



ILLUSTRATED PARTS BOOK

196cc Rear Tine Tiller

MODEL#: P-RTT-196MD-[E]

MODEL#: P-RTT-196MD



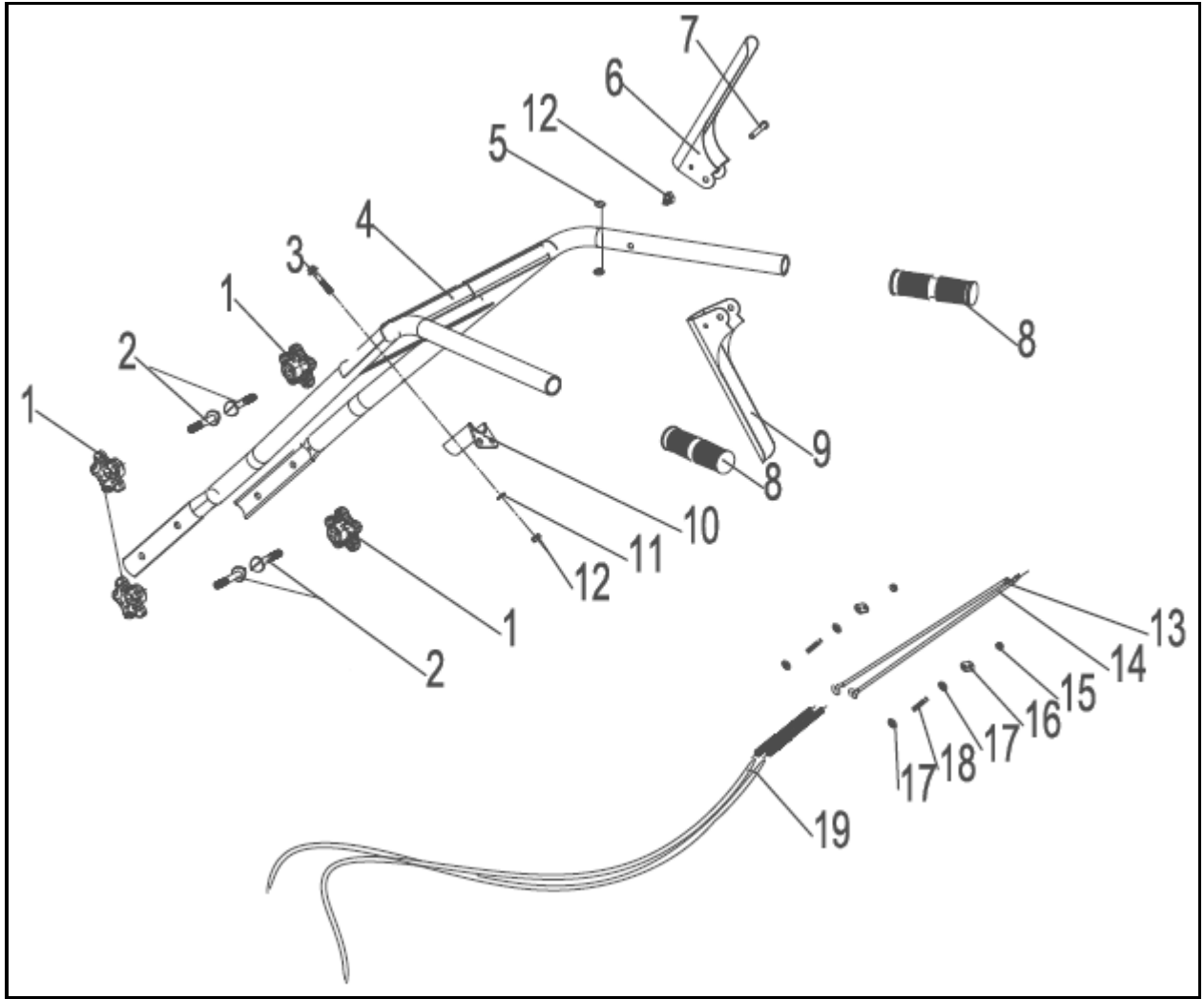
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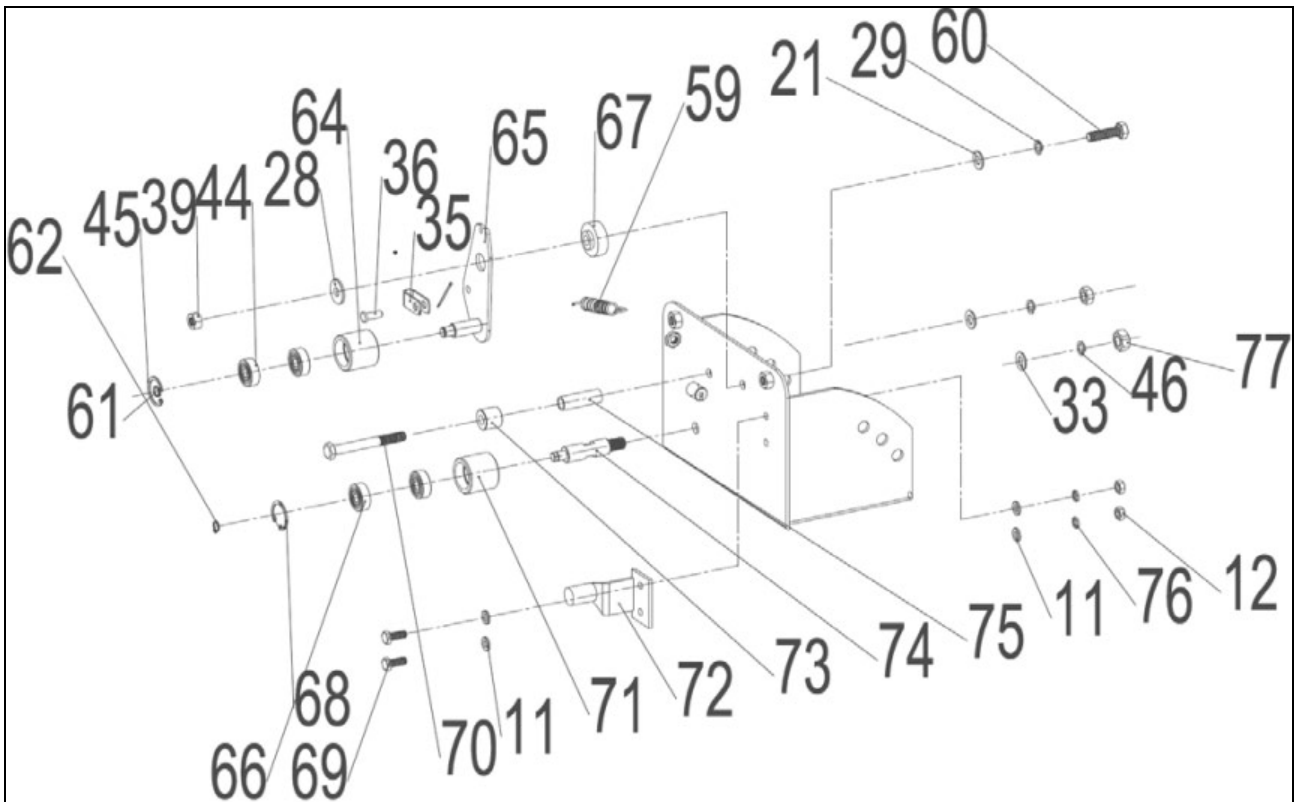
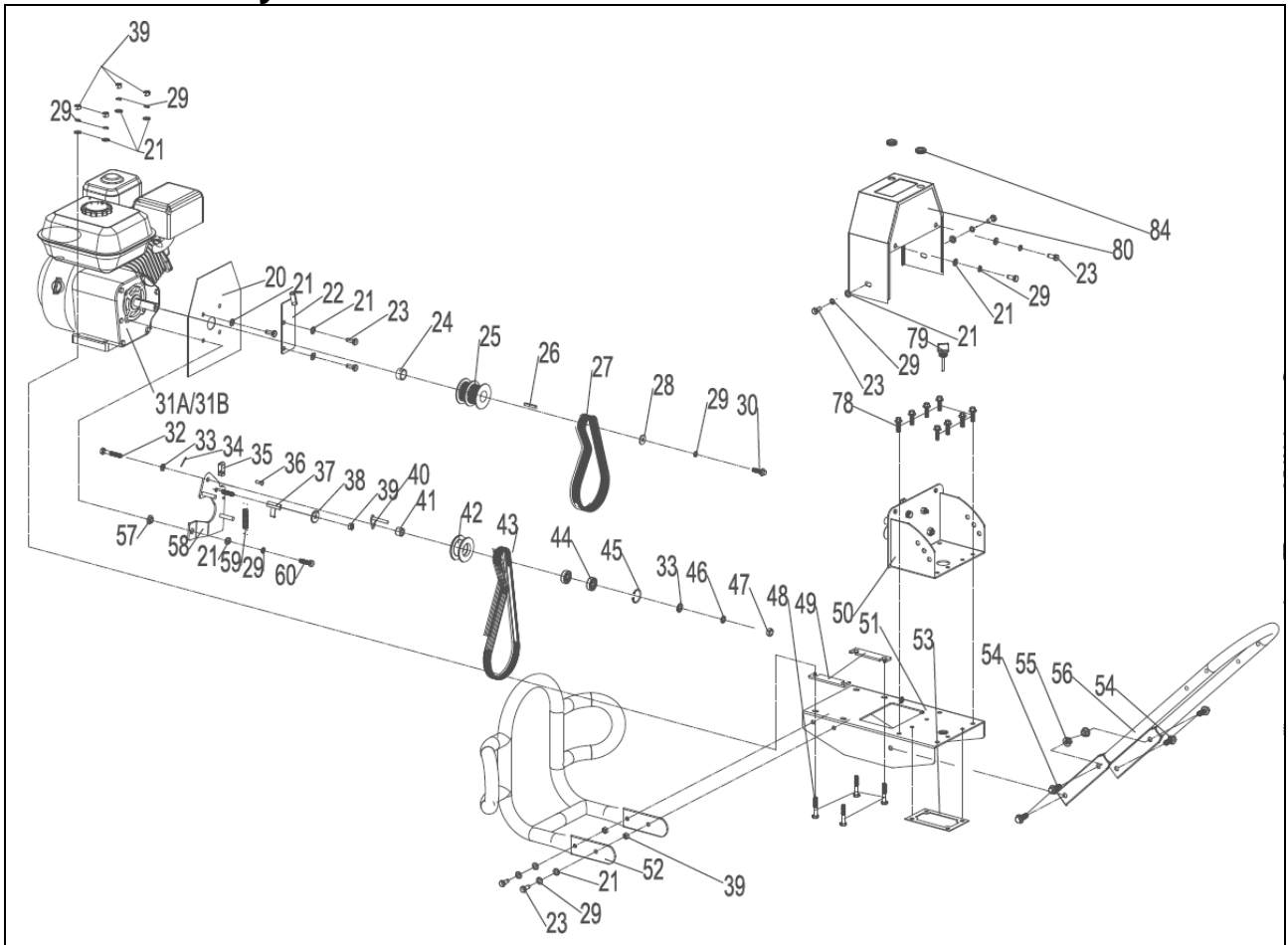
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Upper Handle Assembly



Base Assembly



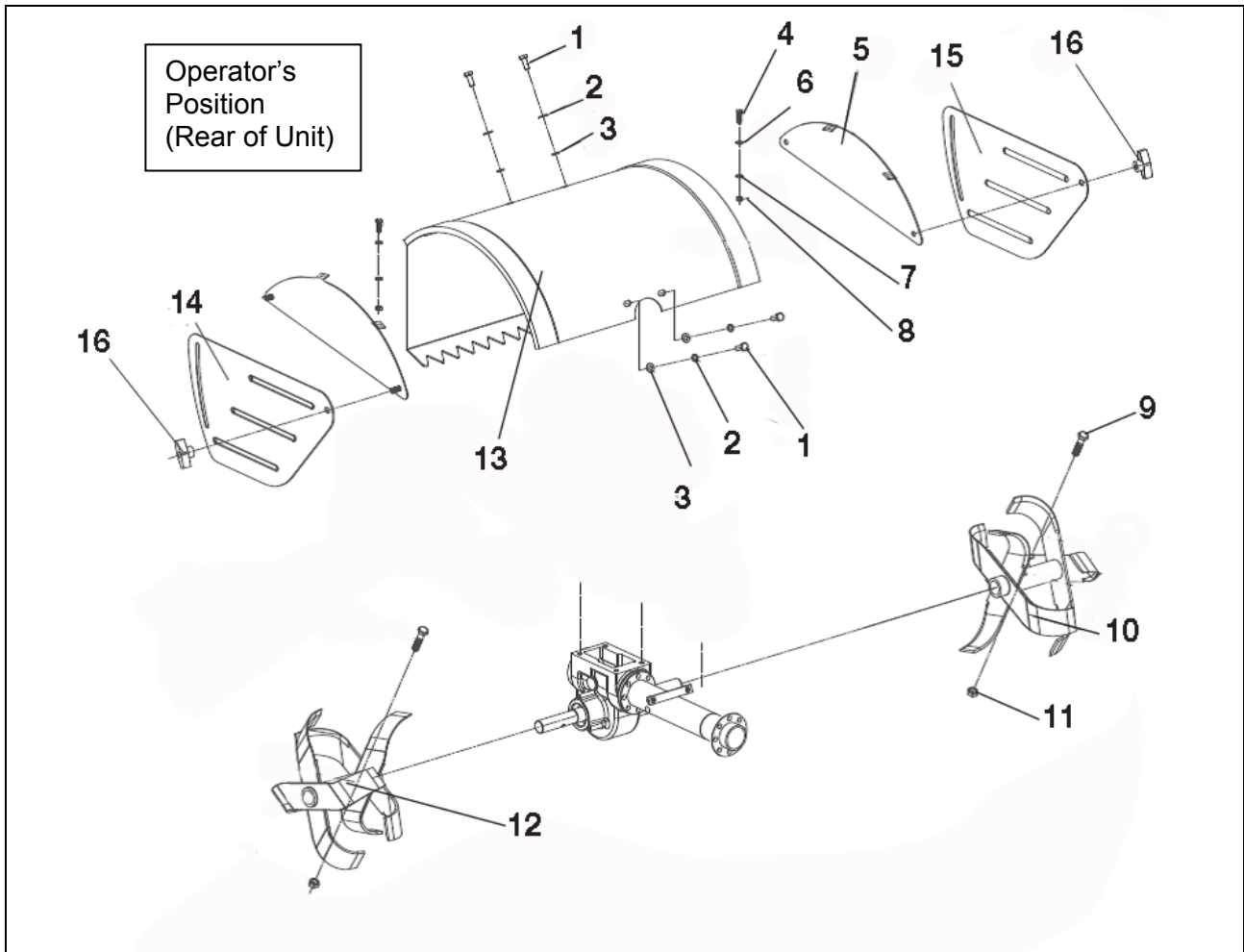
Parts List

REF. NO.	DESCRIPTION	PART NO.	RQD
1	Handle Bar Knob	A200486	4
2	Handle Bar Screw	A200487	4
3	Hex Flange Bolt, M6x45	A200488	1
4	Upper Handle	A200489	1
5	Rubber bushing, Clutch Lever	A200490	2
6	Clutch Lever, Forward	A200491	1
7	Bolt, M6X55	A200492	1
8	Handle Grip	A200493	2
9	Clutch Lever, Reverse	A200494	1
10	Handle Mounting Bracket, Clutch Cable	A200495	1
11	Flat Washer, M6	A200496	14
12	Locknut, M6	A200497	7
13	Clutch Rod, Reverse	A200498	1
14	Clutch Rod, Forward	A200499	1
15	Locknut, M5	A200500	2
16	Bracket, Clutch Rod	A200501	2
17	Flat Washer, M5	A200502	4
18	Spring, Clutch Rod	A200503	2
19	Clutch Cable	A200504	2
20	Mounting Plate, Belt Cover - Powermate	A200505	1
21	Flat washer, M8*	A200506	29
22	Belt Mounting Plate, Reverse cable	A200507	1
23	Bolt, M8X20	A200508	13
24	Shaft Bushing, Forward Pulley	A200509	1
25	Forward Drive Pulley	A200510	1
26	Flat Key, 4.78X5X35	A200511	1
27	Forward Drive Belt 7PK597	A200512	1
28	Flat Washer, M8X22X2	A200513	4
29	Spring washer, M8	A200514	27
30	Hex Bolt, 5/16-24	A200515	1
31A	EPA Gasoline Engine, Loncin 196cc Horizontal	A200516	1
31B	CARB Gasoline Engine, Loncin 196cc Horizontal	A200618	1
32	Hex Bolt, M10X50	A200517	1
33	Flat Washer, M10	A200518	4
34	Pin ϕ 1.5X20	A200519	2
35	Cable Clip	A200520	2
36	Pin ϕ 6X16	A200521	2
37	Shaft Bushing 1	A200522	1
38	Flat Washer M8X28X3	A200523	1
39	Hex Nut, M8	A200524	9

Parts List (Continued)

REF. NO.	DESCRIPTION	PART NO.	RQD
40	Top Belt Guide, Reverse Belt	A200525	1
41	Bushing, Reverse Tensioner	A200526	1
42	Pulley, Reverse Tensioner	A200527	1
43	Reverse Drive Belt, 5PK740	A200528	1
44	Ball Bearing 6200	A200529	4
45	Circlip 30	A200530	1
46	Spring Washer, M10	A200531	4
47	Hex Nut, M10	A200532	1
48	Hex Bolt, M8X45	A200533	4
49	Spacer, Engine Mounting	A200534	1
50	Handle Mounting Frame - Powermate	A200535	1
51	Engine Mounting Frame - Powermate	A200536	1
52	Front Carry Handle	A200537	1
53	Gasket, Transmission	A200538	2
54	Hex Flange Bolt, M10x25	A200539	4
55	Hex Flange Nut, M10	A200540	2
56	Lower Handle	A200541	1
57	Shaft Bushing, Reverse	A200542	1
58	Mounting Bracket, Reverse Tensioner	A200543	1
59	Spring, Reverse	A200544	2
60	Hex Bolt, M8X30	A200545	2
61	Circlip 10	A200546	1
62	Circlip 8	A200547	1
64	Pulley, Forward Tensioner	A200549	1
65	Clutch Arm	A200550	1
66	Ball Bearing 628	A200551	2
67	Shaft Bushing, Tensioner	A200552	1
68	Circlip 24	A200553	1
69	Hex Bolt, M6X16	A200554	2
70	Hex Bolt, M8X70	<i>Reference Only</i>	1
71	Tensioner, Forward	A200556	1
72	Belt Guide, Reverse Belt	A200557	1
73	Bushing 2	A200558	1
74	Shaft, Forward Tensioner	A200559	1
75	Bushing 3	A200560	1
76	Spring Washer, M6	<i>Reference Only</i>	5
77	Locknut, M10	A200562	3
78	Hex Flange Bolt, M8x25	A200563	8
79	Transmission Oil Dipstick	A200564	1
80	Belt Cover	A200565	1

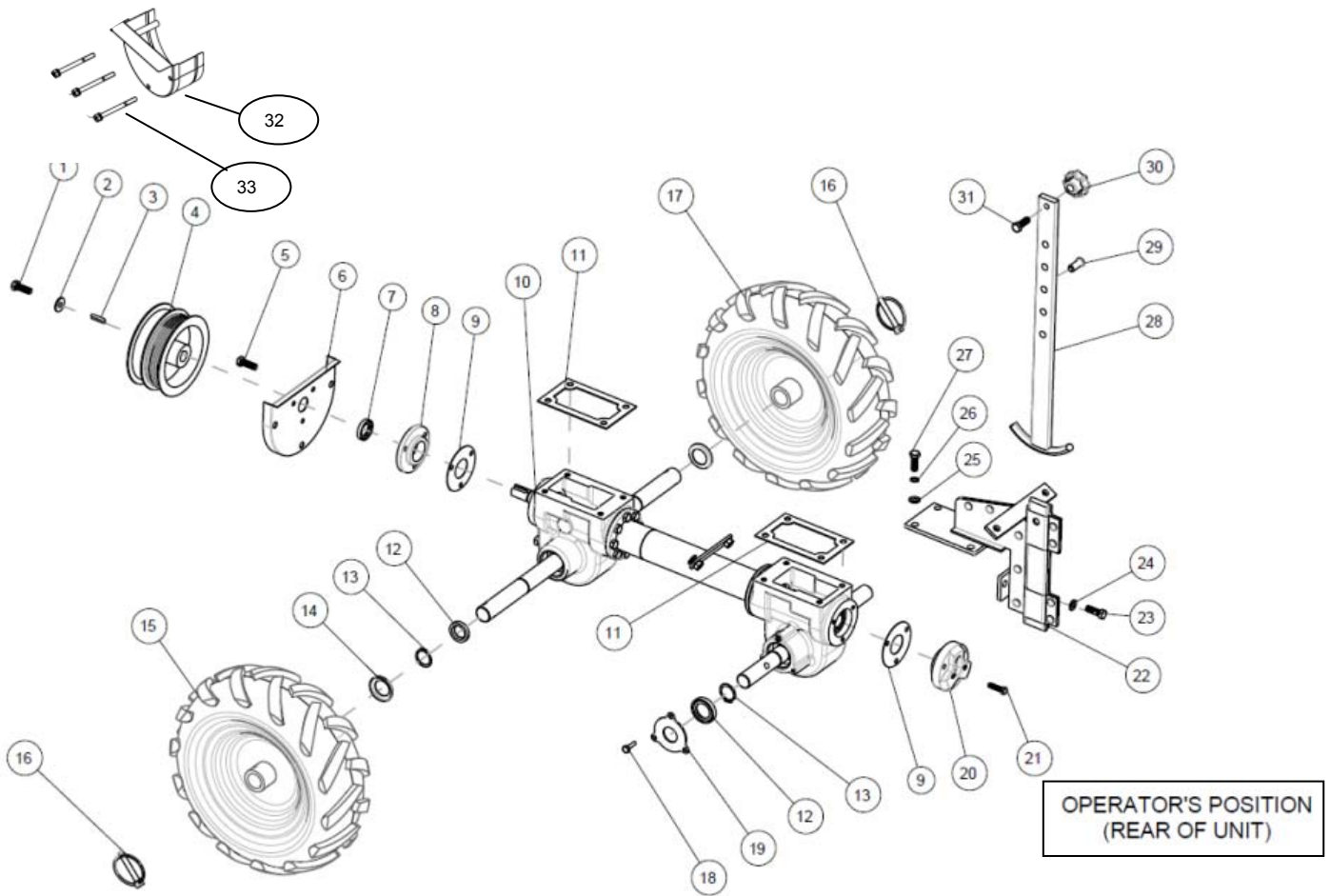
Tines & Tine Shield



Tines & Tine Shield

REF. NO.	DESCRIPTION	PART NO.	RQD
1	Screw, M8x1.25x20, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	4
2	Lock Washer, M8, Zinc	<i>Reference Only</i>	4
3	Flat Washer, M8, Zinc	<i>Reference Only</i>	4
4	Screw, M6x1.0x25, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	4
5	Tine Shield, Stationary - Powermate	A200571	2
6	Flat Washer, M6, Zinc	<i>Reference Only</i>	4
7	Lock Washer, M6, Zinc	<i>Reference Only</i>	4
8	Hex Nut, M6x1.0, Zinc, Grade 8	<i>Reference Only</i>	4
9	Screw, M10x1.5x50, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	2
10	Tines, Left (Determined from Operator's Position)	A200580	1
11	Hex Nut, M10x1.5, Zinc, Grade 8	<i>Reference Only</i>	2
12	Tines, Right (Determined from Operator's Position)	A200579	1
13	Tine Shield, Main - Powermate	A200572	1
14	Rotational Tine Shield Right-Powermate	A200566	1
15	Rotational Tine Shield, Left -Powermate	A200570	1
16	Knob, Tine Shield	A200548	4

Transmission



Transmission

REF. NO.	DESCRIPTION	PART NO.	RQD
1	Screw, M8x1.25x25, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	1
2	Flat Washer, M8, Zinc	<i>Reference Only</i>	1
3	Key, Flat – 5x5x25	A200586	1
4	Pulley, Transmission	A200587	1
5	Screw, M6x1.0x25, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	3
6	Belt Cover, Lower Stationary – Powermate	A200589	1
7	Oil Seal, Transmission – 19x32x7	A200591	1
8	Transmission Cover, Front	<i>Reference Only</i>	1
9	Gasket 2, Transmission	A200592	2
10	Kit, Transmission Assembly	A201911	1
11	Gearbox Gasket, Transmission	A200538	2
12	Oil Seal, Transmission – 25x40x7	A200601	4
13	C-Clip, 25	A200599	4
14	Shaft Spacer, Wheel	A200598	2
15	Tire Assembly, 13"-Left (Determined from Operator's Position)	A200597	1
16	Lock Pin, Wheel	A200596	2
17	Tire Assembly, 13"-Right (Determined from Operator's Position)	A200809	1
18	Screw, M6x1.0x16, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	12
19	Seal Cap, Transmission	A200607	4
20	Rear Cover, Transmission	A200613	1
21	Screw, M6x1.0x25, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	3
22	Mounting Frame, Drag Bar	A200574	1
23	Screw, M8x1.25x20, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	2
24	Flat Washer, M8, Zinc	<i>Reference Only</i>	2
25	Flat Washer, M8, Zinc	<i>Reference Only</i>	4
26	Lock Washer, M8, Zinc	<i>Reference Only</i>	4
27	Screw, M8x1.25x25, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	4
28	Drag Bar	A200576	1
29	Pin, Drag Bar	A200577	1
30	Handle Knob, Drag Bar	A200575	1
31	Screw, M8x1.25x30, Hex Head, Zinc, Grade 8.8	<i>Reference Only</i>	1
32	Belt Cover, Lower Front-Powermate	A200584	1
33	Screw, M8x1.25x90, Hex Head, Zinc, Grade 8.8	A200583	3
34	Inner Tube, 13x5.00-6 (not shown)	A201896	1

Warning and Safe Operation Labels

1

⚠ WARNING

TO AVOID SERIOUS INJURY

- Read the Operator's Manual.
- Know location and functions of all controls.
- Keep all safety devices and shields in place and working.
- Never allow children or un instructed adults to operate machine.
- Shut off engine before manually unclogging tines or making repairs.
- Keep bystanders away from machine.
- Keep away from rotating parts while engine is running.
- Use extreme caution when reversing/pulling the machine towards you.
- Gasoline is flammable and explosive.

2

⚠ DANGER

KEEP HANDS, FEET AND CLOTHING AWAY FROM ROTATING TINES.

CONTACT WITH ROTATING TINES MAY RESULT IN SERIOUS INJURY.

3

⚠ WARNING

Do not start engine unless all belt covers are attached. Keep hands, feet, and clothing away from moving belts and pulleys. Failure to comply could result in injury. See operator's manual for full safety instructions.

4

⚠ WARNING

FOR OUTDOOR USE ONLY

RISK OF FIRE. DO NOT ADD FUEL WHEN PRODUCT IS OPERATING. ALLOW ENGINE TO COOL COMPLETELY BEFORE REFUELING.

RISK OF ASPHYXIA/TION. USE THIS PRODUCT ONLY IN A WELL VENTILATED AREA.

5

⚠ WARNING

Refer to the Troubleshooting and Belt Tension Adjustment sections of the Operator's Manual if tines continue to rotate when the clutch lever is released or do not rotate when the clutch lever is depressed.

FOR SERVICE

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6

7

CLUTCH CONTROL

DISENGAGE

ENGAGE

8

PLACE FREE HAND ON HANDLE BAR WHEN STARTING ENGINE

9

ENGINE START-UP INSTRUCTIONS

1. Insert the locking pin to secure the wheels in locked position.
2. Turn the Engine Switch to the "on" position.
3. Open the Fuel Valve.
4. Close the Choke Lever.
5. Adjust the Throttle Control to the high speed.
6. Pull the Starter Handle until engine starts.
7. After starting the engine, open the Choke Lever.

10

FORWARD

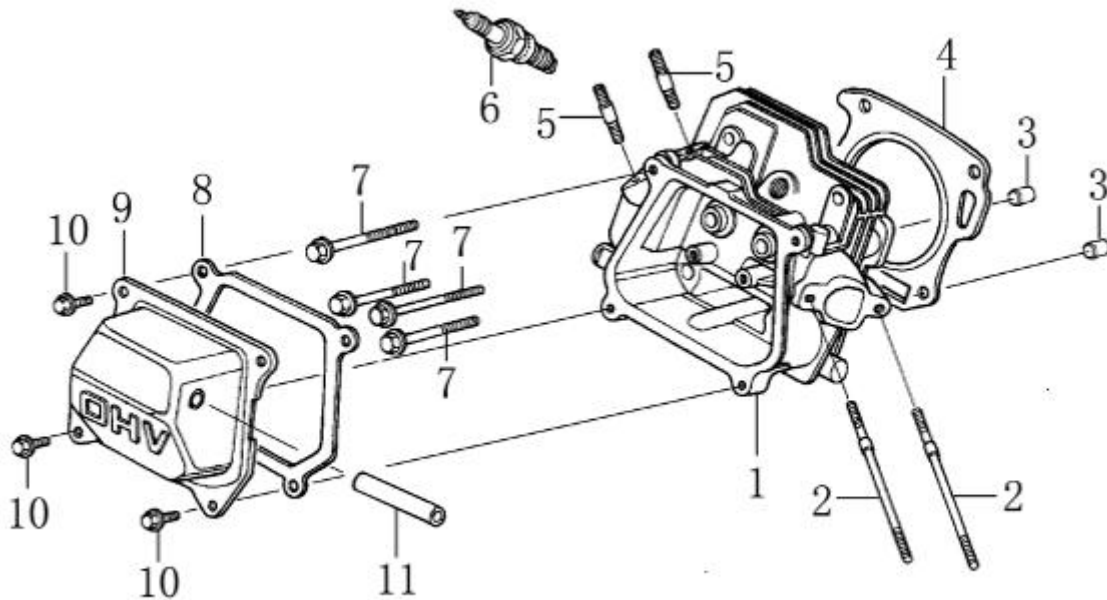
11

REVERSE

Warning and Safe Operation Labels – Cont.

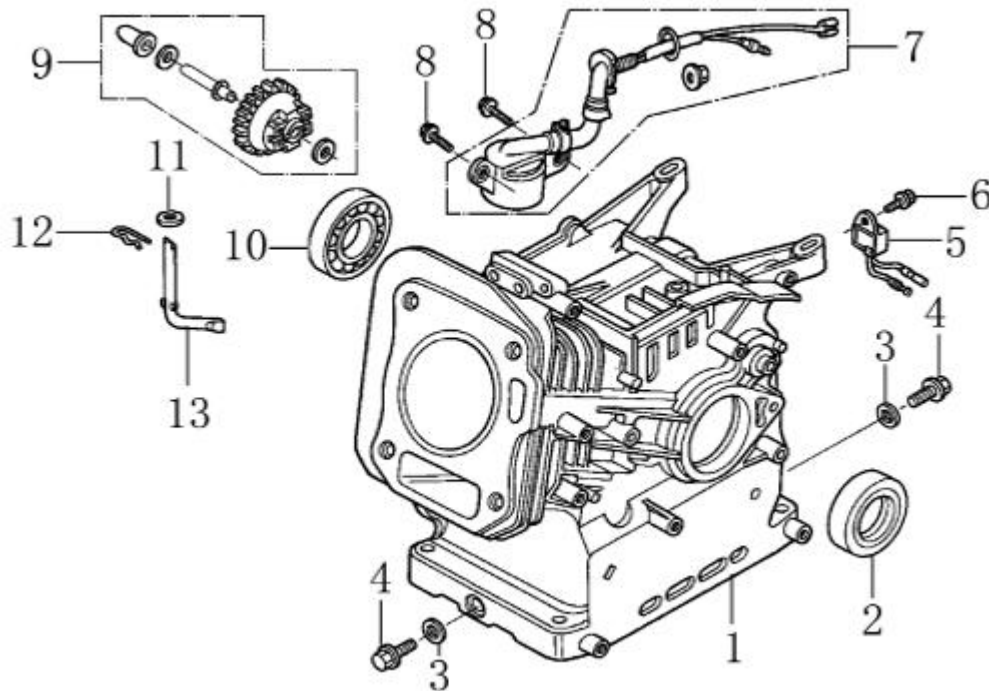
REF. NO.	DESCRIPTION	PART NO.	QTY
1	Decal, Safe Operation Warning	A201885	1
2	Decal, Rotating Tines Warning	A201886	1
3	Decal, Belt Covers Warning	A201747	1
4	Decal, Outdoor Use Only Warning	A201758	1
5	Decal, Belt Tension Adjustment Warning	A201738	1
6	Decal, Hot Surface Warning	A201755	1
7	Decal, Clutch Control	A200947	1
8	Decal, Hand Placement While Starting	A200945	1
9	Decal, Engine Starting Instructions	A201887	1
10	Decal, Forward Clutch Lever	A201888	1
11	Decal, Reverse Clutch Lever	A201889	1
12	Kit, Warning and Safe Operation Decal (# 1-11)	A201871	1

Cylinder Head



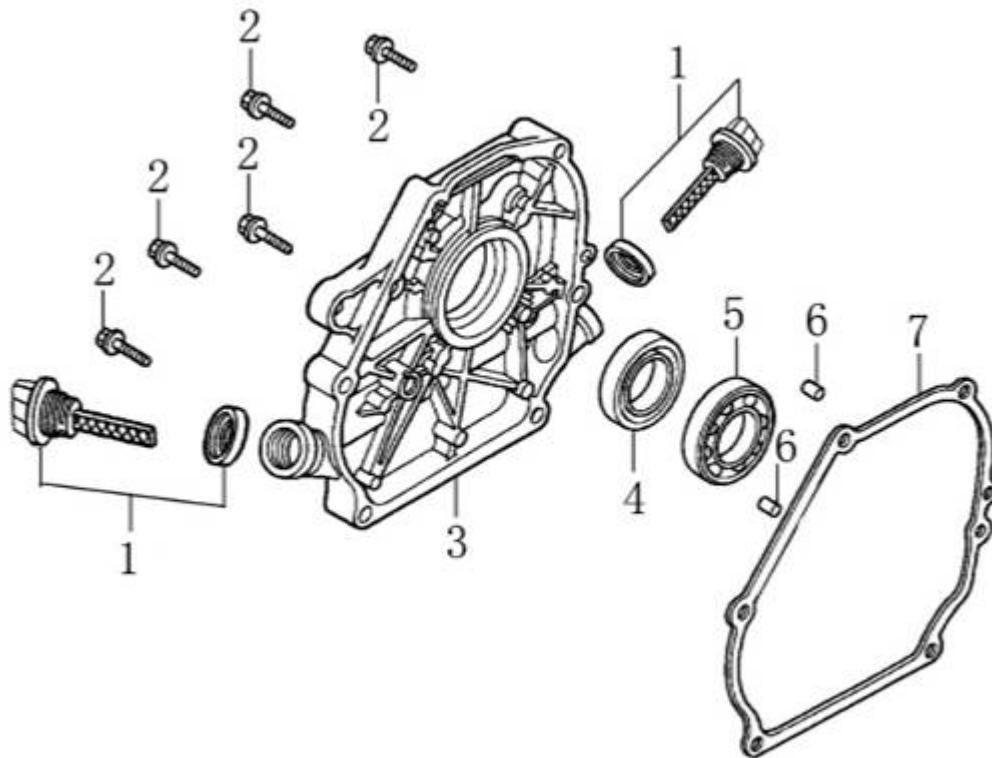
REF. NO.	DESCRIPTION	PART NO.	RQD
1A	Cylinder Head – EPA	A201407	1
1B	Cylinder Head – CARB	A201938	1
2	Stud, Threaded – 1	A201408	2
3	Pin, Dowel, Dia. 10X14	A201409	2
4	Gasket, Cylinder	A201410	1
5	Stud, Threaded – 2	A201411	2
6	Plug, Spark, F7TC	A201233	1
7	Flange Bolt, Cylinder Head M8 x 60mm	A201412	4
8	Gasket, Valve Cover	A201413	1
9	Cover, Cylinder Head	A201414	1
10	Flange Bolt, Cylinder Head, M6 x 14mm	A201415	4
11	Tube, Breather	A201416	1

Crankcase



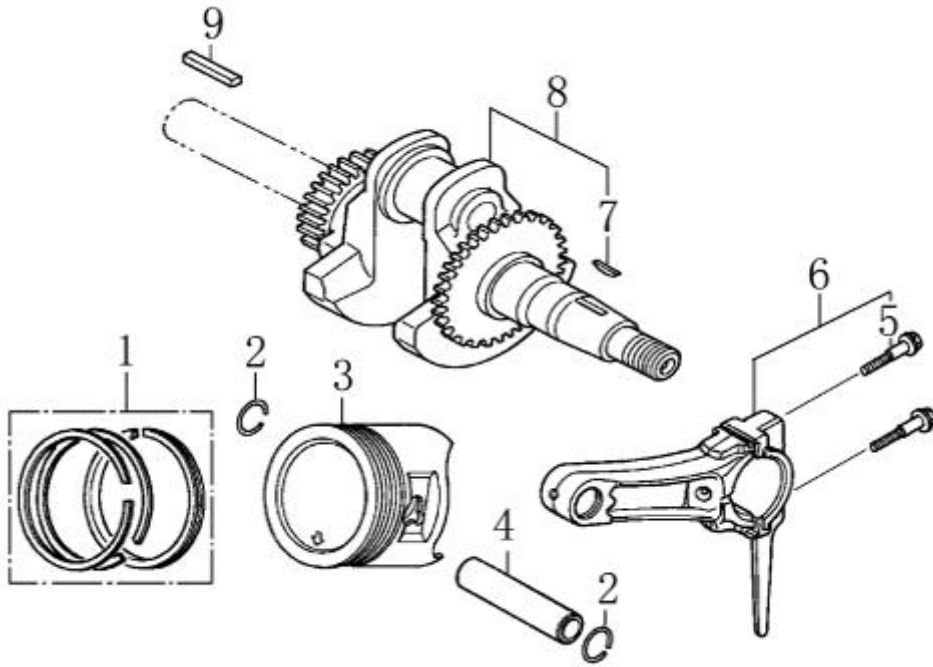
REF. NO.	DESCRIPTION	PART NO.	QTY
1	Crankcase	A201417	1
2	Seal, Oil, 25X41.25X6	A201418	1
3	Washer, Drain Plug	A201419	2
4	Bolt, Drain Plug	A201420	2
5	Alarm Unit, Sensor Module	A201421	1
6	Flange Bolt, M6 x 10mm	A201422	1
7	ASM, Oil Level Switch	A201423	1
8	Flange Bolt, M6 x 14mm	A201424	2
9	ASM, Governor Gear	A201425	1
10	Bearing, Radial Ball, 6205	A201426	1
11	Washer, 6 x 13 x 1	A201427	1
12	Pin, Governor	A201428	1
13	Arm, Governor	A201429	1

Crankcase Cover



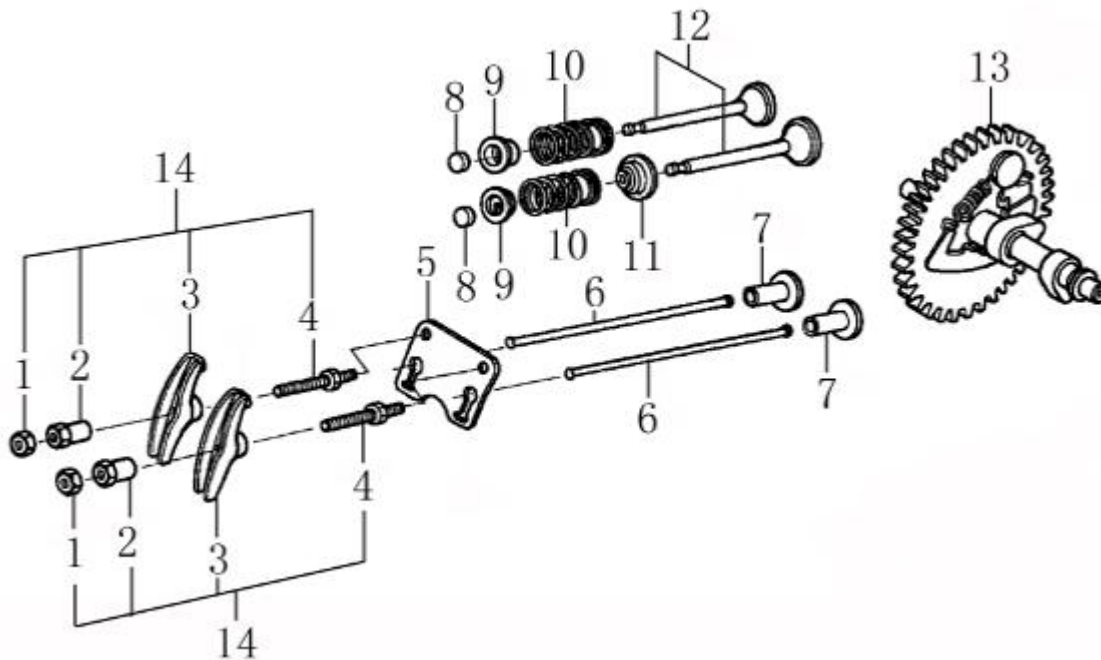
REF. NO.	DESCRIPTION	PART NO.	RQD
1	Kit, Dip Stick	A201430	2
2	Flange Bolt, M8 x 32mm	A204431	6
3	Cover, Crankcase	A201432	1
4	Seal, Oil, 25X41.25X6	A201418	1
5	Bearing, Radial Ball 6205	A201426	1
6	Pin, Dowel, M8 x 14mm	A201268	2
7	Gasket, Crankcase Cover	A201433	1

Crankshaft / Piston



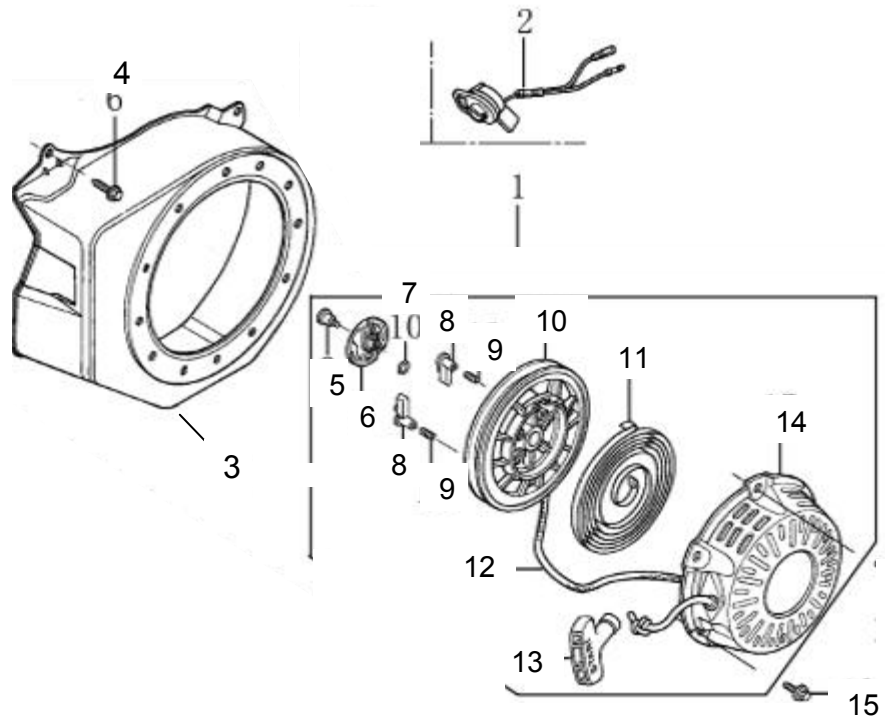
REF. NO.	DESCRIPTION	PART NO.	RQD
1	Ring Set, Piston	A201448	1
2	Clip, Piston Pin	A201449	2
3	Piston	A201450	1
4	Pin, Piston	A201451	1
5	Bolt, Connecting Rod	A201452	2
6	Kit, Connecting Rod	A201453	1
7	Key, Crankshaft Woodruff	A201454	1
8	Kit, Crankshaft	A201455	1
9	Key, Crankshaft Square	A201456	1

Camshaft



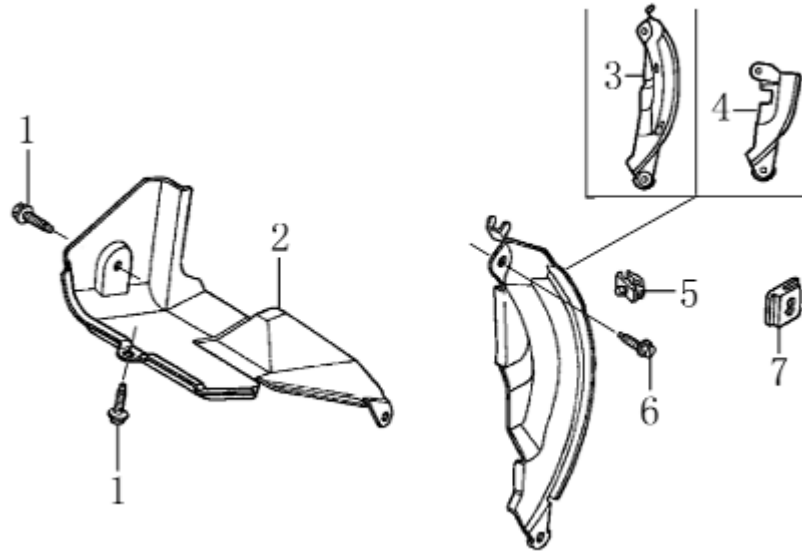
REF. NO.	DESCRIPTION	PART NO.	RQD
1	Nut, Pivot Adjusting	A201457	2
2	Pivot, Rocker Arm	A201458	2
3	Arm, Valve Rocker	A201459	2
4	Stud, Pivot Arm	A201460	2
5	Plate, Valve	A201461	1
6	Rod, Push	A201462	2
7	Valve, Lifter	A201463	2
8	Cap, Valve Spring	A201464	2
9	Retainer, Valve Spring	A201465	2
10	Spring, Valve	A201466	2
11A	Seal, Valve Guide - EPA	A201467	1
11B	Seal, Valve Guide - CARB	A202118	1
12	Kit, Valve Set	A201468	1
13	ASM, Camshaft	A201469	1
14	Kit, Rocker Arm (Includes #1-4)	A201470	2

Recoil Starter



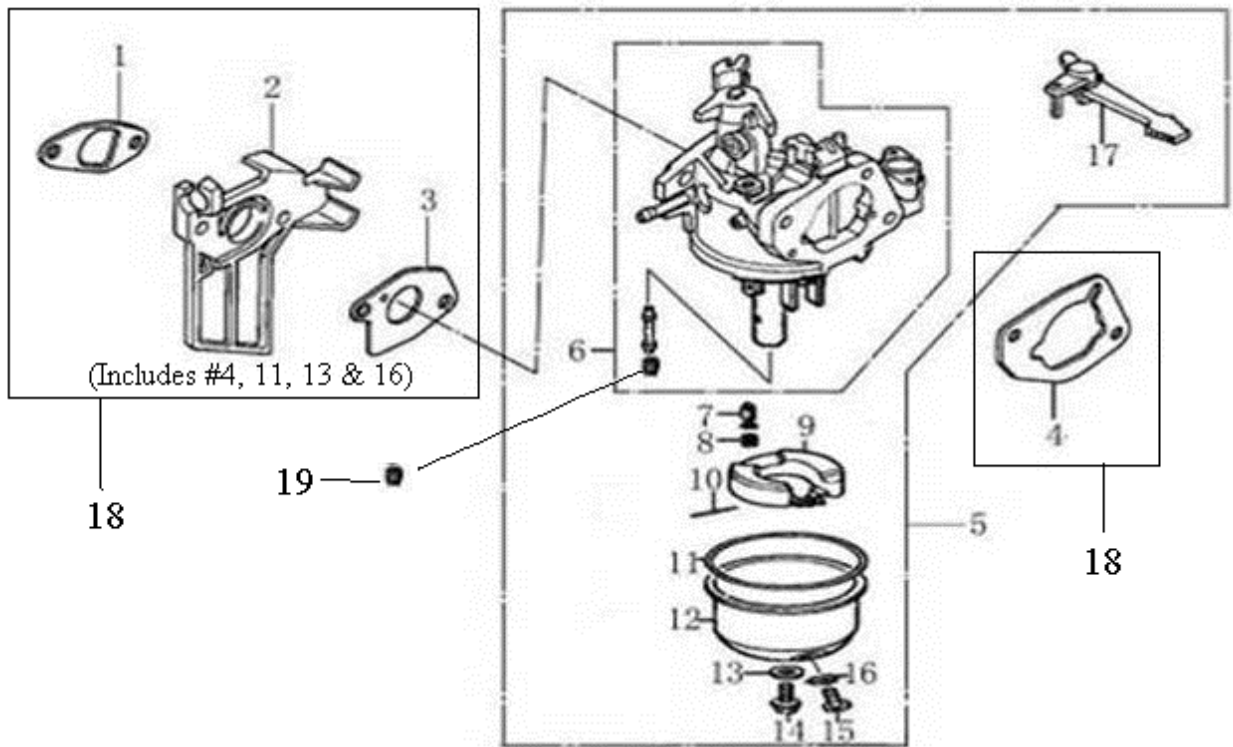
REF. NO.	DESCRIPTION	PART NO.	QTY
1	ASM, Recoil Starter	A201471	1
2	ASM, Kill Switch – Oil Sensor	A201473	1
3	Cover, Fan	A201474	1
4	Bolt, Flange M6 x 10mm	A201476	4
5	Screw, Starter	A201478	1
6	Pan, Guide	A201479	1
7	Spring, Friction	A201480	1
8	Ratchet, Starter	A201481	2
9	Spring, Compression	A201482	2
10	Spool, Pull Rope	A201483	1
11	Spring, Starter Recoil	A201484	1
12	Rope, Pull	A201485	1
13	Handle, Recoil Starter	A201486	1
14	Cover, Starter	A201487	1
15	Bolt, Flange M6 x 8mm	A201488	3

Shroud Assembly



REF. NO.	DESCRIPTION	PART NO.	QTY
1	Bolt, Flange M6 x 8mm	A201488	2
2	Shroud	A201489	1
3	Plate, Side 1	A201490	1
4	Plate, Side 2	A201491	1
5	Clip, Harness	A201492	1
6	Bolt, Flange M6 x 20mm	A201493	1
7	Grommet, Cord	A201494	1
8	Kit, Shroud ASM	A201891	1

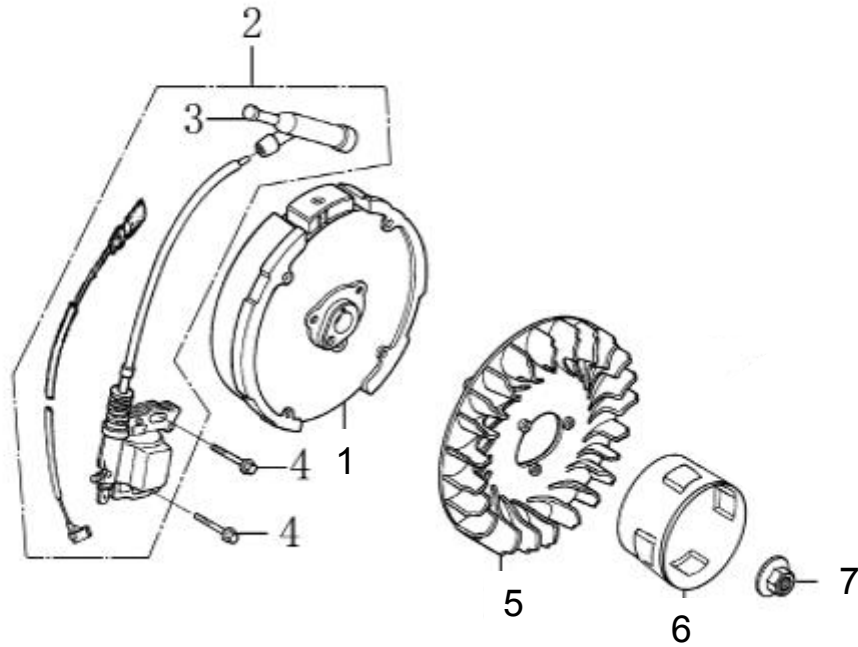
Carburetor: EPA & CARB



Carburetor: EPA & CARB

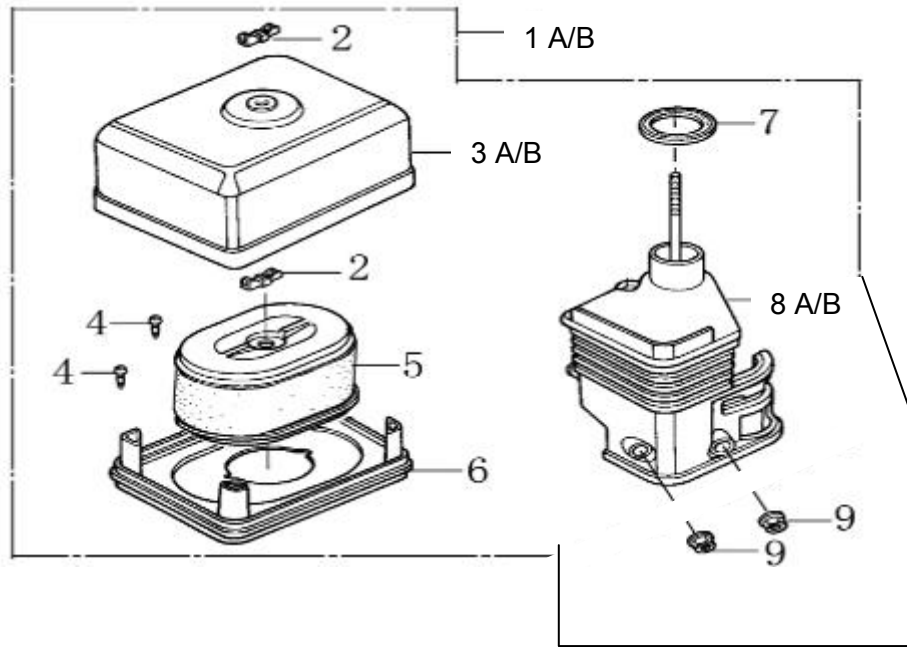
REF. NO.	DESCRIPTION	PART NO.	RQD
1	Gasket, Insulator	A201495	1
2	Spacer, Gasket	A201496	1
3	Gasket, Carburetor	A201497	2
4	Gasket, Air Filter	A201498	1
5A	ASM, Carburetor – EPA	A201499	1
5B	ASM, Carburetor – CARB	A202076	1
6A	Kit, Carburetor Body – EPA	<i>Reference Only</i>	1
6B	Kit, Carburetor Body – CARB	<i>Reference Only</i>	1
7A	Valve, Float – EPA	<i>Reference Only</i>	1
7B	Valve, Float – CARB	<i>Reference Only</i>	1
8A	Spring, Valve Set – EPA	<i>Reference Only</i>	1
8B	Spring, Valve Set – CARB	<i>Reference Only</i>	1
9A	Float – EPA	<i>Reference Only</i>	1
9B	Float – CARB	<i>Reference Only</i>	1
10A	Pin, Float – EPA	<i>Reference Only</i>	1
10B	Pin, Float – CARB	<i>Reference Only</i>	1
11A	Gasket, Bowl – EPA	<i>Reference Only</i>	1
11B	Gasket, Bowl – CARB	<i>Reference Only</i>	1
12	Bowl, Carburetor	<i>Reference Only</i>	1
13A	Gasket, Bowl Bolt – EPA	<i>Reference Only</i>	1
13B	Gasket, Bowl Bolt – CARB	<i>Reference Only</i>	1
14A	Bolt, Carburetor Bowl – EPA	<i>Reference Only</i>	1
14B	Bolt, Carburetor Bowl – CARB	<i>Reference Only</i>	1
15A	Bolt, Drain – EPA	<i>Reference Only</i>	1
15B	Bolt, Drain – CARB	<i>Reference Only</i>	1
16A	Gasket, Drain Bolt – EPA	<i>Reference Only</i>	1
16B	Gasket, Drain Bolt – CARB	<i>Reference Only</i>	1
17	ASM, Choke Lever	A201511	1
18	Kit, Carburetor Gasket (Includes #1-4, 11B, 13B, & 16B)	A201891	1
19	Jet, High Altitude (above 7000 feet MSL)	A203104	1

Flywheel / Ignition



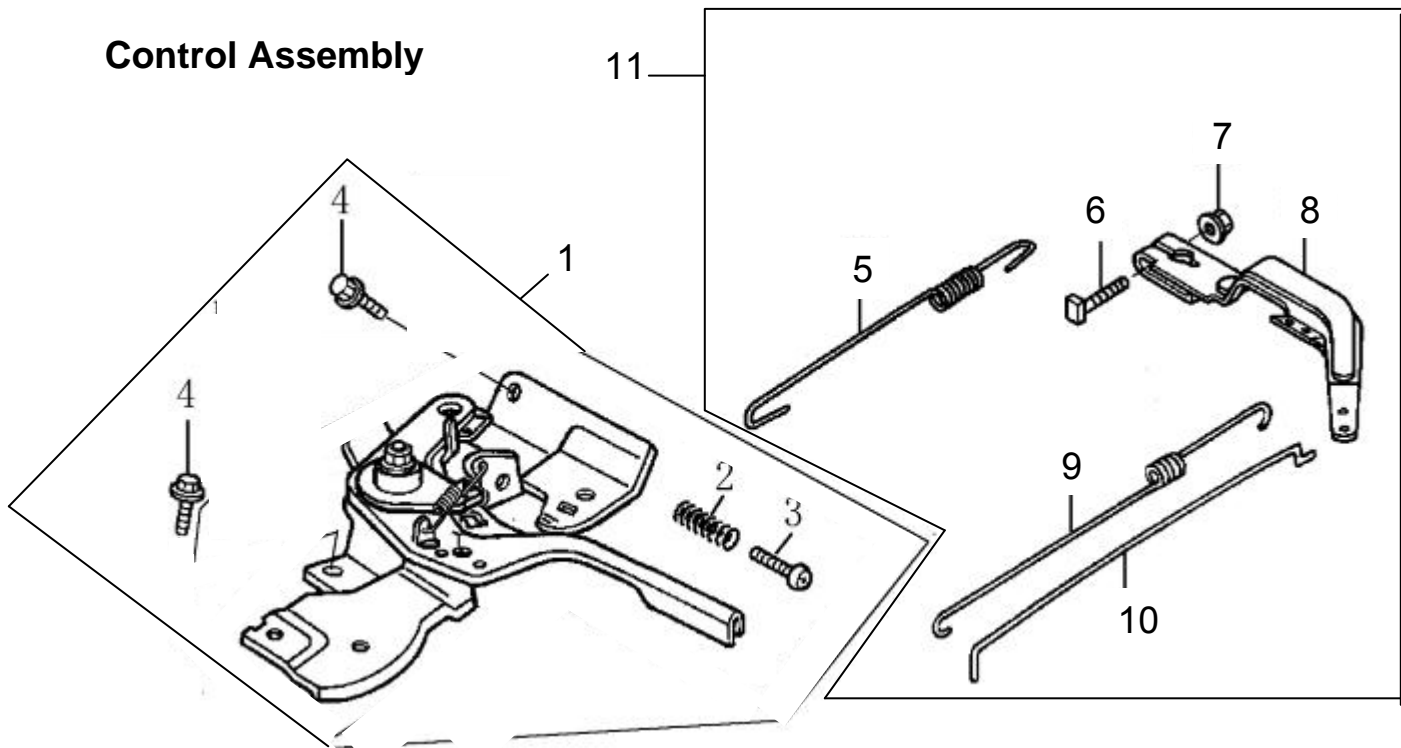
REF. NO.	DESCRIPTION	PART NO.	RQD
1	ASM, Flywheel	A201512	1
2	ASM, Ignition Coil	A201513	1
3	Cap, Spark Plug	A201514	1
4	Bolt, Flange M6 x 25mm	A201515	2
5	Fan, Flywheel	A201521	1
6	Pulley, Starter	A201522	1
7	Nut, Flywheel	A201523	1

Air Cleaner



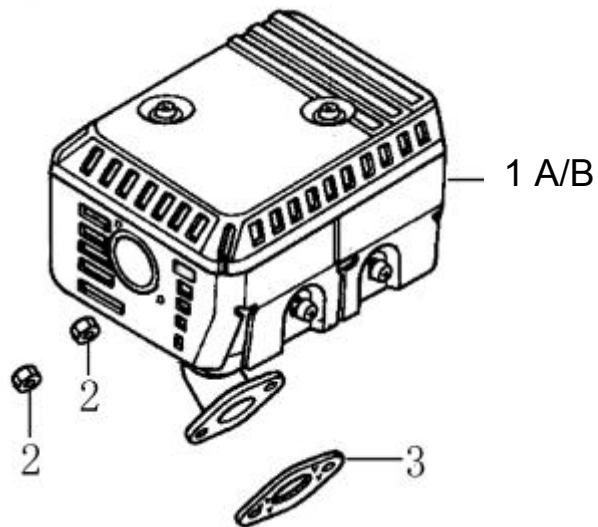
REF. NO.	DESCRIPTION	PART NO.	RQD
1A	Kit, Air Filter ASM – EPA (Includes 2,3A, 4-7, 8A, 9)	A201528	1
1B	Kit, Air Filter ASM – CARB (Includes 2,3B, 4-7, 8B, 9)	A202075	1
2	Wing Nut, Air Filter	A201529	2
3A	Top Cover, Air Filter – EPA	A201530	1
3B	Top Cover, Air Filter – CARB	A202105	1
4	Screw, Air Filter	A201531	2
5	ASM, Filter	A201532	1
6	Housing, Air Filter	A201533	1
7	Gasket, Air Filter	A201534	1
8A	Side Cover, Air Filter – EPA	A201535	1
8B	Side Cover, Air Filter – CARB	A202106	1
9	Nut, Flange M6	A201536	2

Control Assembly



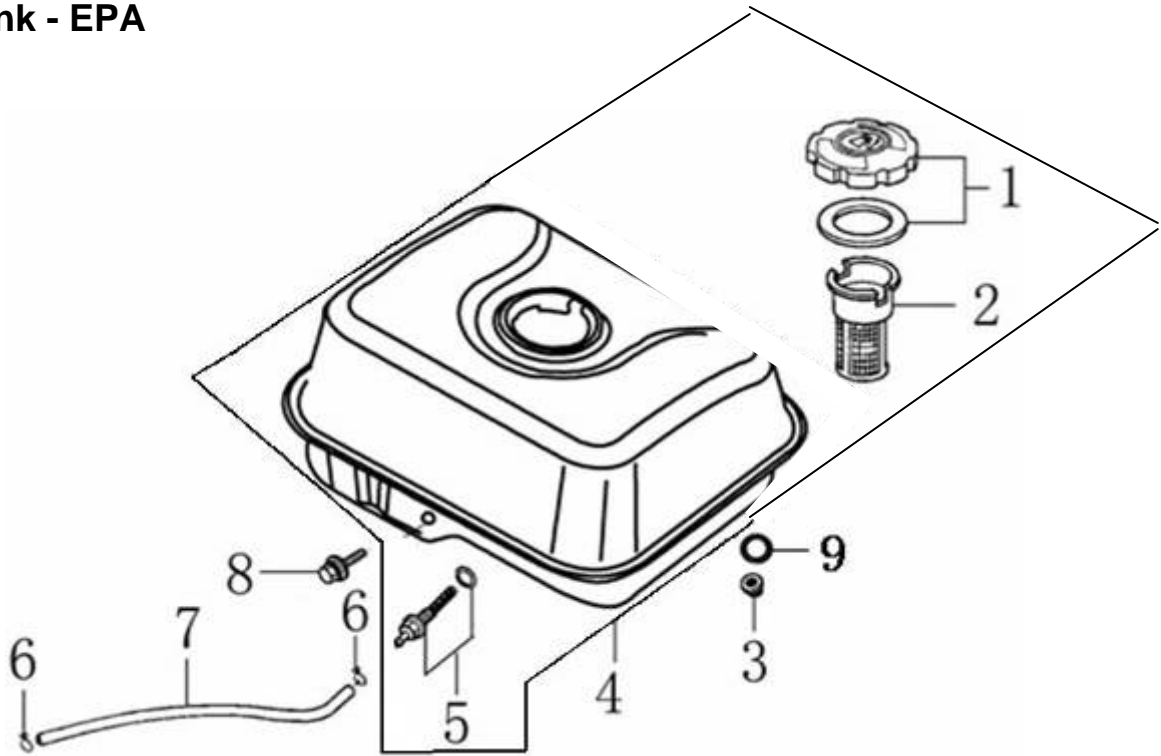
REF. NO.	DESCRIPTION	PART NO.	RQD
1	Kit, Control ASM (Includes #2-4)	A201537	1
2	Spring, Idle	A201538	1
3	Screw, M5 x 35mm	A201539	1
4	Bolt, Flange	A201540	2
5	Spring, Governor	A201546	1
6	Bolt, Governor Arm	A201547	1
7	Nut, Flange	A201548	1
8	Arm, Governor	A201549	1
9	Spring, Throttle Return	A201550	1
10	Rod, Governor	A201551	1
11	Kit, Governor Arm ASM (Includes #5-10)	A201894	1

Muffler



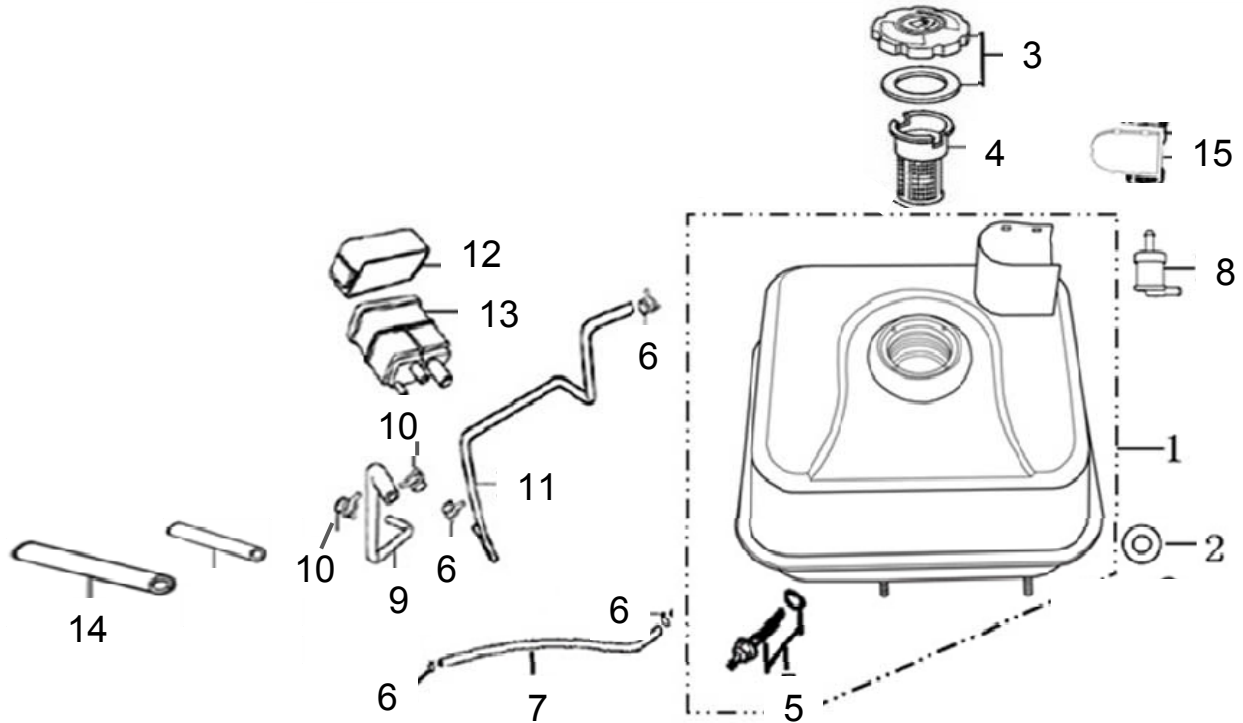
REF. NO.	DESCRIPTION	PART NO.	RQD
1A	ASM, Muffler – EPA	A201553	1
1B	ASM, Muffler – CARB	A202107	1
2	Nut, Hex - Muffler	A201554	2
3	Gasket, Muffler	A201555	1

Fuel Tank - EPA



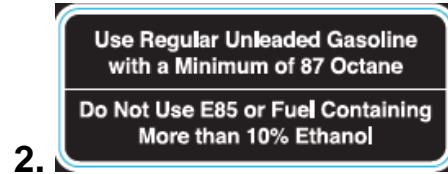
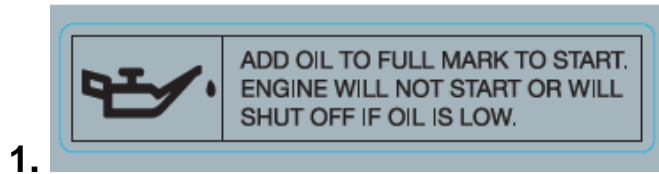
REF. NO.	DESCRIPTION	PART NO.	RQD
1	ASM, Cap	A201556	1
2	Strainer, Fuel	A201557	1
3	Nut, Flange M6	A201536	2
4	ASM, Fuel Tank EPA	A201558	1
5	ASM, Fuel Spigot	A201559	1
6	Clip, Fuel Line	A201560	2
7	Line, Fuel	A201561	1
8	Bolt, Flange M6 x 25mm	A201562	1
9	Isolator, Tank	A201563	2

Fuel Tank - CARB



REF. NO.	DESCRIPTION	PART NO.	RQD
1	ASM, Fuel Tank- Carb	A202109	1
2	Isolator, Tank	A201563	2
3	ASM, Cap	A202108	1
4	Filter, Fuel	A201557	1
5	ASM, Fuel Spigot	A201559	1
6	Clip, Fuel Line	A201560	4
7	Line, Fuel	A201561	1
8	Valve, Breather	A202110	1
9	Pipe 1	A202111	1
10	Clip, Tube	A202112	2
11	Pipe 2	A202113	1
12	Cover, Carbon Canister	A202114	1
13	ASM, Carbon Canister (Includes #12)	A202115	1
14	Sleeve, Protective	A202116	1
15	Cover, Canister	A202117	1

Engine Warning and Maintenance Labels



Engine Warning and Maintenance Labels

REF. NO.	DESCRIPTION	PART NO.	QTY
1	Decal, Add Engine Oil Warning	A202100	1
2	Decal, Unleaded Gasoline Warning	A202101	1
3	Decal, Air Filer Maintenance	A202102	1
4	Decal, Engine Oil Maintenance	A202103	1
5	Decal, Hot Surface Warning	A201755	1
6	Kit, Engine Warning and Maintenance Decal (#1- 5)	A202104	1