



OPTIONAL ATTACHMENTS & ACCESSORIES

Accessories

90090	Driveshaft Assembly
99946400020	Power Pruner 5 Foot Orange Extension

Attachments

99946400040	Hedger Accessory
99946400050	Power Pruner Circle Saw Accessory
99946400060	Hedge Clipper Attachment

Guide Bars

1080373301	Guide Bar - 8" (.050" Ga)
1100373901	Guide Bar - 10" (.043" Ga)
1101373901	Guide Bar - 10" (.050" Ga)
1102373901	Guide Bar - 10" (.050" Ga) -- Intenz
1120374401	Guide Bar - 12" (.050" Ga)
1121374401	Guide Bar - 12" (.050" Ga)
1122374401	Guide Bar - 12" (.050" Ga) -- Intenz

Sawing Chains

1907039	Sawing Chain - 10" (.043" Ga) -- Micro-Lite
1907044	Sawing Chain - 12" (.043" Ga) -- Micro-Lite
1917033	Sawing Chain - 8" (.050" Ga) -- Low Profile
1917039	Sawing Chain - 10" (.050" Ga) -- Low Profile
1917044	Sawing Chain - 12" (.050" Ga) -- Low Profile

Maintenance and Repair Kits

90093	Gear Case/Oiler Assembly
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PARTS CATALOG

PPT-230 Power Pruner

22.8cc

SERIAL NUMBERS

S/N: 06001001 - 06999999

ECHO, INCORPORATED

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PPT-230 S/N: 06001001 - 06999999

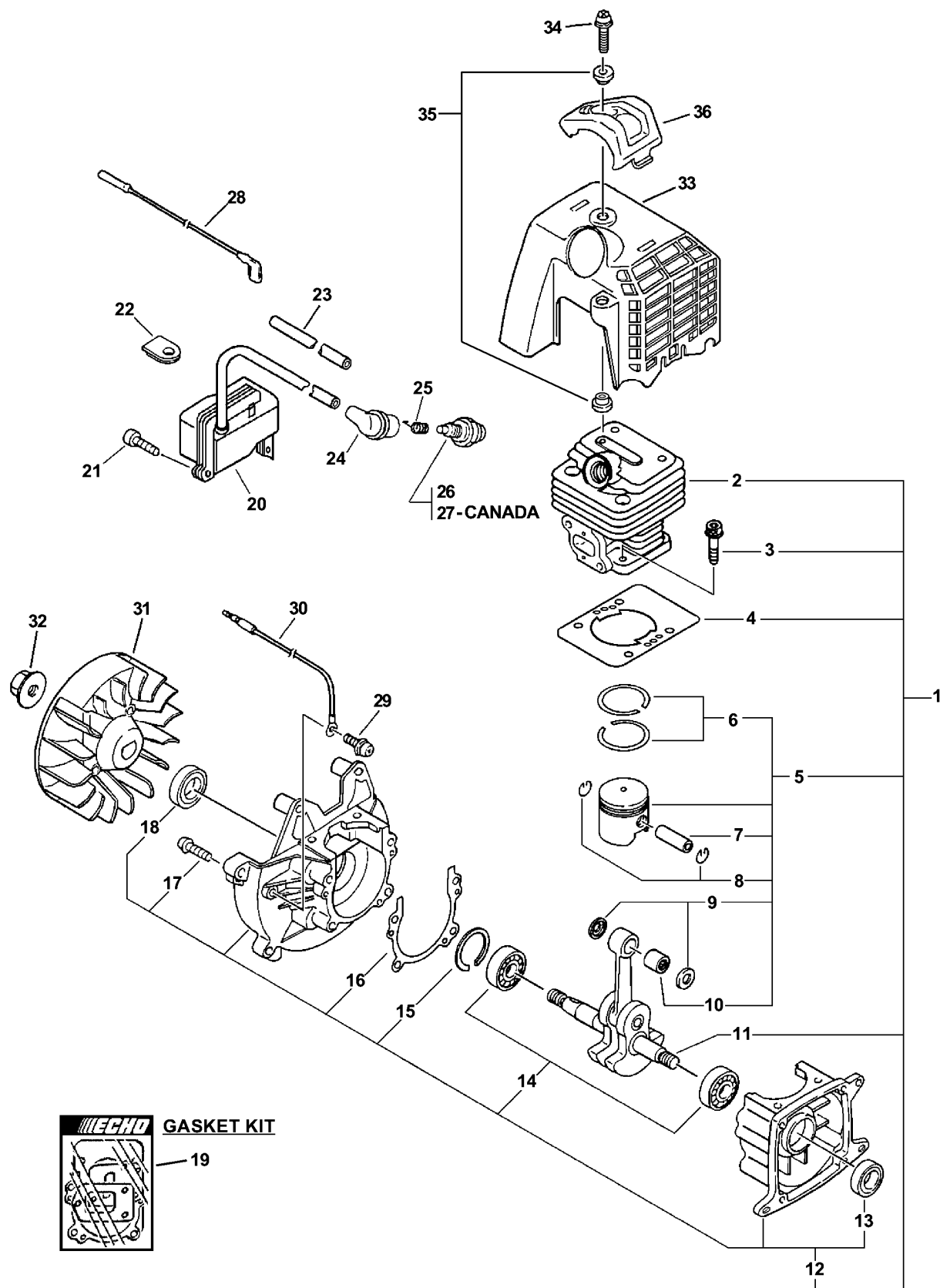
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Service Publications

This Section Lists Important Service Publications Relating To The Models Included In This Manual.

Literature Type	Literature Title
Parts Bulletin	02-05 -- Power Pruner Identification Guide
Parts Bulletin	04-12 -- Lower Drive Shaft Improvements
Parts Manual	PPT 230 S/N: 06001001 - 06999999
Service Bulletin	04-18R1 -- BPM-8Y Spark Plug Required Use Procedure
Service Bulletin	05-01 -- Power Pruner Upper Driveshaft
Service Bulletin	05-16 -- Power Pruner Gear Case
Service Bulletin	07-06 -- Emission Engine Compression Range Test Chart



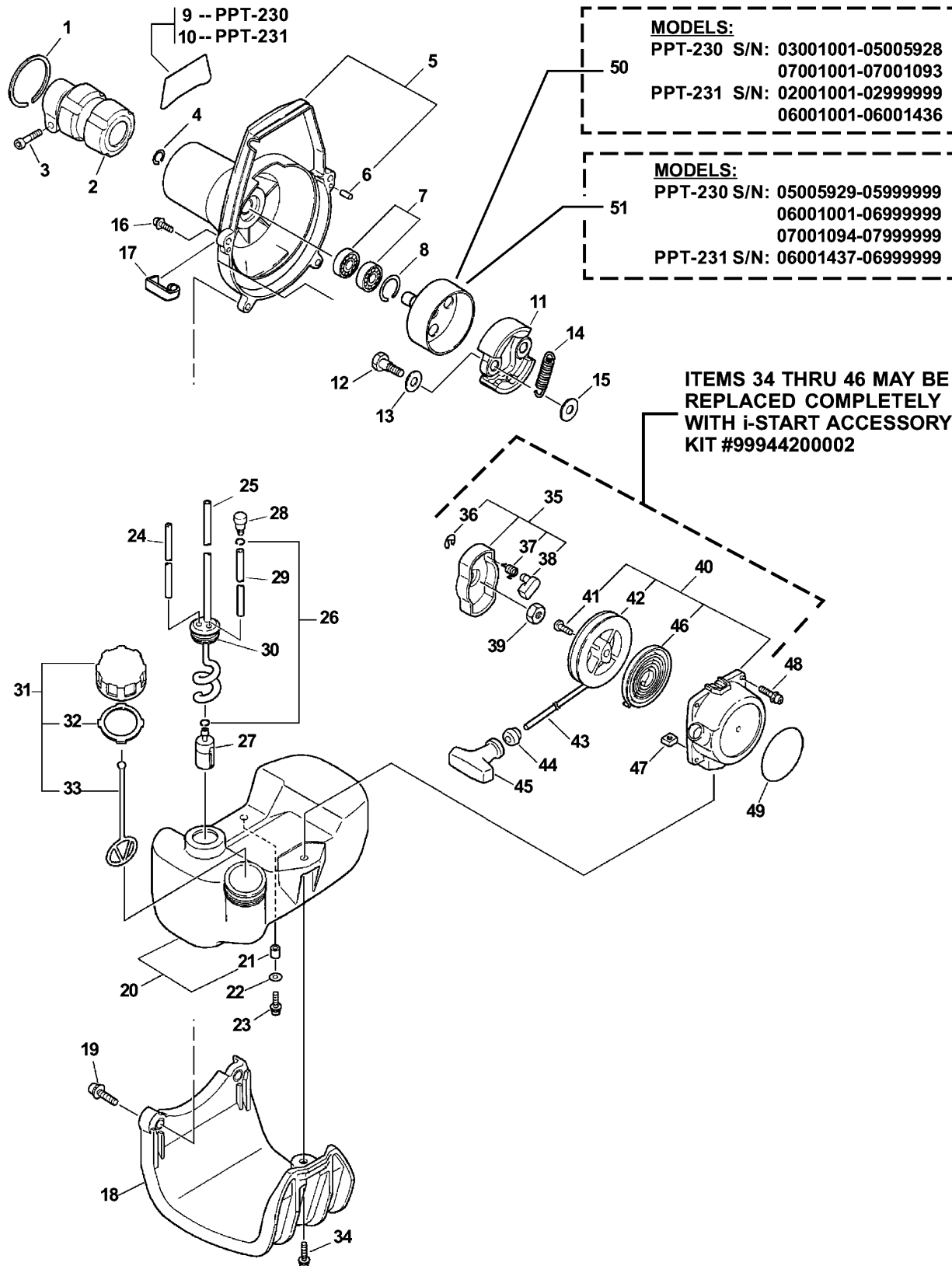
PPT-230 Power Pruner

Engine, Short Block, Ignition, Cylinder Cover

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	SB1061	1	SHORT BLOCK	INCLUDES ITEMS 2-18
2	A130000341	1	CYLINDER	
3	90016205022	4	SCREW 5X22	
4	V100000060	1	GASKET, CYLINDER ¹	
5	P021001101	1	PISTON KIT	INCLUDES ITEMS 6-9
6	A101000000	2	RING, PISTON	
7	10001311520	1	PIN, PISTON	
8	10001504630	2	CIRCLIP, PISTON PIN	
9	10001411520	2	SPACER, PISTON PIN	
10	V553000010	1	BEARING, NEEDLE	
11	A011000042	1	CRANKSHAFT ASY	
12	P021000940	1	CRANKCASE KIT	INCLUDES ITEMS 13-18
13	10021305530	1	OIL SEAL	
14	90080036001	2	BEARING, BALL 6001	
15	90070200028	1	CIRCLIP 28	
16	10024255930	1	GASKET, CRANKCASE ¹	
17	90016205025	4	SCREW 5X25	
18	10021228230	1	OIL SEAL	
19	P021003900	1	GASKET KIT	
20	A411000110	1	COIL, IGNITION	
21	90016205016	2	SCREW 5X16	
22	15611240630	1	GROMMET	
23	V475002200	1	TUBE, INSULATOR	
24	15901203433	1	CAP, SPARK PLUG	
25	15901103432	1	TERMINAL, SPARK PLUG CAP	
26	15901019830	1	SPARK PLUG -- BPM-8Y	
27	A425000000	1	SPARK PLUG -- BPMR-8Y	CANADA MODELS
28	16201056430	1	LEAD, GROUND	
29	90024205010	1	SCREW 5X10	
30	16201452930	1	LEAD, GROUND	
31	A409000130	1	FLYWHEEL	
32	90051500008	1	FLANGE NUT 8	
33	A160000060	1	COVER, ENGINE -- ORANGE	
34	9111005016	1	SCREW 5X16	
35	V353000020	2	COLLAR 5	
36	A162000000	1	GUARD, TOP	

Footnotes

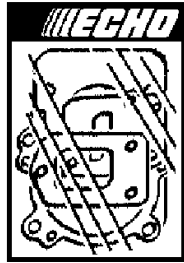
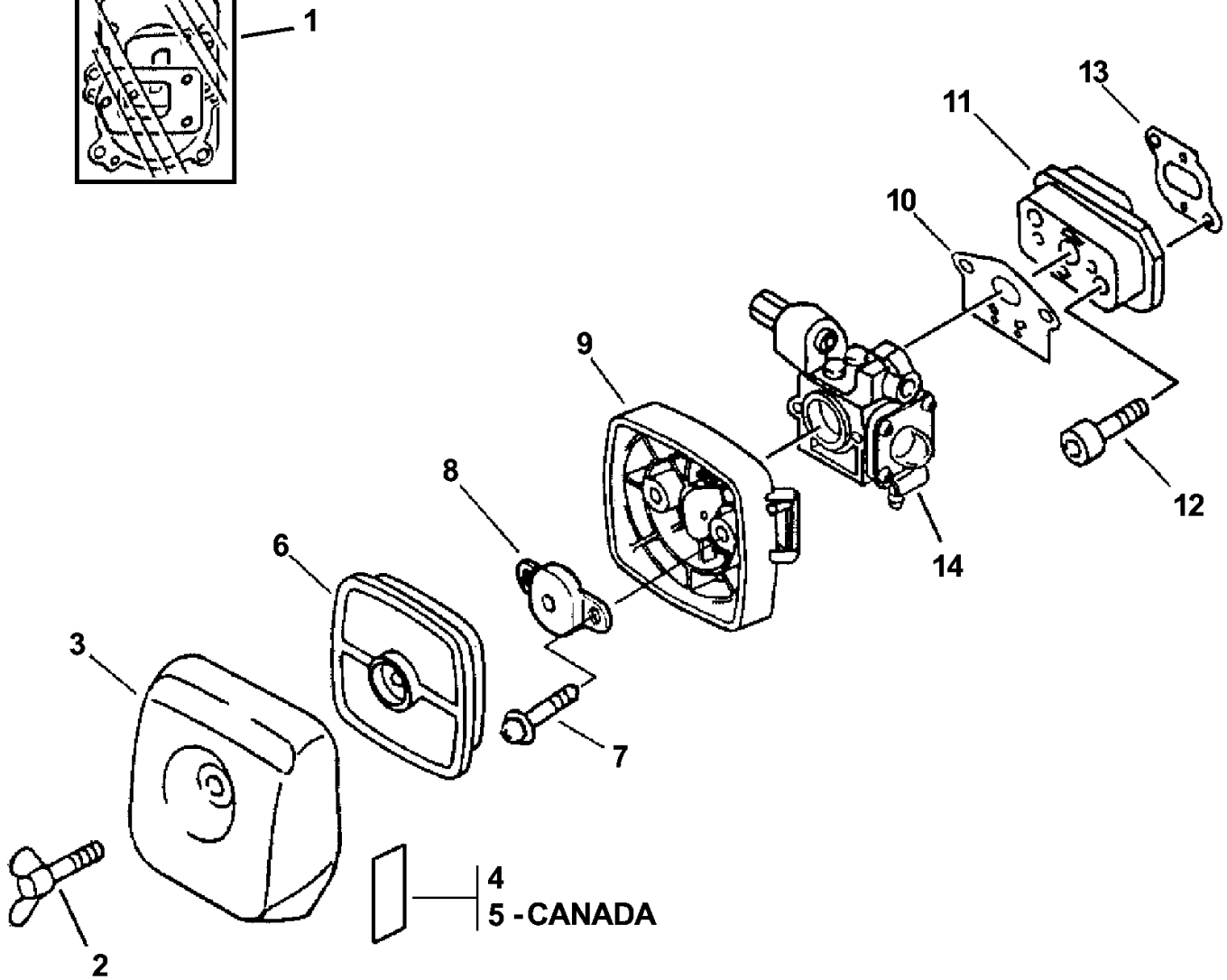
1: Also Included In GASKET KIT



PPT-230 Power Pruner

Fancase, Clutch, Fuel System, Starter

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	90070200042	1	CIRCLIP 42	
2	61092255931	1	FIXTURE, MAIN PIPE	
3	90016205028	1	SCREW 5X28	
4	90070100012	1	CIRCLIP 12	
5	A172000120	1	COVER, FAN	INCLUDES ITEM 6
6	V622000020	2	DOWEL PIN - 4X7.8mm	
7	90080796001	2	BEARING, BALL - 6001	
8	90070200028	1	CIRCLIP 28	
9	X503000980	1	LABEL - MODEL -- PPT-230	
10	X503001680	1	LABEL - MODEL -- PPT-231	
11	A553000010	2	SHOE, CLUTCH	
12	17504656030	2	SHAFT, CLUTCH	
13	17504956030	2	WAVE, WASHER	
14	V451000090	1	SPRING, CLUTCH	
15	17504805530	2	WASHER	
16	90016205018	2	SCREW 5X18	
17	17811106230	1	CLIP	
18	30511057733	1	STAND	
19	90016205022	2	SCREW 5X22	
20	A350000111	1	TANK, FUEL	INCLUDES ITEM 21
21	13104528230	2	SPACER	
22	90060300005	2	WASHER 5	
23	90016205016	2	SCREW 5X16	
24	13201256030	1	PIPE, RETURN - 3X6X80mm	REPOWER BULK OPTION: 90017
25	13201052030	1	PIPE, FUEL - 3X6X170mm	REPOWER BULK OPTION: 90015
26	13201326630	2	CLIP	
27	13120519830	1	FILTER, FUEL	
28	A356000030	1	VENT ASY	
29	V471000110	1	PIPE, VENT - 3X6X115mm	REPOWER BULK OPTION: 90015
30	13211555930	1	GROMMET, FUEL	
31	13100455530	1	CAP ASY	INCLUDES ITEM 32-33
32	13101655830	1	GASKET, CAP	
33	13105156030	1	CONNECTOR, CAP	
34	90024405020	1	SCREW 5X20	
35	A052000030	1	STARTER PAWL ASY	INCLUDES ITEMS 36-38
36	90070000004	1	E-RING 4	
37	17723440630	1	SPRING, RETURN	
38	17721840630	1	PAWL, STARTER	
39	90050200008	1	NUT 8	
40	17720055931	1	STARTER ASY	INCLUDES ITEMS 41-46
41	17723644330	1	SCREW	
42	17721540630	1	DRUM, STARTER	
43	17722603930	1	ROPE, STARTER - 3.5X850mm	REPOWER BULK OPTION: 99944445000
44	17722742030	1	GUIDE, ROPE	
45	17722827030	1	GRIP, STARTER	
46	17722040630	1	SPRING, REWIND	
47	90056500005	1	NUT	
48	9112604012	4	BOLT 4X12	
49	X502000190	1	LABEL, ECHO	
50	A556000030	1	DRUM, CLUTCH	
51	A556000280	1	DRUM, CLUTCH	

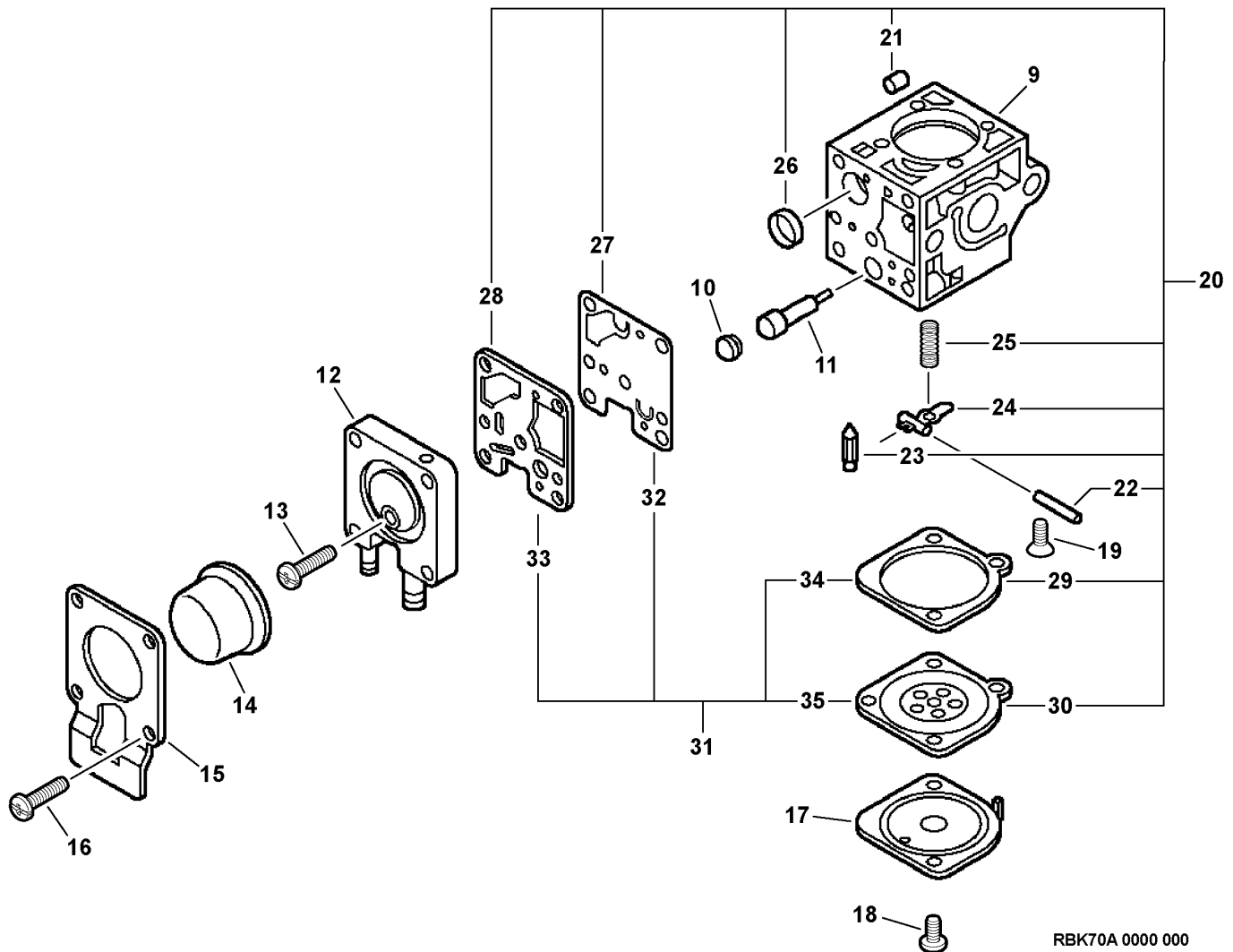
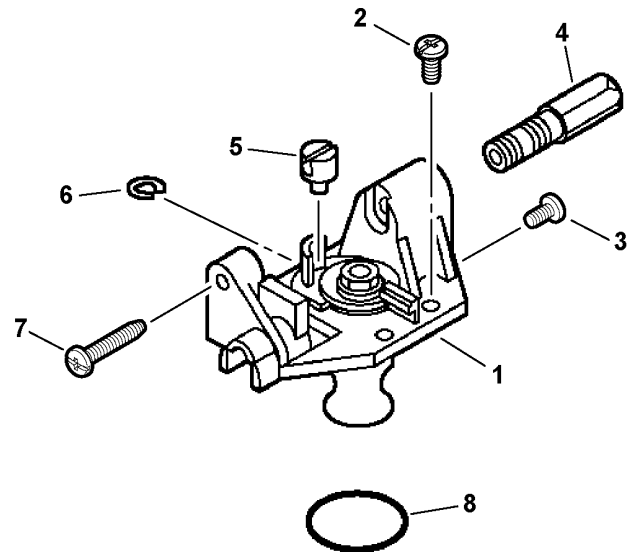
**GASKET KIT**

PPT-230 Power Pruner
Intake

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	P021003900	1	GASKET KIT	
2	21041752730	1	BOLT, WING	
3	13031305863	1	LID, AIR CLEANER -- BLACK	
4	89012152730	1	LABEL - CHOKE	
5	89033252730	1	LABEL - CHOKE	CANADA MODELS
6	13031054130	1	FILTER, AIR	
7	90024205060	2	SCREW 5X60	
8	12901152730	1	PLATE, PREVENT	
9	P021004480	1	CASE, AIR CLEANER -- BLACK	
10	13001013410	1	GASKET, INTAKE ¹	
11	13001756431	1	INSULATOR	
12	90016205025	2	SCREW 5X25	
13	13001055930	1	GASKET, INTAKE ¹	
14	-----	1	CARBURETOR	SEE CARBURETOR DIAGRAMS FOR MODEL APPLICATIONS AND SERIAL NUMBERS

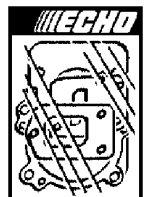
Footnotes

1: Also Included In GASKET KIT

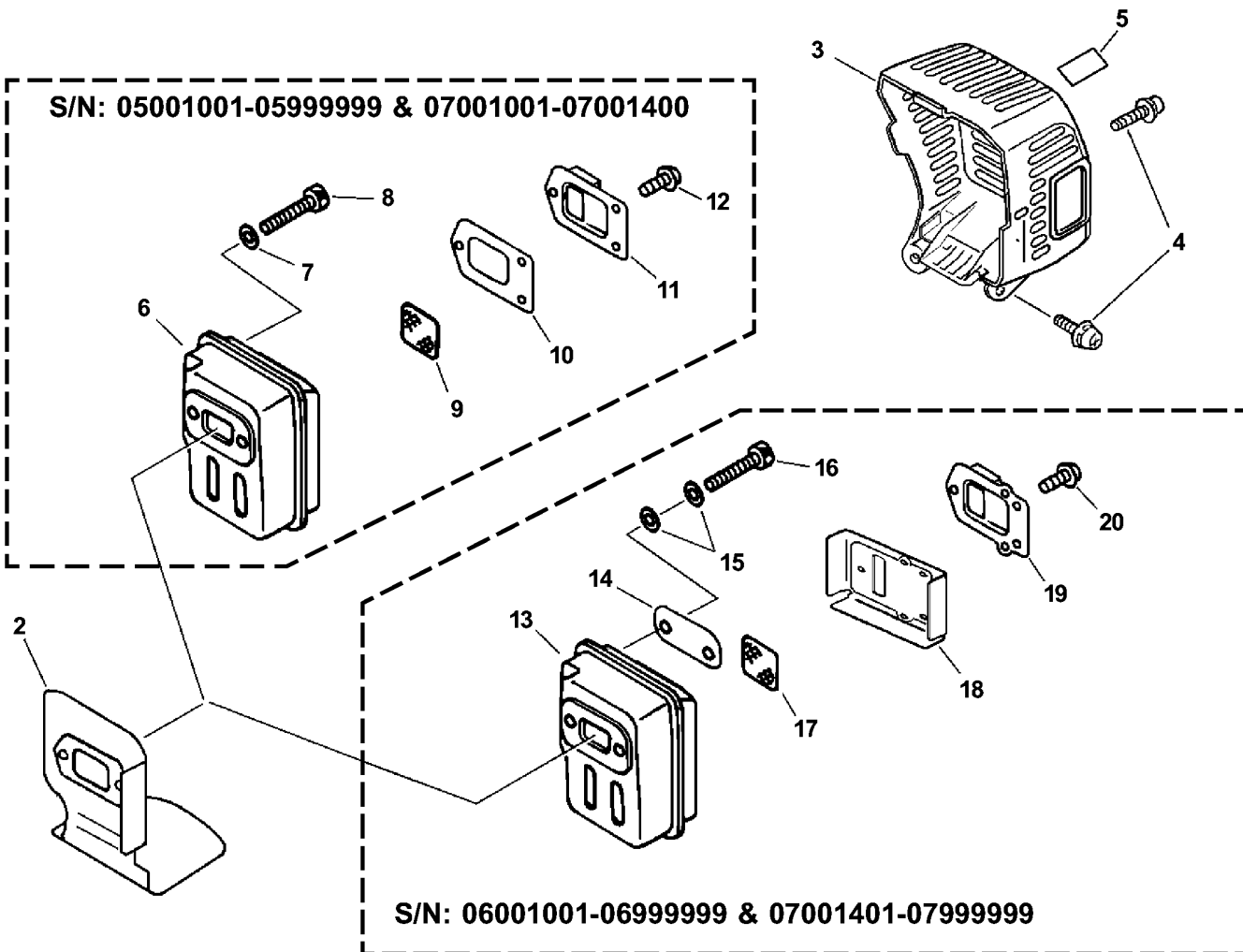


RBK70A 0000 000

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
	A021000721	1	CARBURETOR -- RB-K70A	
1	P005001620	1	ROTOR COVER ASY	
2	12534413931	3	SCREW, ROTOR COVER ASY	
3	12534452130	1	SCREW, ROTOR COVER	
4	P005001330	1	SCREW, CABLE ADJUST	
5	P005001240	1	SWIVEL	
6	P005000190	1	E-RING	
7	P005000100	1	SCREW, THROTTLE ADJUST	
8	P005000280	1	O-RING	
9	-----	1	BODY, CARBURETOR	NOT AVAILABLE SEPARATELY
10	P005001270	1	PLUG	
11	P005001260	1	NEEDLE - HIGH SPEED	
12	P005000930	1	PURGE BASE ASY	
13	P005000270	1	SCREW, PURGE BASE ASY	
14	12538108660	1	BULB, PURGE	
15	P005000250	1	RETAINER, PURGE BULB	
16	12531061830	4	SCREW, PURGE BULB RETAINER	
17	12534252130	1	COVER, DIAPHRAGM	
18	12534452130	3	SCREW, DIAPHRAGM COVER	
19	12533942030	1	SCREW, METERING LEVER PIN	
20	P005000950	1	REPAIR KIT	INCLUDES ITEMS 21-30
21	P005001000	1	ROLLER, GUIDE	
22	-----	1	PIN, METERING LEVER	
23	-----	1	VALVE, INLET NEEDLE	
24	-----	1	LEVER, METERING	
25	-----	1	SPRING, METERING LEVER	
26	-----	1	STRAINER	
27	-----	1	DIAPHRAGM, PUMP	
28	-----	1	GASKET, PUMP	
29	-----	1	GASKET, METERING	
30	-----	1	DIAPHRAGM, METERING	
31	P005000550	1	DIAPHRAGM/GASKET KIT	INCLUDES ITEMS 32-35
32	-----	1	DIAPHRAGM, PUMP	
33	-----	1	GASKET, PUMP	
34	-----	1	GASKET, METERING	
35	-----	1	DIAPHRAGM, METERING	

**GASKET KIT**

1

S/N: 05001001-05999999 & 07001001-07001400**S/N: 06001001-06999999 & 07001401-07999999**

PPT-230 Power Pruner

Exhaust

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	P021003900	1	GASKET KIT	
2	V104000061	1	SHIELD, EXHAUST ¹	
3	A320000002	1	COVER, MUFFLER	
4	90010605012	2	SCREW 5X12	
5	89016006361	1	LABEL - CAUTION -- HOT	
6	14580642030	1	MUFFLER	
7	90060000005	2	WASHER 5	
8	90010505055	2	SCREW 5X55	
9	14586240630	1	SCREEN, MUFFLER	
10	14586642031	1	GASKET, EXHAUST	
11	A313000350	1	GUIDE, EXHAUST	
12	9136704010	3	SCREW 4X10	
13	A300000141	1	MUFFLER	
14	V150000371	1	PLATE, EYE	
15	V347000000	4	WASHER, CONICAL	
16	90010505055	2	SCREW 5X55	
17	14586240630	1	SCREEN, MUFFLER	
18	V104000360	1	GASKET, EXHAUST	
19	A313000130	1	GUIDE, EXHAUST	
20	9136704010	5	SCREW 4X10	

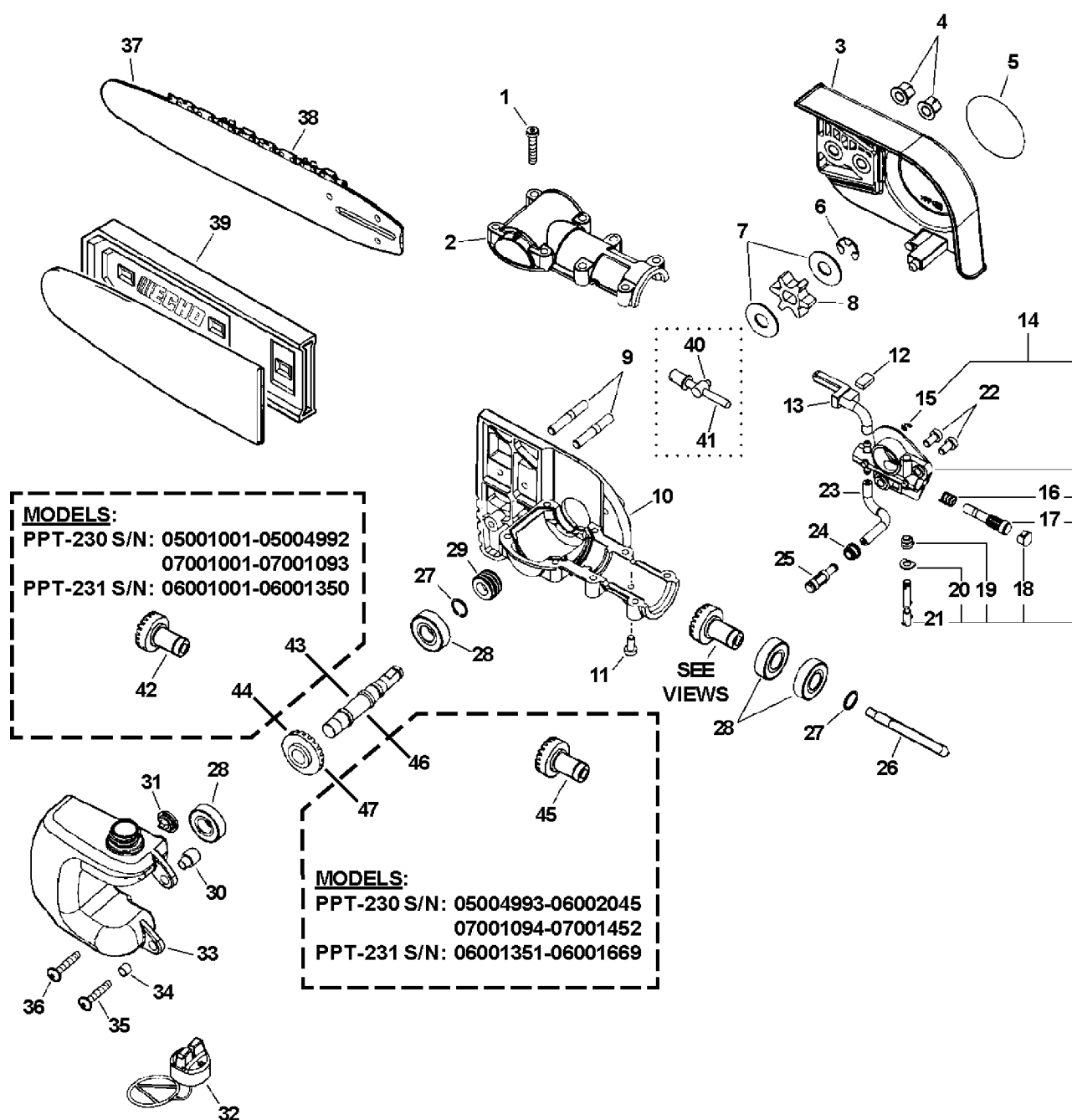
Footnotes

1: Also Included In GASKET KIT

PPT-230 S/N: 05001001-06002045

07001001-07001452

PPT-231 S/N: 06001001-06001669



PPT000300000

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	90010905025	8	SCREW 5X25	
2	C531000030	1	CASE, GEAR - UPPER	
3	C300000001	1	GUARD, SPROCKET	
4	43301903933	2	FLANGE NUT 6	
5	X502000190	1	LABEL, ECHO	
6	V583000010	1	RING, RETAINING	
7	17501439131	2	WASHER	
8	C580000070	1	SPROCKET, DRIVE	
9	V224000000	2	THREADED STUD 6	
10	C051000120	1	CASE, GEAR - LOWER	
11	90010905010	1	SCREW 5X10	
12	43724439130	1	PAD, FORM	
13	V470000180	1	PIPE, OIL OUTLET	
14	43700239130	1	AUTO-OILER ASY	INCLUDES ITEMS 15-21
15	12312715030	1	CIRCLIP	
16	43701938330	1	SPRING	
17	43702437330	1	PLUNGER	
18	43706237330	1	CAP, OIL PUMP	
19	43701537330	1	SPRING	
20	43702937330	1	WASHER	
21	43701639130	1	NEEDLE, ADJUST	
22	90010905010	2	SCREW 5X10	
23	13011014330	1	PIPE, IMPULSE - 3X6X115mm	REPOWER BULK OPTION: 90015
24	13211501461	1	GROMMET, FUEL	
25	43620502832	1	STRAINER, OIL	
26	61002522361	1	CONNECTOR, SHAFT	
27	90070600012	2	CIRCLIP 12	
28	9404206001	4	BEARING BALL	
29	43706338330	1	GEAR, WORM	
30	V354000010	1	COLLAR 6	
31	13131406320	1	VENT ASY	
32	P021000950	1	OIL CAP ASY	
33	C200000000	1	TANK, OIL	
34	13104528230	2	COLLAR	
35	V253000030	2	SCREW 5X16	
36	V253000020	1	SCREW 5X28	
37	1102373901	1	GUIDE BAR - 10" -- Intenz ¹	GAUGE: .050"
38	1917039	1	SAWING CHAIN (91VS) - 10" -- Low Profile ¹	GAUGE: .050"
39	X490000060	1	COVER, GUIDE BAR	
40	43301403931	1	TENSIONER ²	
41	43301639131	1	SCREW, ADJUSTMENT ²	
42	V651000042	1	GEAR, BEVEL	USE GEAR & SHAFT KIT P021009710
43	C534000020	1	SHAFT, GEAR	USE GEAR & SHAFT KIT P021009710
44	61031122061	1	GEAR, BEVEL	USE GEAR & SHAFT KIT P021009710
45	V651000042	1	GEAR, BEVEL	USE GEAR KIT P021009720
46	C534000180	1	SHAFT, GEAR	
47	V651000111	1	GEAR, BEVEL	USE GEAR KIT P021009720

Footnotes

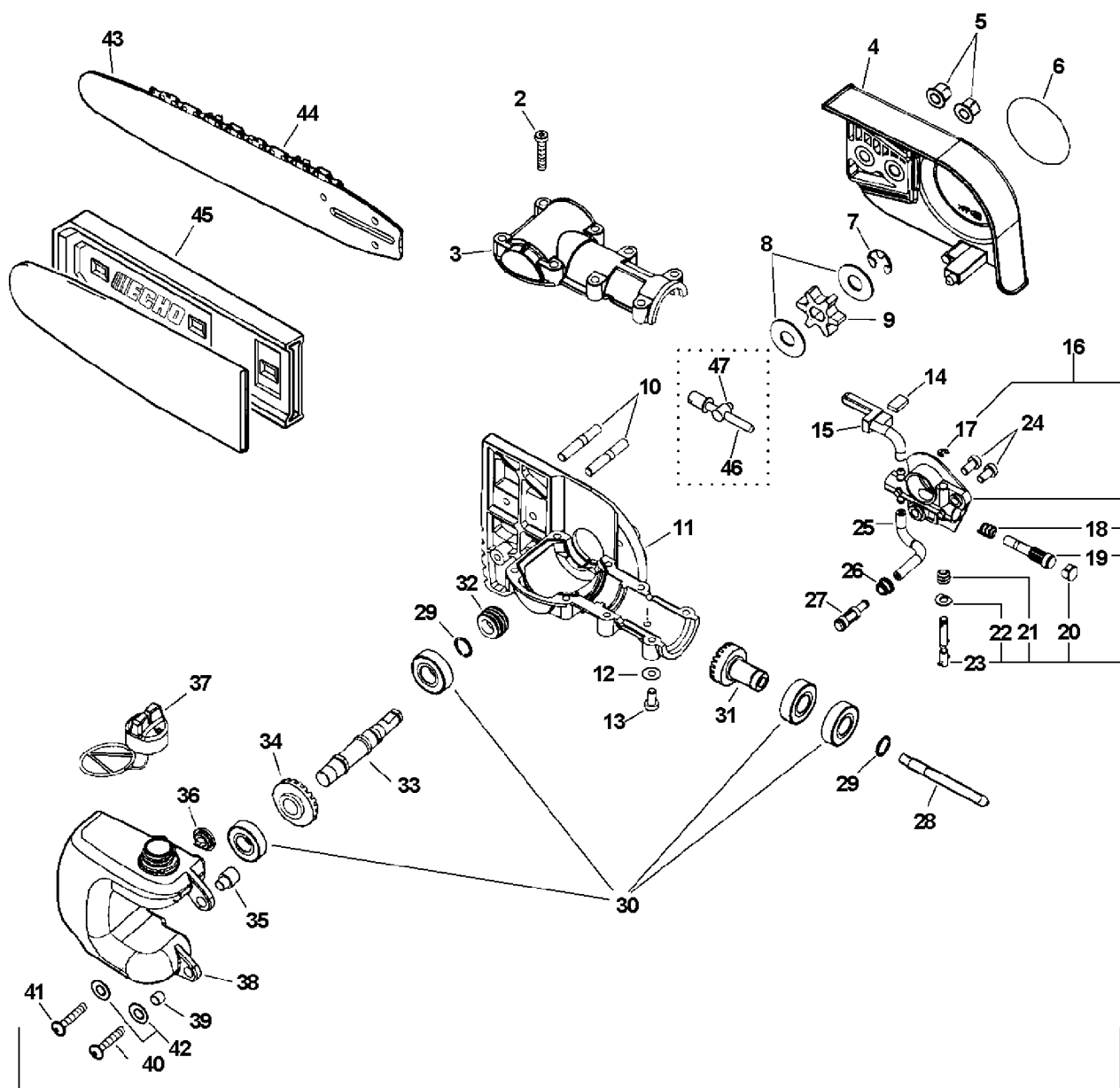
1: .043" & .050" Gauge Chains & Guide Bars are NOT Interchangeable

2: For Use With Standard Guide Bar (INTENZ Guide Bar Not Used)

PPT-230 S/N: 06002046-06999999

07001453-07999999

PPT-231 S/N: 06001670-06999999



ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	90093	1	OILER/GEAR CASE ASY	INCLUDES ITEMS 2-41
2	90010905025	8	SCREW 5X25	
3	C531000030	1	CASE, GEAR - UPPER	
4	C300000001	1	GUARD, SPROCKET	
5	43301903933	2	FLANGE NUT 6	
6	89011849130	1	LABEL, ECHO	
7	V583000010	1	RING, RETAINING	
8	17501439130	2	WASHER, CLUTCH	
9	C580000070	1	SPROCKET, DRIVE	
10	V224000000	2	THREADED STUD 6	
11	C051000120	1	CASE, GEAR - LOWER	
12	90060000005	1	WASHER	
13	90010905010	1	SCREW 5X10	
14	43724439130	1	PAD, FORM	
15	V470000180	1	PIPE, OIL OUTLET	
16	43700239130	1	AUTO-OILER ASY	INCLUDES ITEMS 17-23
17	12312715030	1	CIRCLIP	
18	43701938330	1	SPRING	
19	43702437330	1	PLUNGER	
20	43706237330	1	CAP, OIL PUMP	
21	43701537330	1	SPRING	
22	43702937330	1	WASHER	
23	43701639130	1	NEEDLE, ADJUST	
24	90010905010	2	SCREW 5X10	
25	13011014330	1	PIPE, IMPULSE - 3X6X115mm	REPOWER BULK OPTION: 90015
26	13211501461	1	GROMMET, FUEL	
27	43620502832	1	STRAINER, OIL	
28	61002522360	1	CONNECTOR, SHAFT	
29	90070600012	2	CIRCLIP 12	
30	9404206001	4	BEARING BALL	
31	V651000210	1	GEAR, BEVEL	
32	43706338330	1	GEAR, WORM	
33	C534000180	1	SHAFT, GEAR	
34	V651000200	1	GEAR, BEVEL	
35	V354000010	1	COLLAR 6	
36	13131406320	1	VENT ASY	
37	P021000950	1	OIL CAP ASY	
38	C200000000	1	TANK, OIL	
39	13104528230	2	COLLAR	
40	9110905016	2	SCREW 5X16	
41	90010905025	1	SCREW 5X25	
42	90060300005	3	WASHER	
43	1102373901	1	GUIDE BAR - 10" -- Intenz ¹	GAUGE: .050"
44	1917039	1	SAWING CHAIN (91VS) - 10" -- Low Profile ¹	GAUGE: .050"
45	X490000060	1	COVER, GUIDE BAR	
46	43301639131	1	SCREW, ADJUSMENT ²	
47	43301403931	1	TENSIONER ²	

Footnotes

1: .043" & .050" Gauge Chains & Guide Bars are NOT Interchangeable

2: For Use With Standard Guide Bar (INTENZ Guide Bar Not Used)

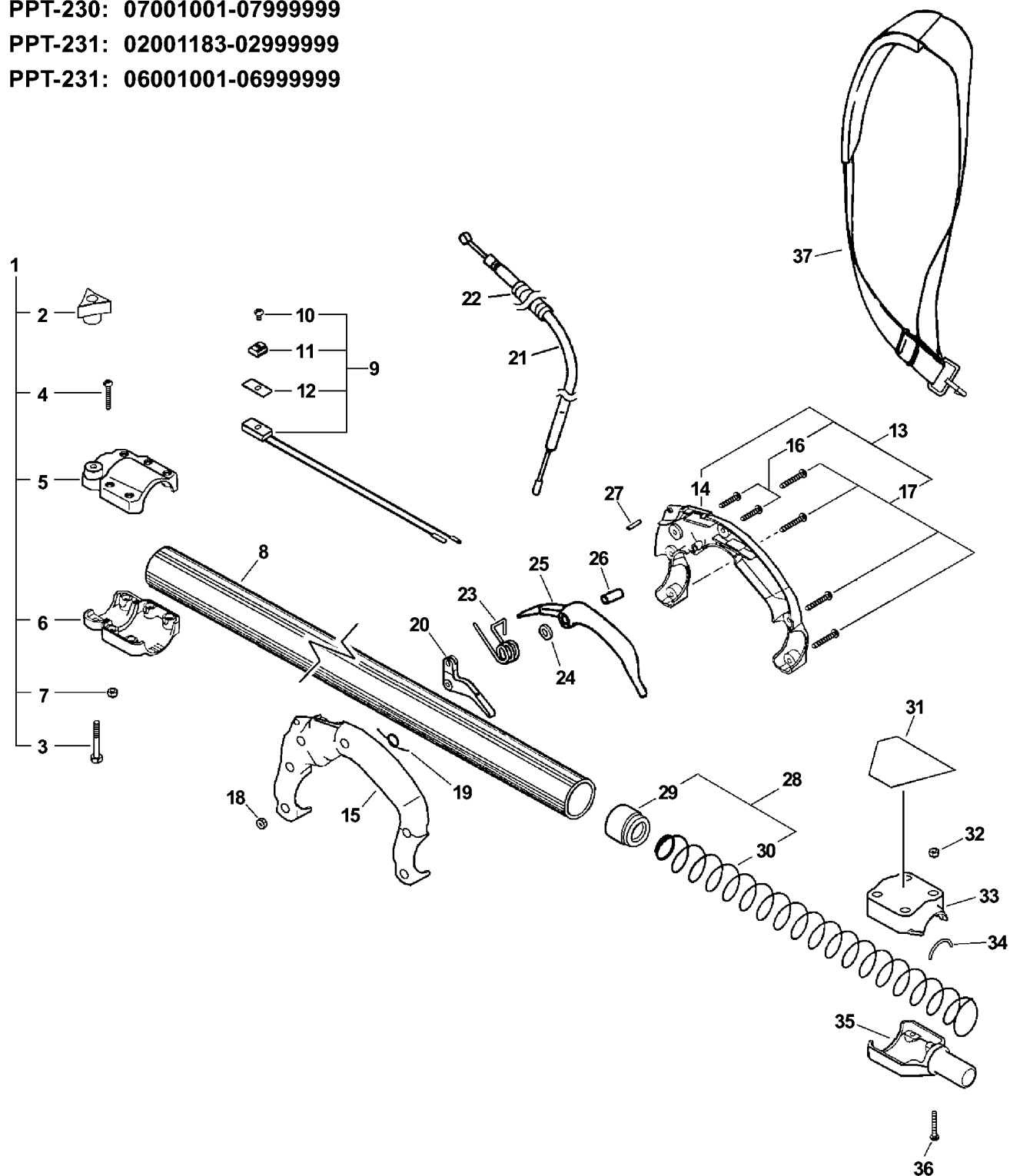
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PPT-231: 02001183-02999999

PPT-231: 06001001-06999999

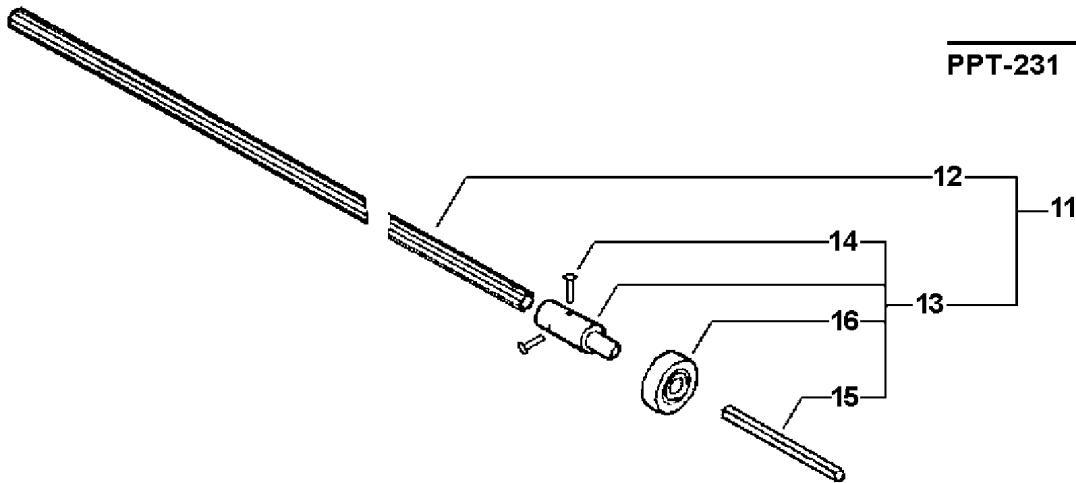


PPT-230 Power Pruner

Main Pipe, Throttle Cable, Stop Switch

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	61029522360	1	CLAMP ASY	INCLUDES ITEMS 2-7
2	13040622360	1	KNOB, FASTNER	INCLUDES ITEM 3
3	V204000090	1	SCREW	
4	90005300400	5	SCREW	
5	61028222460	1	COLLAR, MAIN PIPE - UPPER	
6	61028222360	1	COLLAR, MAIN PIPE - LOWER	
7	90003150100	5	LOCKNUT	
8	61022224660	1	PIPE, MAIN - ORANGE	
9	A440000280	1	IGNITION SWITCH ASY	INCLUDES ITEMS 10-12
10	9154503010	1	SCREW 3X10	
11	16341049231	1	KNOB, SWITCH -- ORANGE	
12	89015712330	1	COVER, SWITCH	
13	35110022362	1	REAR HANDLE ASY	INCLUDES ITEMS 14-18
14	C410000090	1	HANDLE, REAR - LEFT	
15	35111022562	1	HANDLE, REAR - RIGHT	
16	90005300400	2	SCREW	
17	90005300500	4	SCREW	
18	90003150100	6	LOCKNUT	
19	17804322360	1	SPRING, THROTTLE TRIGGER	
20	17801022560	1	TRIGGER, THROTTLE	
21	V430000720	1	CABLE, THROTTLE	
22	V475001290	1	COVER - CORRUGATED	
23	17804322562	1	SPRING, THROTTLE TRIGGER LOCKOUT	
24	90060300005	1	WASHER	
25	17809022560	1	LOCKOUT, THROTTLE CONTROL	
26	61085022560	1	COLLAR 5	
27	88996022660	1	STRAIGHT PIN 3	
28	43330722460	1	FLOATING BUSHING ASY	INCLUDES ITEMS 29-30
29	43334522660	1	BUSHING, FLOATING	
30	10494022560	1	SPRING, FLOATING BUSHING	
31	89016022660	1	LABEL - CAUTION	
32	90003150100	4	LOCKNUT	
33	C525000000	1	CAP, LOWER SHAFT TUBE ADAPTER	
34	10491022460	1	O-RING(HALF)	
35	C510000060	1	ADAPTER, LOWER SHAFT TUBE	
36	90005300500	4	SCREW	
37	30100022060	1	SHOULDER HARNESS ASY	

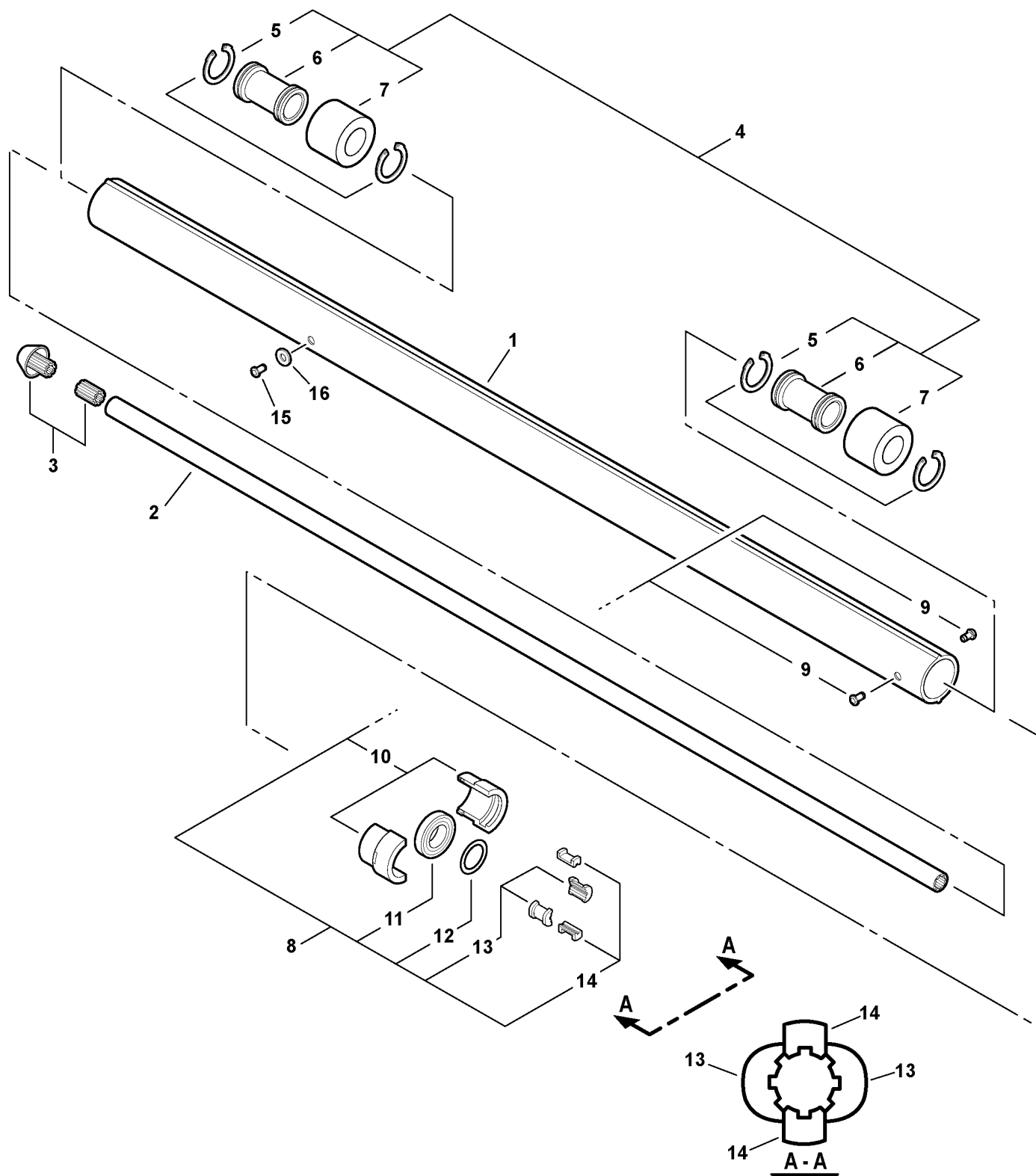
PPT-230 S/N: 05010283-05999999
06001001-06999999
07001311-07999999
PPT-231 S/N: 06001632-06999999



PPT0009 00 000

PPT-230 Power Pruner**Driveshaft, Connector**

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
11	P021006861	1	DRIVESHAFT ASY	INCLUDES ITEMS 12-17
12	C504000260	1	DRIVESHAFT	
13	P021006331	1	SHAFT CONNECTOR KIT	INCLUDES ITEM 14-16
14	V620000000	2	PIN	
15	C517000040	1	SHAFT	
16	90080206002	1	BEARING, BALL	



073 0002 000

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	61021022361	1	SHAFT, UPPER - BLACK	
2	61001122360	1	DRIVESHAFT - UPPER	
3	61029822360	1	ADAPTER, DRIVESHAFT - UPPER	
4	43330822360	2	UPPER DRIVESHAFT GUIDE ASY	INCLUDES ITEMS 5-7 (SEE SB 05-01)
5	61033522460	4	RING, RETAINING	
6	43334522361	2	GUIDE, SHAFT	
7	10429322360	2	PAD, FOAM	
8	61010522360	1	BEARING HOLDER ASY	INCLUDES ITEMS 9-14
9	89001122360	2	RIVET, STEEL	
10	61011122360	2	HOLDER, BEARING	
11	90080206002	1	BEARING, BALL	
12	17812922360	1	WASHER, WAVE	
13	43334522560	2	HOLDER, INNER BEARING - LARGE	
14	43334522460	2	HOLDER, INNER BEARING - SMALL	
15	89001122460	1	RIVET, ALUMINUM	
16	40011122360	1	WASHER 5	

RePower Tune-Up Kit	Contains:	Service Number	Description
90074		13031054130	AIR FILTER
		13120507320	FUEL FILTER
		15901019830	SPARK PLUG BPM-8Y

ITEM	PART NUMBER	QTY	DESCRIPTION	REMARKS
1	90074	1	TUNE-UP KIT	



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