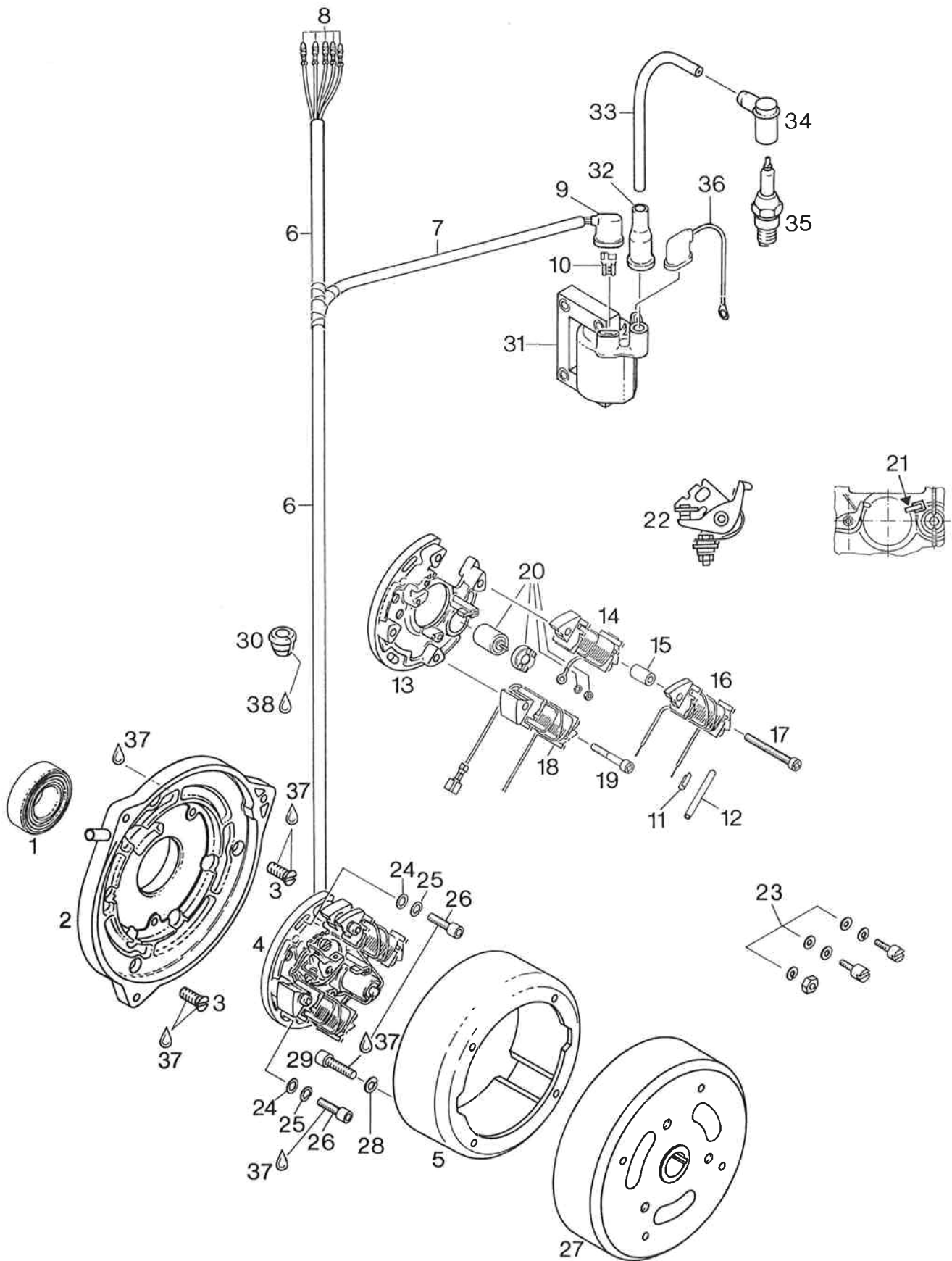
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Magneto Cover, Clutch Cover

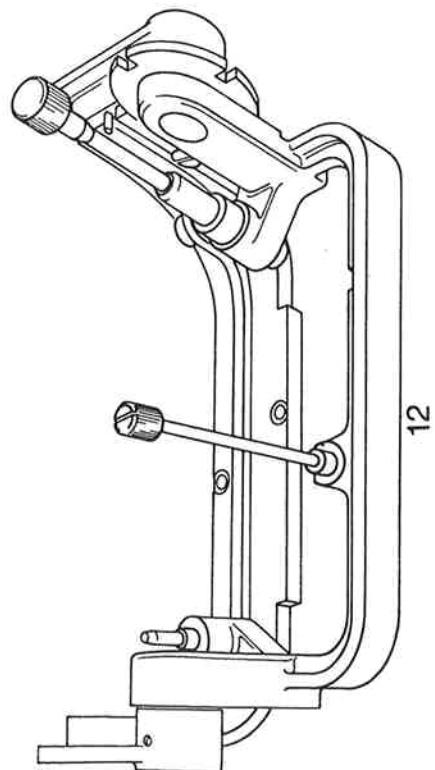
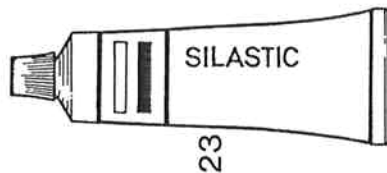
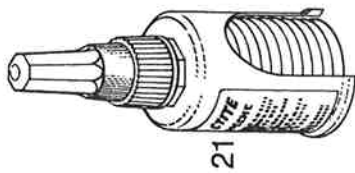
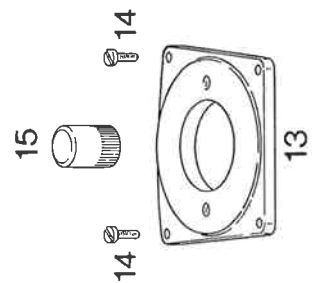
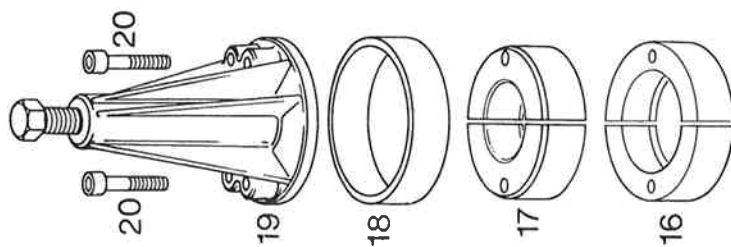
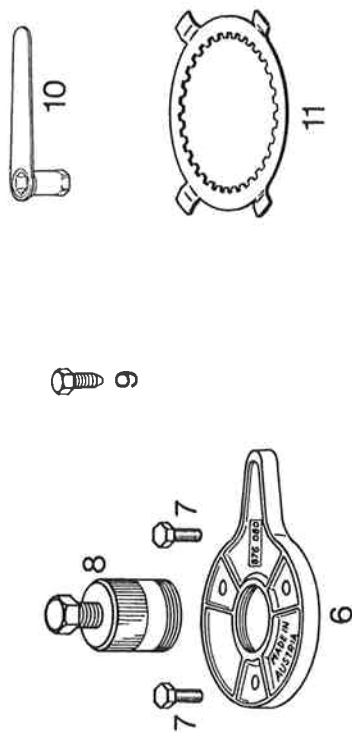
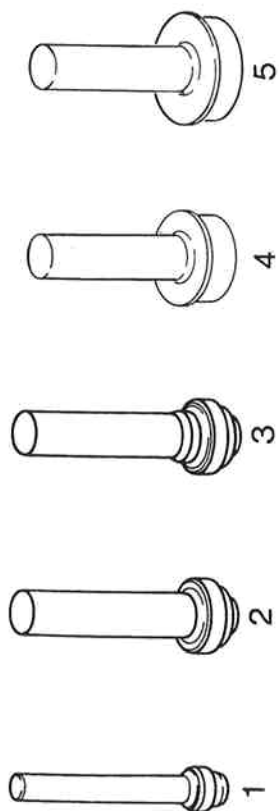
Ill. No.	Part No.	Description	Qty.
1	212 318	magneto cover	1
2	945 751	lock washer 6	3
3	840 861	cylinder screw M6 x 25	3
4 - 14	212 278	clutch cover with clutch release assy	1
4 - 6	212 276	clutch cover assy.	1
5	949 030	drive pin 3 x 8	1
6	297 492	"ROTAX" label	1
7	232 150	ball 12 mm	3
8	259 945	cam assy., clutch release	1
9	240 310	screw M8 x 19,5, clutch adjustment	1
10	942 670	hex. nut M8	1
11	239 901	spring, clutch cam retaining . . .	1
12	240 560	screw M5 x 12	1
13	239 635	spring, clutch cam return	1
14	899 783	means of securing LOCTITE 221 violet as requ.	
15	230 355	oil seal 20x28x6, kick start shaft	1
16	830 890	sealing ring 6,2/8,9/1, clutch cover	3
17	241 761	screw, allen head M6 x 50	1
18	241 811	screw, allen head M6 x 35	5
19	241 816	screw, allen head M6 x 40	3
20	840 371	plug, oil level M6 x 11,5	1
21	241 800	plug M18 x 1,5, adjustment	2
22	297 495	"ROTAX" label, magneto side . . .	1



Magneto Generator 12V 75/23W

Ill. No.	Part No.	Description	Qty.
1	932 425	ball bearing 6205	1
2	212 303	ignition plate assy.	1
3	941 831	screw M8 x 20, countersunk slot head	3
4 - 23	992 569	magneto generator assy. 12V 75/23W	1
4,6 - 23	992 589	stator plate assy.	1
5	983 864	magneto ring	1
6	260 435	protection hose 600 mm	1
7	260 520	protection hose 230 mm	1
8	964 062	contact pin	5
9	960 590	rubber cap	1
10	864 261	faston connector 6,3	1
11	264 530	cable terminal	as requ.
12	260 412	protection hose 30 mm	as requ.
13	865 910	stator plate alone	1
14	865 890	generator coil	1
15	847 240	distance sleeve	2
16	865 900	lighting coil 23W	1
17	241 415	cylinder screw M5 x 32	2
18	865 026	lighting coil 75W	1
19	640 095	cylinder screw M5 x 25	2
20	964 217	condenser assy.	1
21	265 815	lubricating wick	1
22	983 343	contact breaker set	1
23	964 210	parts set	1
24	927 570	washer 5,3	3
25	945 750	lock washer 5	3

Ill. No.	Part No.	Description	Qty.
26	840 510	screw M5 x 16, allen head . . .	3
27	264 637	flywheel assy.	1
28	945 751	lock washer 6	4
29	840 390	cylinder screw M6 x 14	4
30	960 282	cable grommet 15,5	1
31	984 555	ignition coil	1
32	960 550	protection cap	1
33	964 185	ignition cable 280 mm	1
34	865 200	spark plug protector	1
35		spark plug	1
36	864 271	mass cable assy.	1
37	899 783	means of securing LOCTITE 221 violet, 6 c.c.	as requ.
38	297 386	silastic, sealant	as requ.



Tools

Ill. No.	Part No.	Description	Qty.
1	277 850	oil seal insertion jig, for oil seal 230 355 kickstart shaft . .	1
2	277 870	oil seal insertion jig, for oil seal 230 421, main shaft . . .	1
3	277 875	oil seal insertion jig, for oil seal 230 425, crankshaft . . .	1
4	276 190	plastic ring insertion jig, for crankcase ring 260 400, clutch side	1
5	276 930	plastic ring insertion jig, for crankcase ring 960 767, magneto side	1
6	876 080	holder for puller	1
7	940 591	hex. screw M8 x 20	3
8	876 065	puller assy. for flywheel . . .	1
9	241 965	locating bolt for crankshaft M8 x 30	1
10	276 040	wrench 11 mm, clutch adjustment .	1
11	277 887	clutch hub locking tool . . .	1
12	277 915	assembly trestle	1
13	276 910	plate for puller, crankcase half	1
14	840 351	cyl. screw M5 x 20	4
15	276 920	protection cap.	1
16	276 020	ringhalf for ball bearing, magneto side	2
17	277 890	ringhalf for ball bearing, clutch side	2
18	977 480	ring for puller	1
19	876 296	puller assy. for bearing on crankshaft	1
20	840 680	cyl. screw M8 x 40	2
21	899 784	sealing material, LOCTITE 574, orange, 50 c.c.	1
22	297 431	LOCTITE Autisize 10 g	1
23	297 386	Silastic sealant 100 g	1
24	293 172	gasket set assy.	1