

***Powermate***

**ILLUSTRATED PARTS BOOK**

**4-Cycle High-Wheel Field Trimmer**

**P-WFT-16022-[E]**

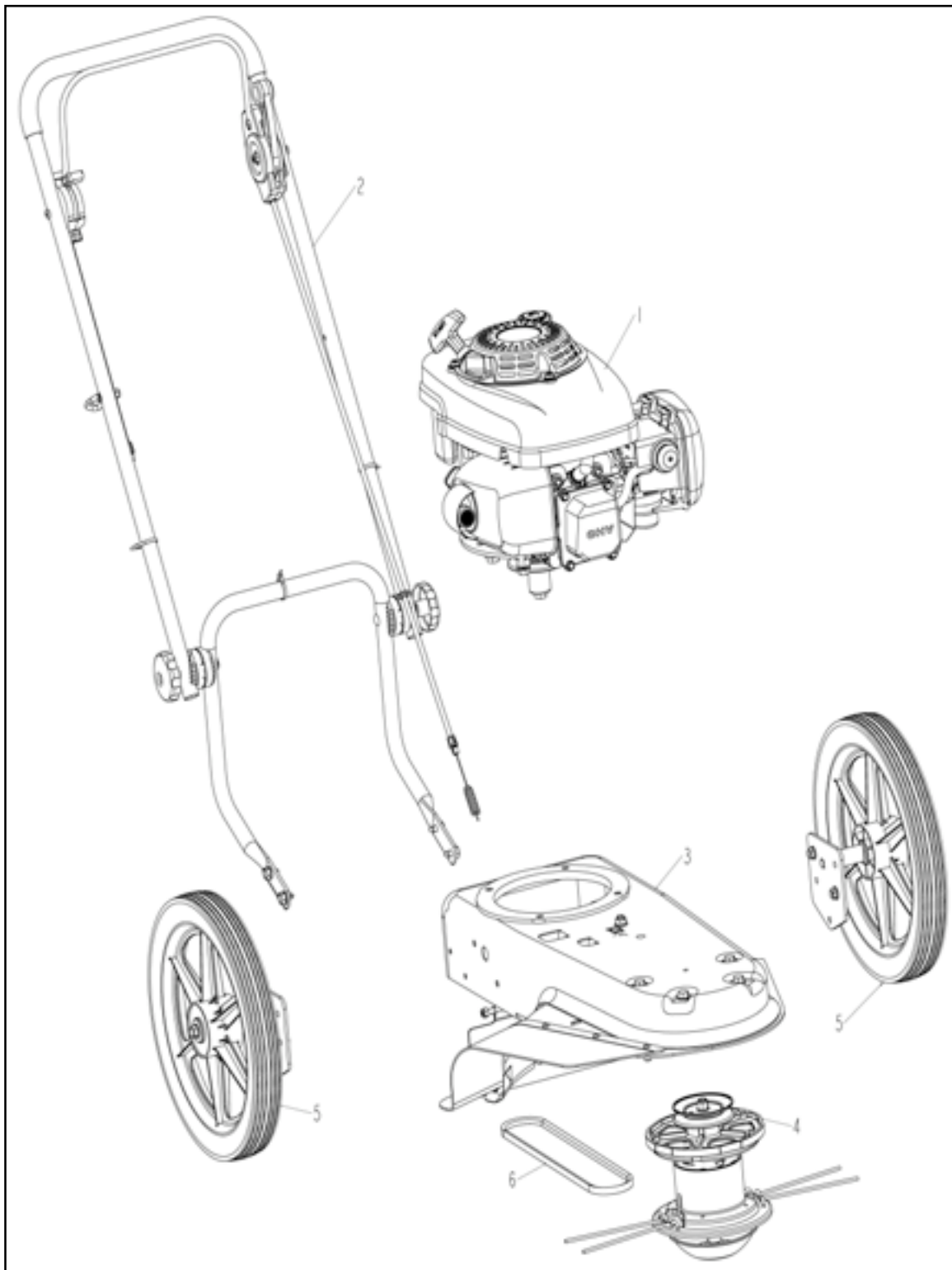




## Table of Contents

<b>Top Level Assembly</b> .....	3
<b>Engine – Top Level Assembly</b> .....	5
<b>Wheel Assembly</b> .....	6
<b>Handle Assembly</b> .....	7
<b>Frame Assembly</b> .....	9
<b>Cutting Head Assembly</b> .....	11
<b>Engine – Sub Level Assembly</b> .....	13
<b>Cylinder Head Assembly</b> .....	15
<b>Valve Timing Assembly</b> .....	17
<b>Crankcase Assembly</b> .....	19
<b>Crankshaft Assembly</b> .....	21
<b>Piston / Connecting Rod Assembly</b> .....	22
<b>Muffler Assembly</b> .....	23
<b>Air Filter Assembly</b> .....	24
<b>Carburetor Assembly</b> .....	25
<b>Ignition System Assembly</b> .....	26
<b>Engine Cover Assembly</b> .....	27
<b>Governor Assembly</b> .....	29
<b>Fuel Tank Assembly</b> .....	31

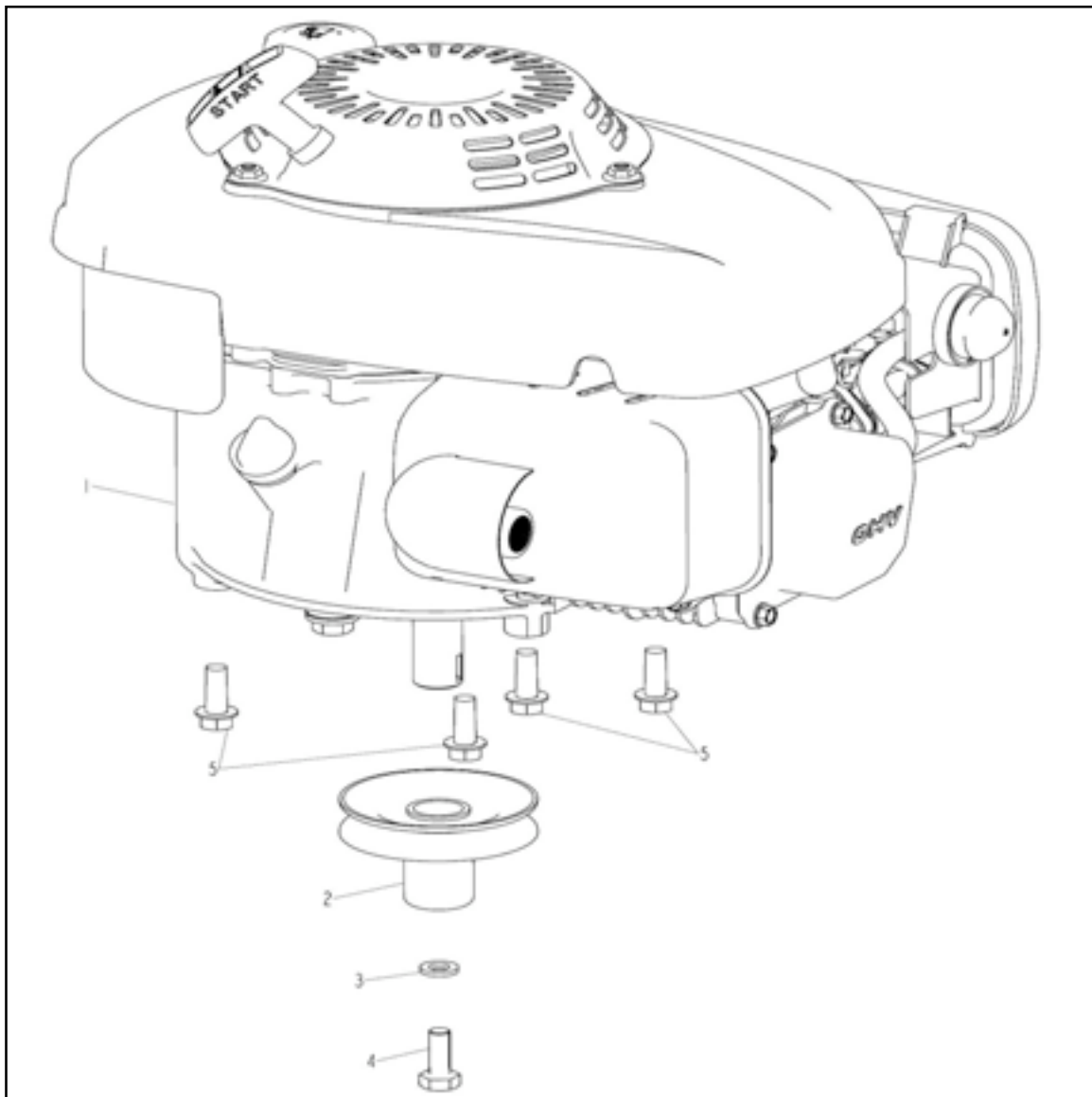
## Top Level Assembly



## Top Level Assembly

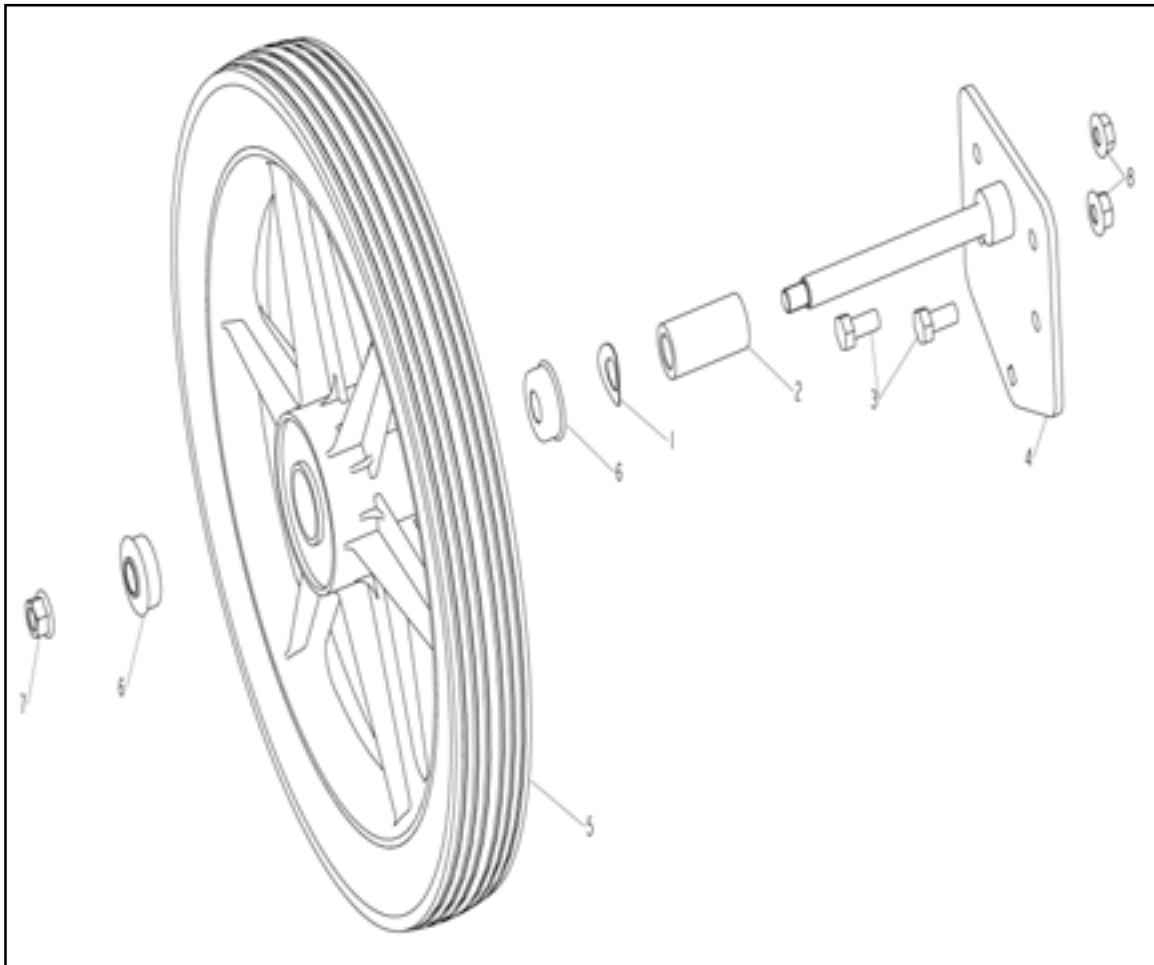
REF. NO.	NAME	PART NO.	QTY
1	Engine Top-Level Assembly	See Page 5	1
2	Handle Assembly	See Page 7	1
3	Frame Assembly	See Page 9	1
4	Cutting Head Assembly	See Page 11	1
5	Wheel Assembly	See page 6	2
6	Belt, Trimmer	A100539	1

## Engine – Top Level Assembly



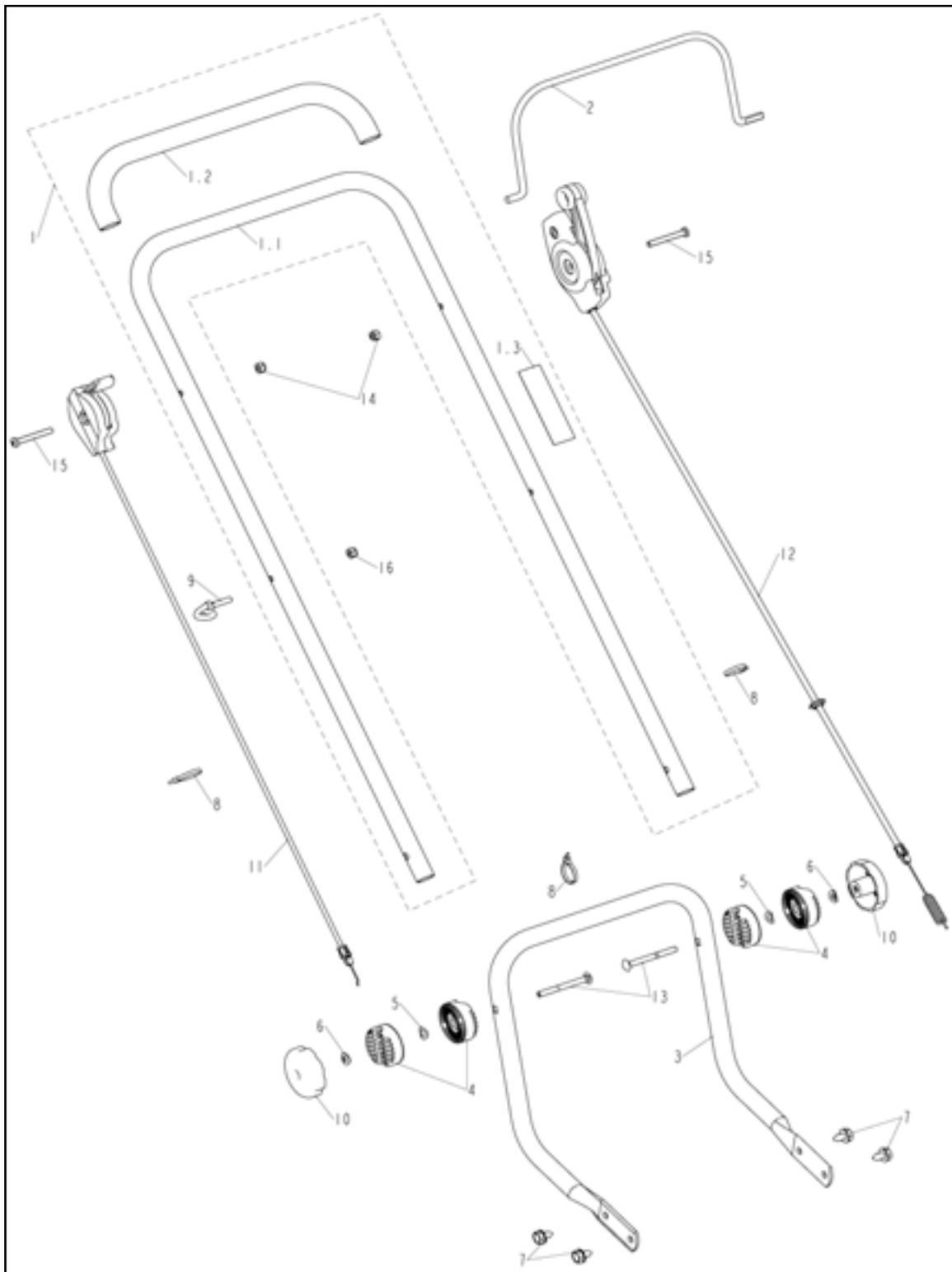
REF. NO.	NAME	PART NO.	QTY
1	Engine Sub-Level Assembly	A100535 – See Page 13	1
2	Pulley, Engine	A100536	1
3	Lock Washer, $\Phi 10$	A100537	1
4	Bolt, Hex Head 3/8-24x1.0	A100538	1
5	Screw, Engine, 3/8-16x1.0	A100540	4

## Wheel Assembly



REF. NO.	NAME	PART NO.	QTY
1	Washer, Spring	A100557	1
2	Spacer	A100556	1
3	Bolt, Hex Head M8x16	A100800	2
4	Axle & Bracket	A100558	1
5	Wheel & Tire	A100559	1
6	Bearing	A100560	2
7	Lock Nut, M10	A100462	1
8	Nut, M8	A100801	2

# Handle Assembly

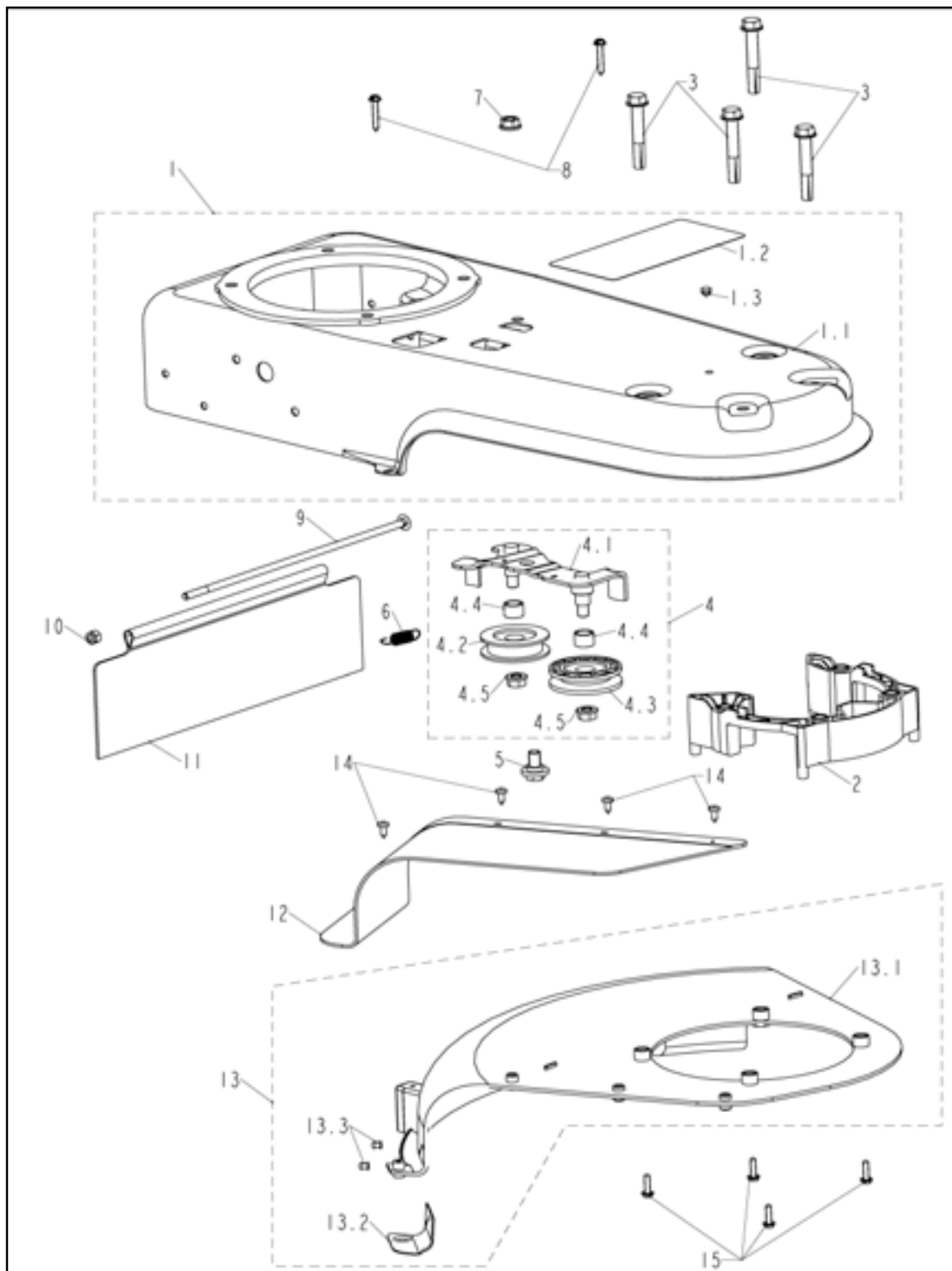




## Handle Assembly

REF. NO.	NAME	PART NO.	QTY
1	Upper Handle Assembly	A101068	1
1.1	Upper Handle	For Reference Only	1
1.2	Tubing, Foam	A100553	1
1.3	Label, Engage/Disengage	A101069	1
2	Lever, Stop	A101070	1
3	Lower Handle	A100543	1
4	Pivot, Handle	A100544	4
5	Washer, Spring	A100545	2
6	Washer	A100546	2
7	Screw, 5/16-18x.62 HHWA TAP	A100547	4
8	Tie, Cable	A100548	3
9	Guide, Rope	A100521	1
10	Knob, Handle	A101107	2
11	Control, Throttle	A101072	1
12	Engagement Lever & Cable	A101073	1
13	Bolt, Carriage M8x85	A100554	2
14	Nut, Nylon Lock M6	A100506	2
15	Screw, PHPN M6x50	A100555	2
16	Nut, 1/4-20	A100707	1

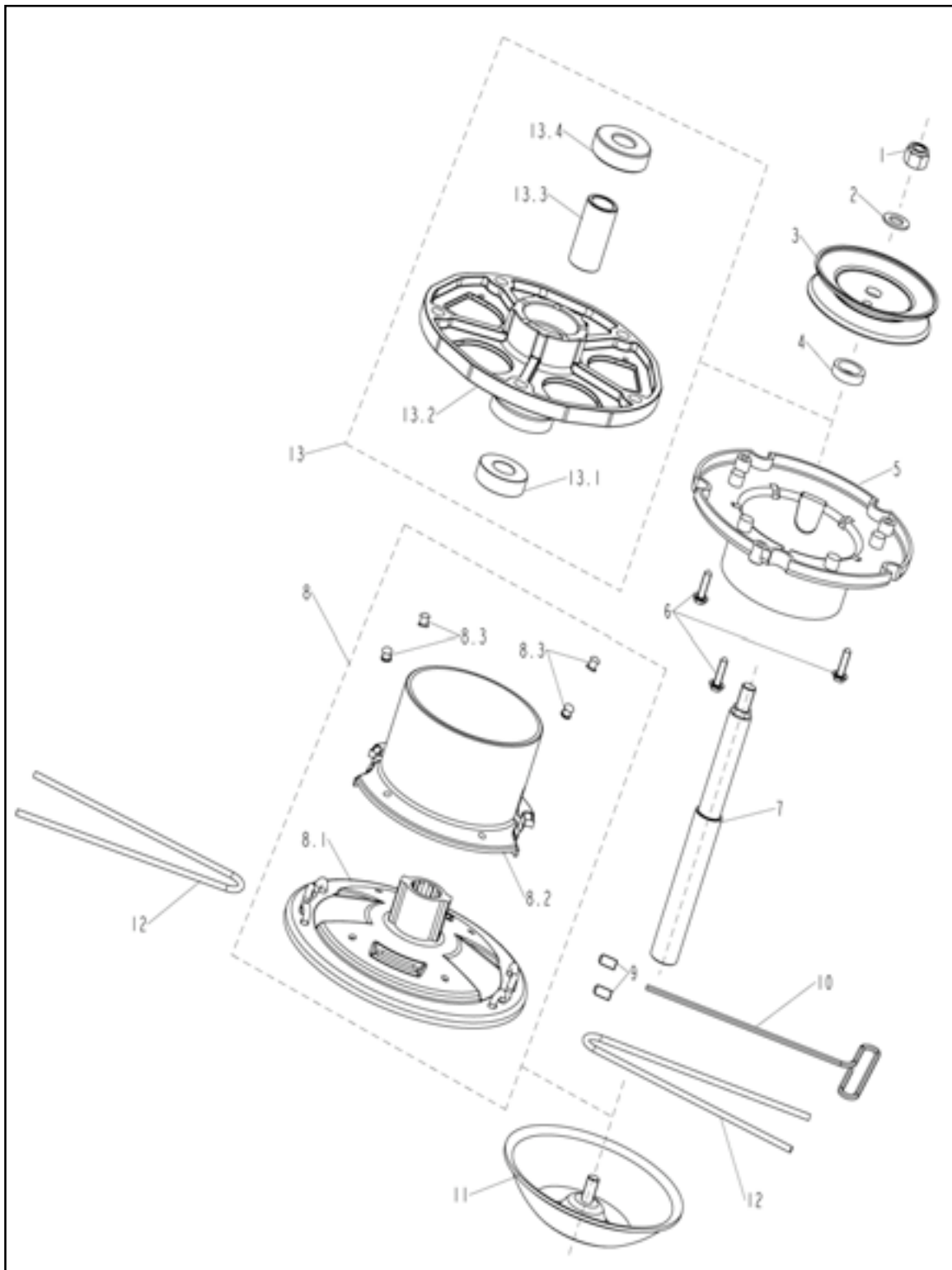
# Frame Assembly



## Frame Assembly

REF. NO.	NAME	PART NO.	QTY
1	Frame Sub Assembly	A101108	1
1.1	Frame	For Reference Only	1
1.2	Label, Warning	A101079	1
1.3	Plug	A101080	1
2	Spacer, Drive Belt	A100562	1
3	Screw, 3/8-16x2.5 HXWATAP	A100563	4
4	Bracket, Idler Assembly	A100835	1
4.1	Bracket, Idler	A100564	1
4.2	Pulley, Idler	A100565	1
4.3	"V" Pulley	A100566	1
4.4	Spacer	A100836	2
4.5	Lock Nut, M10	A100462	2
5	Bolt, HSSH	A100569	1
6	Spring, Extension	A100570	1
7	Lock Nut, M10	A100462	1
8	Screw, #10-16x1.25	A100573	2
9	Bolt, Carriage, M6x283	A100574	1
10	Nut, Nylon Lock M6	A100506	1
11	Shield, Trailing	A100571	1
12	Flap, Debris	A100572	1
13	Shield Assembly	A100837	1
13.1	Shield	For Reference Only	1
13.2	Blade	For Reference Only	1
13.3	Rivet	For Reference Only	2
14	Screw, ST4.8x12	A100575	4
15	Screw, #10-16x.75	A100576	4

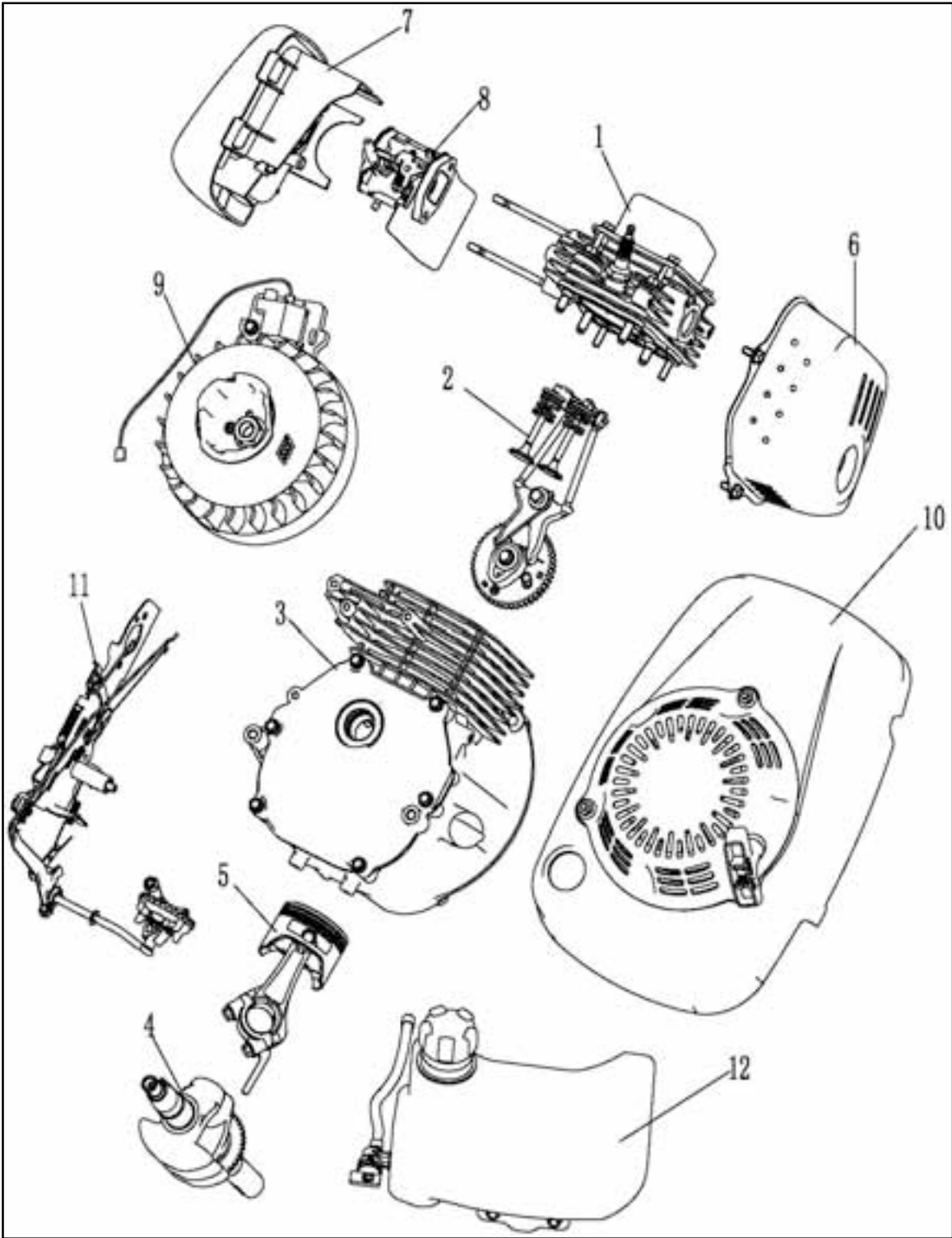
# Cutting Head Assembly



## Cutting Head Assembly

REF. NO.	NAME	PART NO.	QTY
1	Nut, M10x1.25	A100703	1
2	Washer, Flat $\Phi$ 10	A100577	1
3	Pulley, Cutting Head	A100578	1
4	Spacer	A100579	1
5	Wrap Weed, Upper BLK	A100580	1
6	Screw, #10-16x.75	A100576	3
7	Shaft, Cutting Head	A100582	1
8	Cutter Head & Wrap Assembly	A100840	1
8.1	Cutter Head	For Reference Only	1
8.2	Wrap Weed, Lower BLK	For Reference Only	1
8.3	Rivet	For Reference Only	4
9	Screw, M6x12	A100584	2
10	Wrench, T-Handle	A100585	1
11	Guide, Height	A100587	1
12	Line, Trimmer	For Reference Only	2
13	Jackshaft Housing Assembly	A100839	1
13.1	Bearing, 99502	A100592	1
13.2	Housing, Jackshaft	A100590	1
13.3	Spacer	A100591	1
13.4	Bearing, 6203-2DLRS-5/8	A100589	1

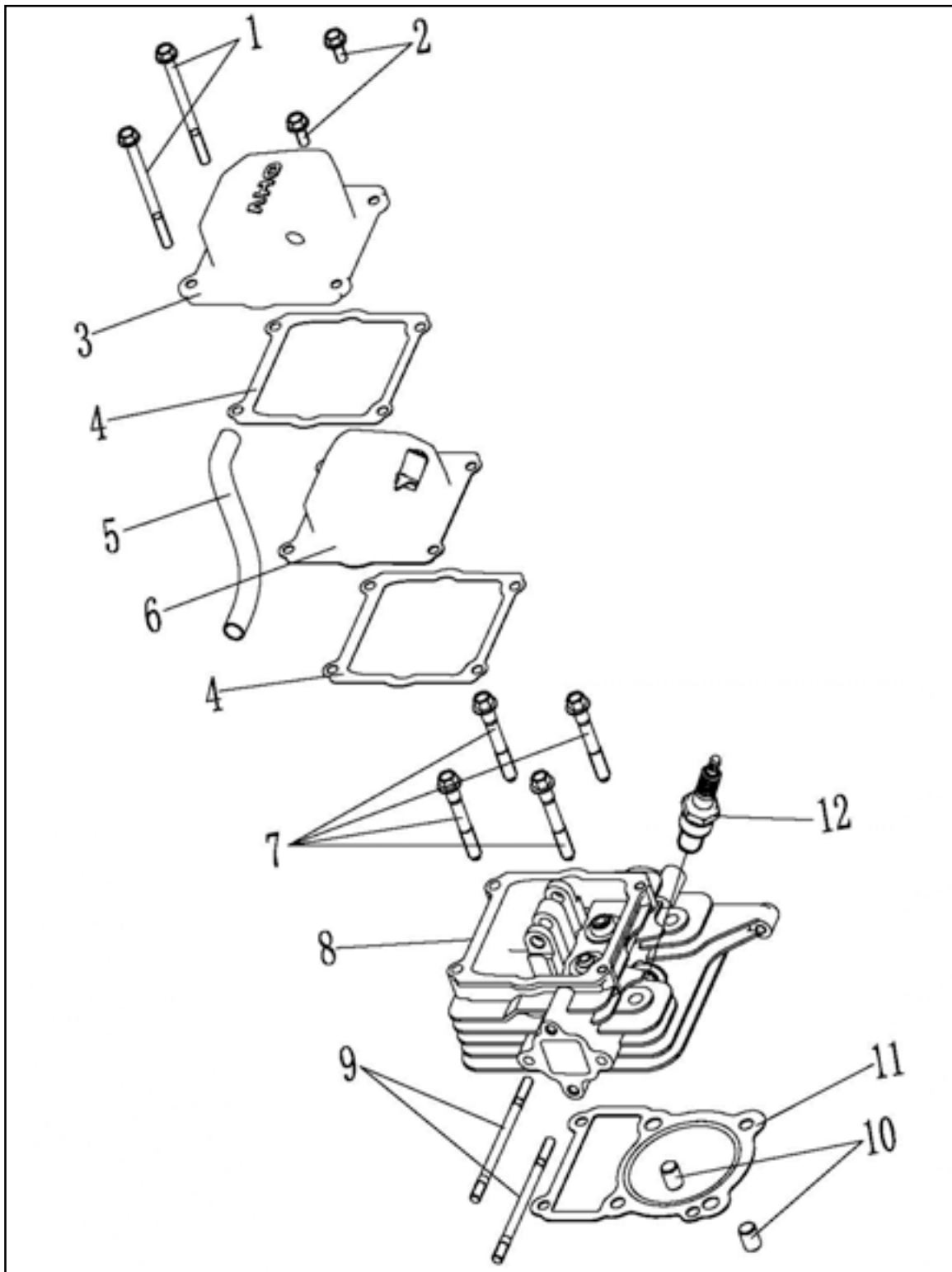
# Engine – Sub Level Assembly



## Engine – Sub Level Assembly

REF. NO.	NAME	PART NO.	QTY
1	Cylinder Head Assembly	See Page 15	1
2	Valve Timing Assembly	See Page 17	1
3	Crankcase Assembly	See Page 19	1
4	Crankshaft Assembly	See Page 21	1
5	Piston & Connecting Rod Assembly	See Page 22	1
6	Muffler Assembly	A100699 – See Page 23	1
7	Air Filter Assembly	See Page 24	1
8	Carburetor Assembly	See Page 25	1
9	Ignition System Assembly	See Page 26	1
10	Engine Cover Assembly	See Page 27	1
11	Centrifugal Governor Assembly	See Page 29	1
12	Fuel Tank Assembly	See Page 31	1

# Cylinder Head Assembly

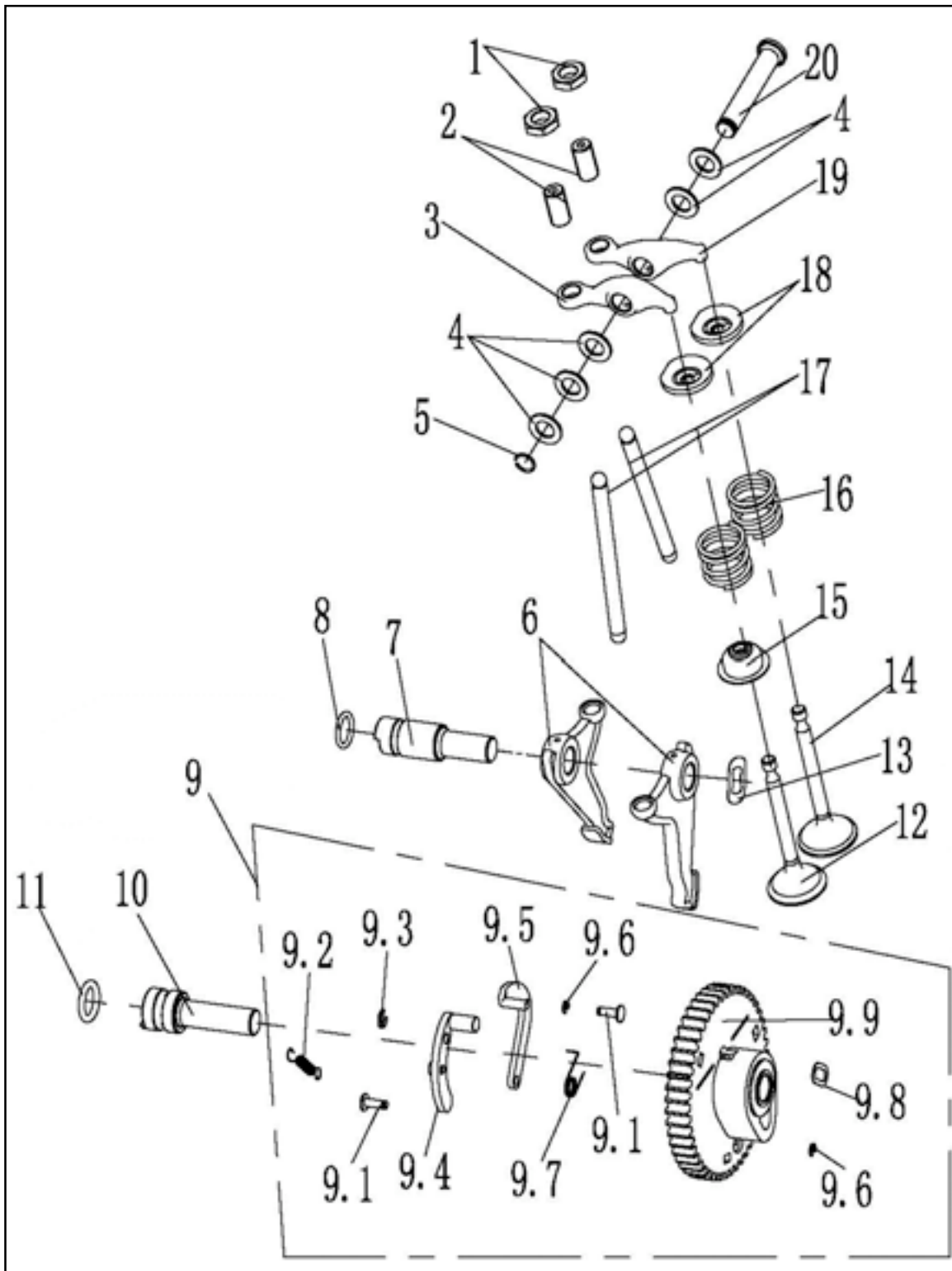




## Cylinder Head Assembly

REF. NO.	NAME	PART NO.	QTY
1	Bolt	A100659	2
2	Bolt, M6x14	A100663	2
3	Cylinder Head Cover	A100664	1
4	Gasket, Cylinder Head (I)	A100665	2
5	Breather Tube	A100666	1
6	Cylinder Head Cover Spacer	A100667	1
7	Bolt, M8x55	A200024	4
8	Cylinder Head	A200025	1
9	Double End Stud	A200026	2
10	Aligning Pin	A200046	2
11	Gasket, Cylinder Head (II)	A100674	1
12	Spark Plug	A100662	1

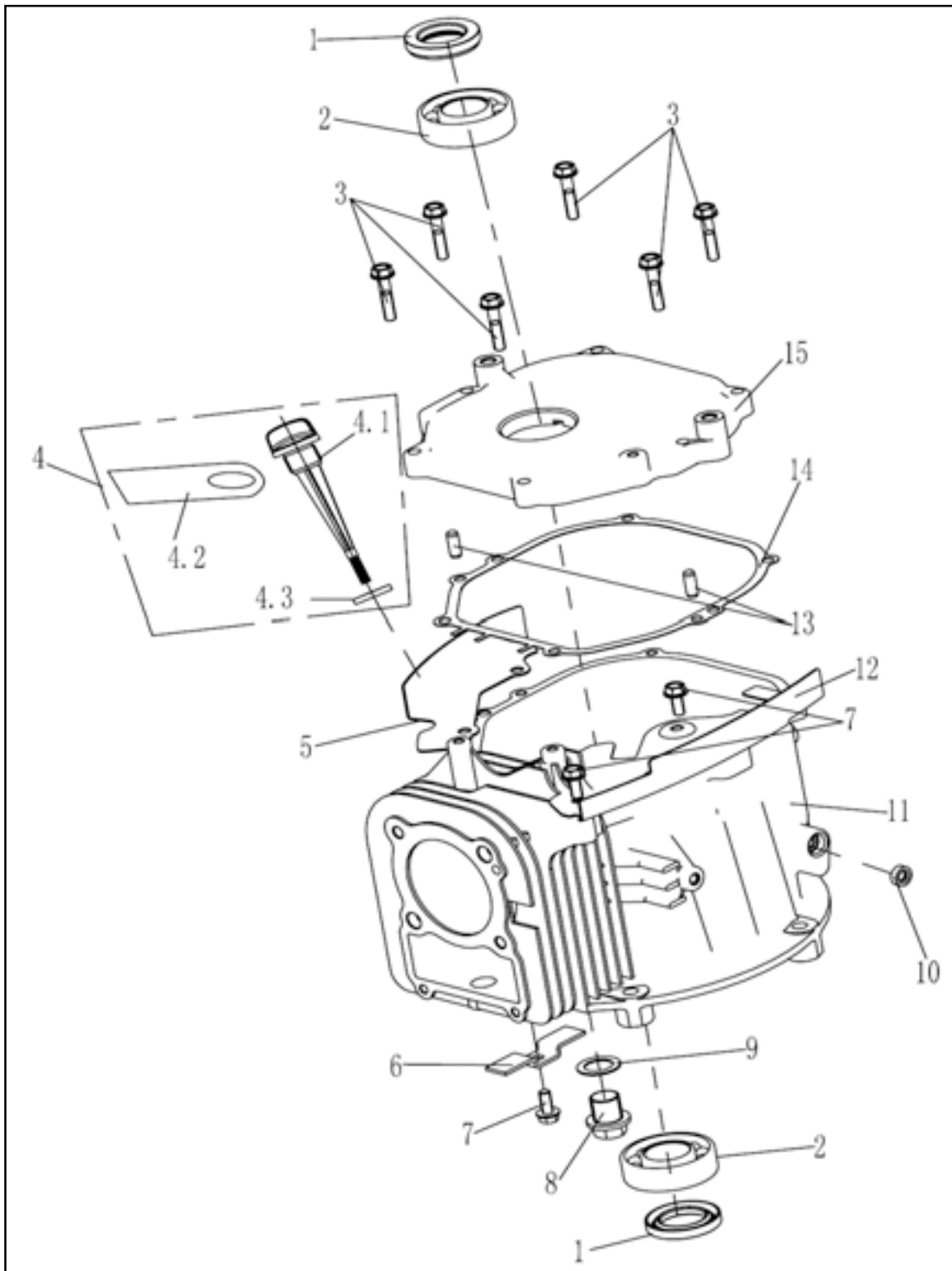
# Valve Timing Assembly



## Valve Timing Assembly

REF. NO.	NAME	PART NO.	QTY
1	Valve Lash Adjusting Nut	A200045	2
2	Valve Lash Adjusting Screw	A200044	2
3	Inlet Valve Rocker	A200043	1
4	Washer	A100794	5
5	Retaining Ring	A200042	1
6	Idle Rod	A200041	2
7	Idle Rod Shaft	A200040	1
8	O Ring, $\varnothing 10.6 \times 1.8$	A200039	1
9	Cam Assembly	A100822	1
9.1	Shaft	For Reference Only	2
9.2	Tension Spring	For Reference Only	1
9.3	Retaining Ring 3	For Reference Only	1
9.4	Pawl (I)	For Reference Only	1
9.5	Pawl (II)	For Reference Only	1
9.6	Retaining Ring 2	For Reference Only	2
9.7	Torsion Spring	For Reference Only	1
9.8	Ring Gasket	For Reference Only	1
9.9	Cam Gear	For Reference Only	1
10	Camshaft Set	A200032	1
11	O Ring, $\varnothing 11.2 \times 2.5$	A200031	1
12	Inlet Valve	A200056	1
13	Spring Washer	A200055	1
14	Exhaust Valve	A200054	1
15	Inlet Valve Oil Seal	A200053	1
16	Valve Spring	A200052	2
17	Valve Tappet	A200051	2
18	Valve Spring Seat	A200050	2
19	Exhaust Valve Rocker	A200049	1
20	Rocker Shaft	A200047	1

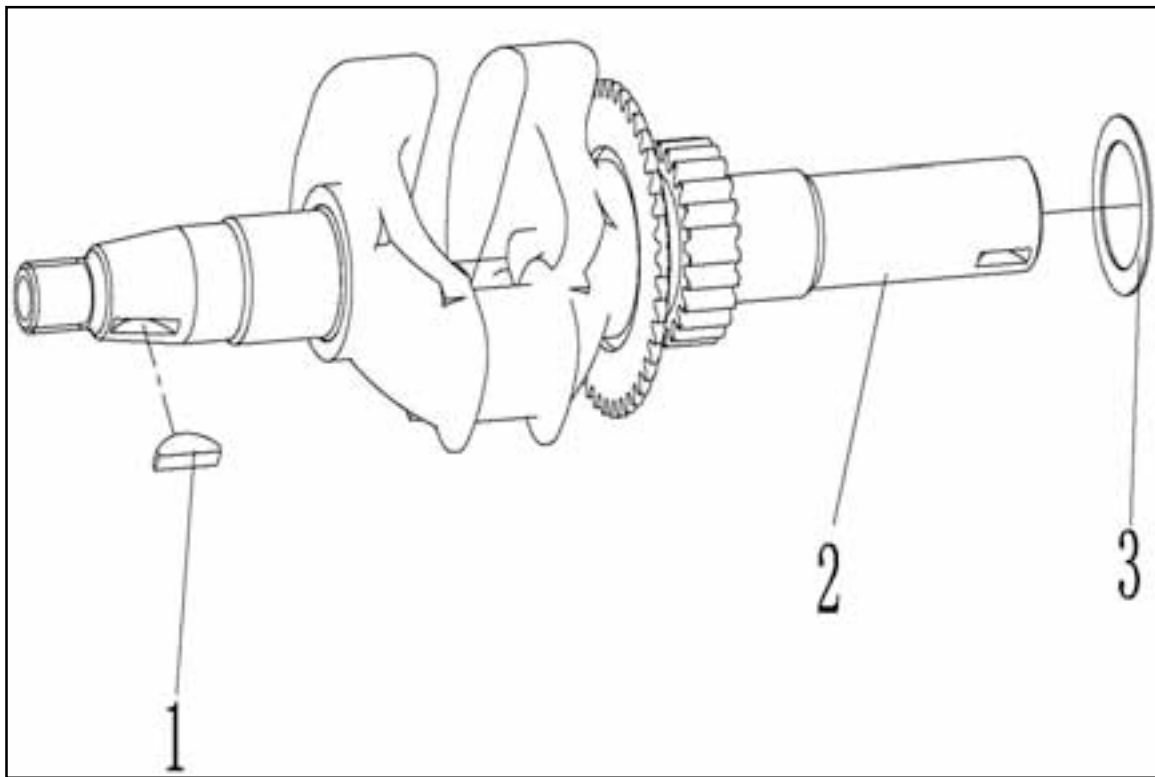
# Crankcase Assembly



## Crankcase Assembly

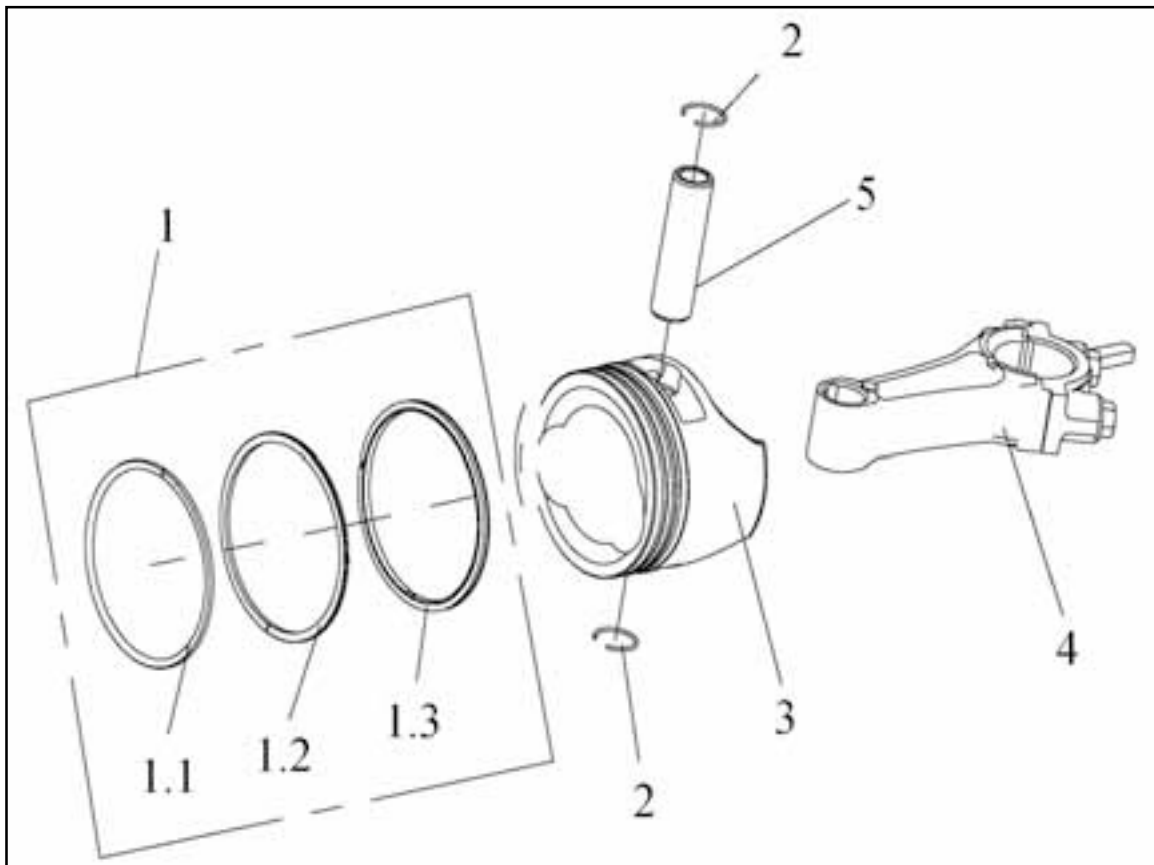
REF. NO.	NAME	PART NO.	QTY
1	Oil Seal	A100675	2
2	Bearing, 6025/P53	A200102	2
3	Bolt, M6×30	A200097	6
4	Oil Dip Rod Assembly	For Reference Only	1
4.1	Oil Dip Rod	A101095	1
4.2	Oil Hang Tag - Oil Dipstick	A100979	1
4.3	Oil Sealing Plate	A100686	1
5	Wind Shield, Left	A200030	1
6	Shield	A200060	1
7	Bolt, M6x12	A100657	3
8	Drain Plug, M16×15	A200062	1
9	Washer, 16×24×1.4	A200061	1
10	Oil Seal	A100684	1
11	Crankcase Body	A200099	1
12	Wind Shield, Right	A200029	1
13	Aligning Pin	A100683	2
14	Paper Gasket	A100682	1
15	Crankcase Cover	A200098	1

## Crankshaft Assembly



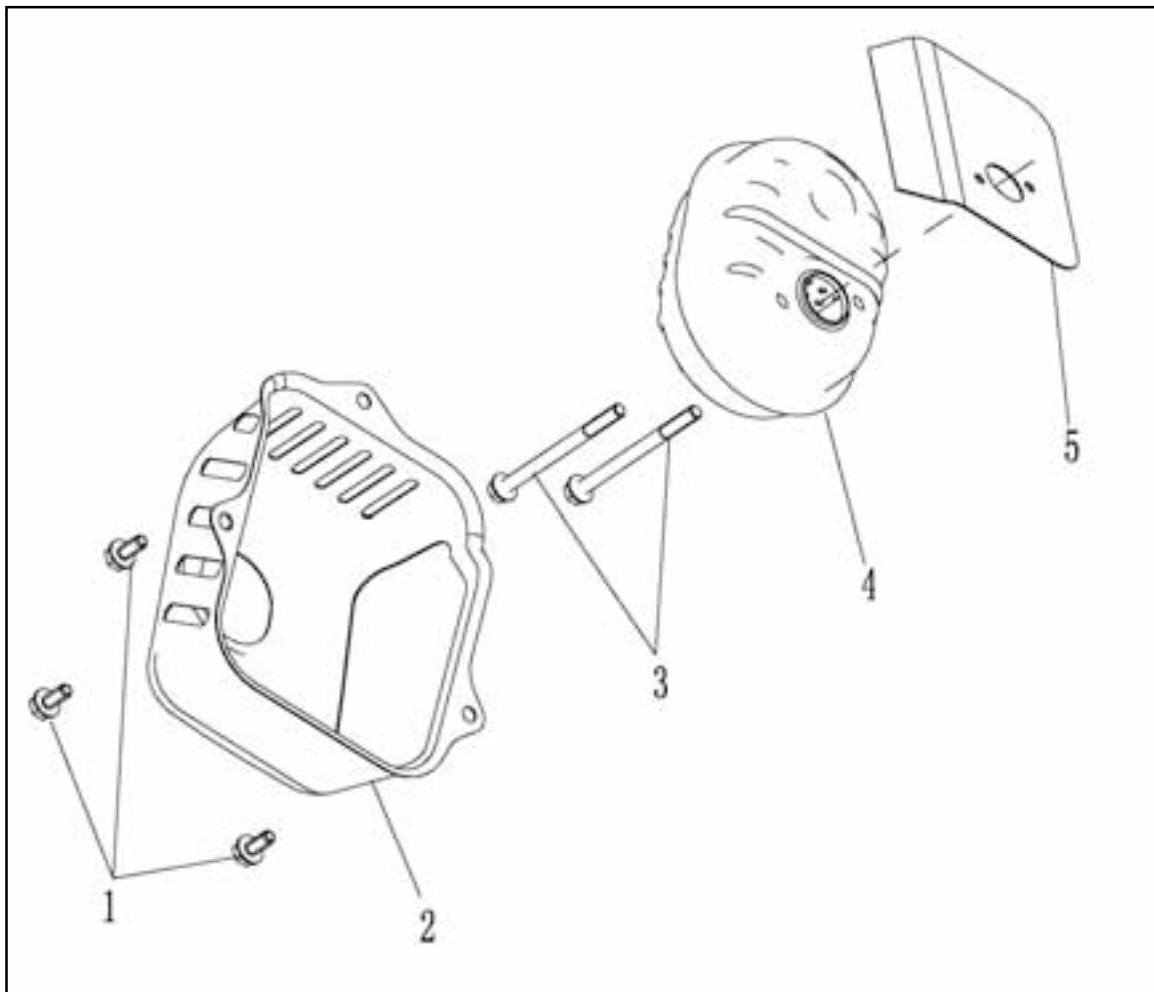
REF. NO.	NAME	PART NO.	QTY
1	Semicircular Key	A100688	1
2	Crankshaft	A200104	1
3	Washer	A100796	1

## Piston / Connecting Rod Assembly



REF. NO.	NAME	PART NO.	QTY
1	Piston Ring Assembly	A100826	1
1.1	Ring, First	For Reference Only	1
1.2	Ring, Second	For Reference Only	1
1.3	Oil Ring	For Reference Only	1
2	Clip, Piston Pin	A200105	2
3	Piston	A200108	1
4	Connecting Rod	A200107	1
5	Piston Pin	A200106	1

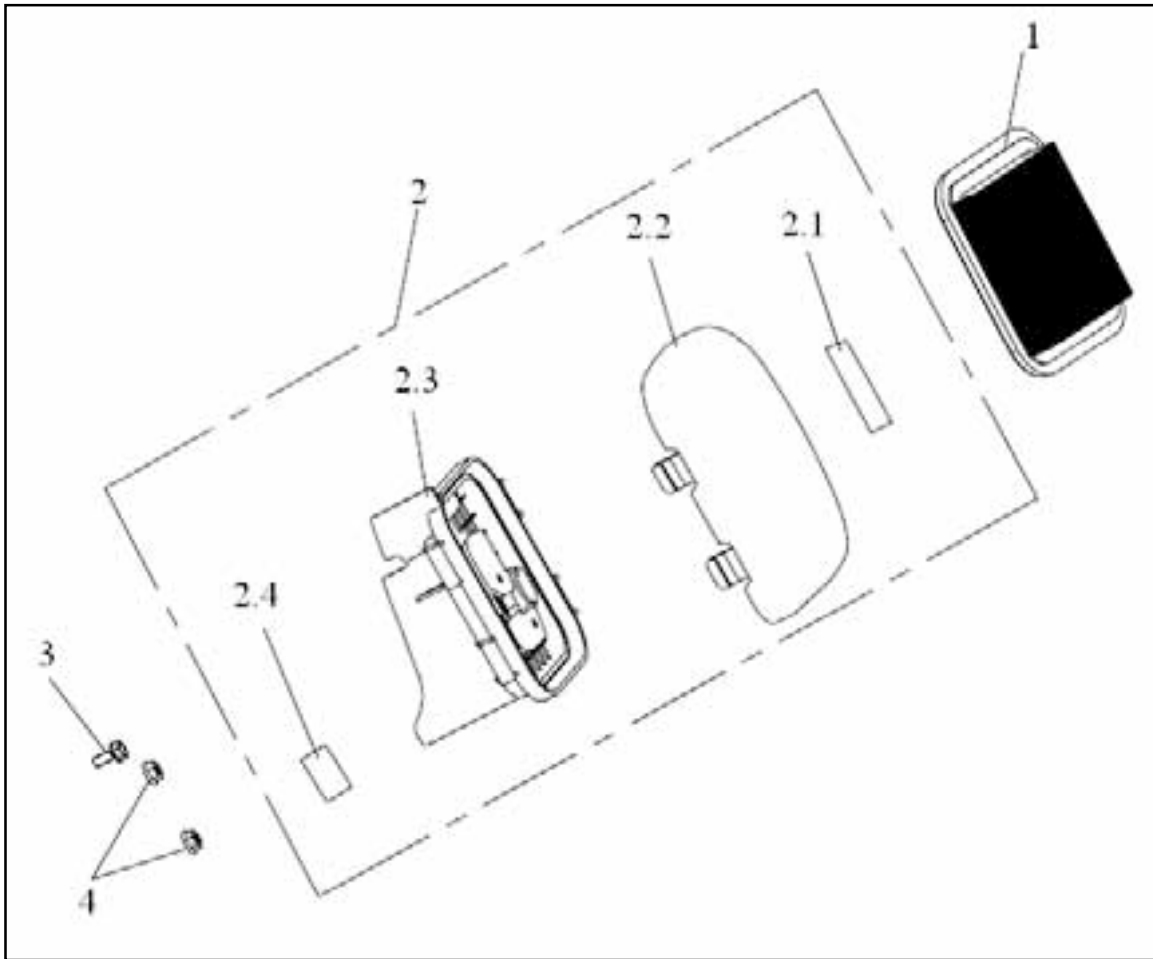
## Muffler Assembly



REF. NO.	NAME	PART NO.	QTY
1	Bolt, M6x12	A100657	3
2	Muffler Guard	A100658	1
3	Bolt	A100659	2
4	Muffler	A100660	1
5	Muffler Heat Shield	A100661	1

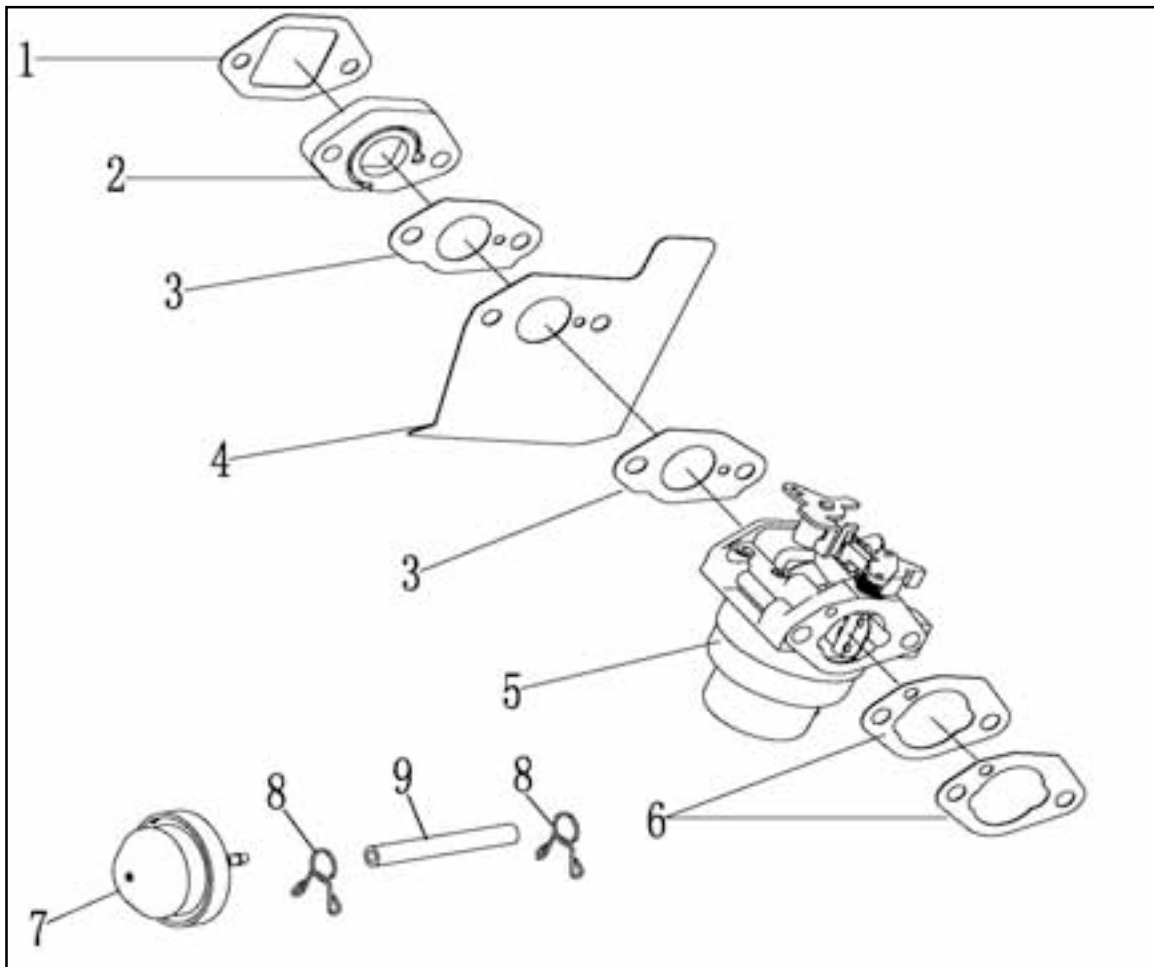


## Air Filter Assembly



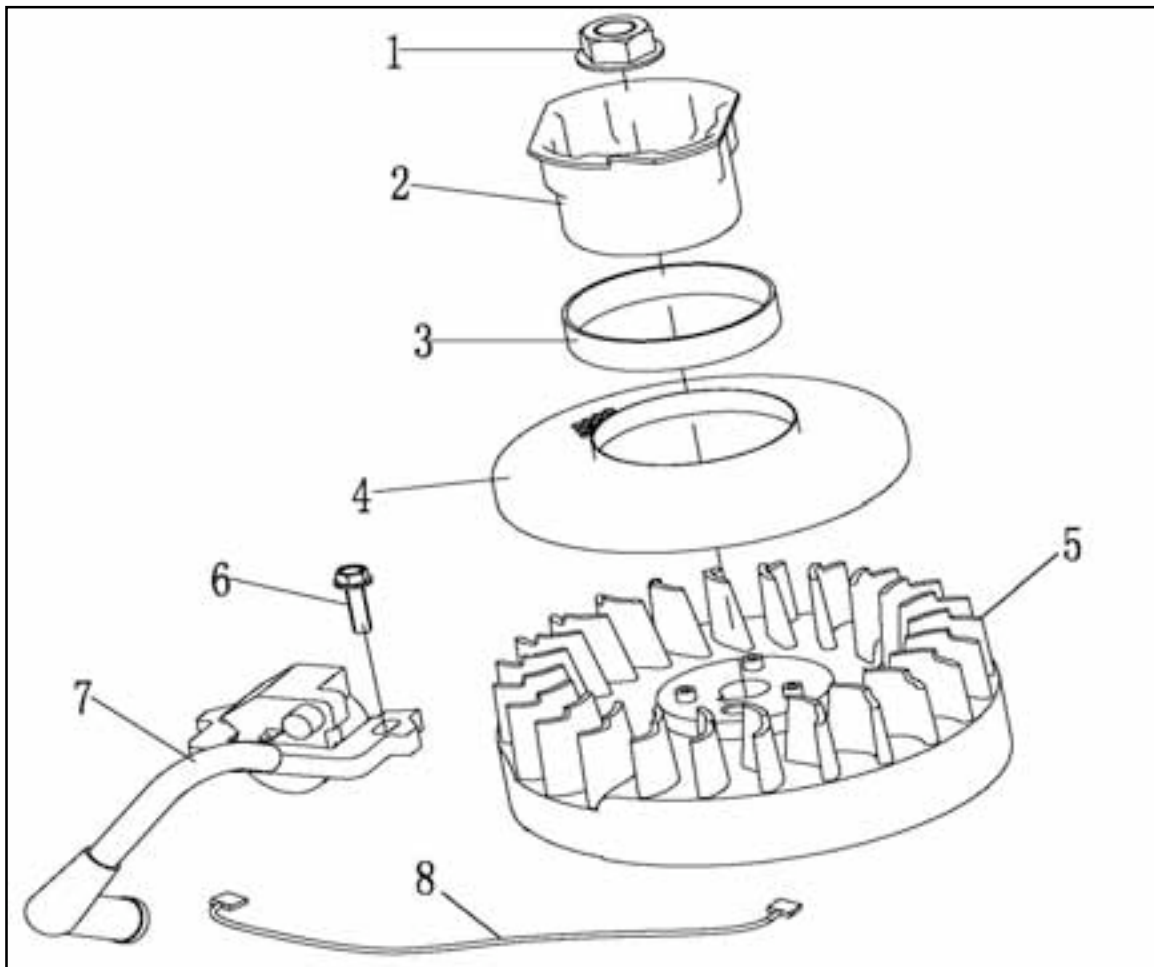
REF. NO.	NAME	PART NO.	QTY
1	Air Filter Element	A100827	1
2	Air Filter Housing Assembly	A100673	1
2.1	Label, Filter Service	A101097	1
2.2	Air Filter Cover	A100853	1
2.3	Air Filter Shell	A100861	1
2.4	Label, Primer	A101098	1
3	Bolt, M6x14	A100663	1
4	Nut, M6	A200028	2

## Carburetor Assembly



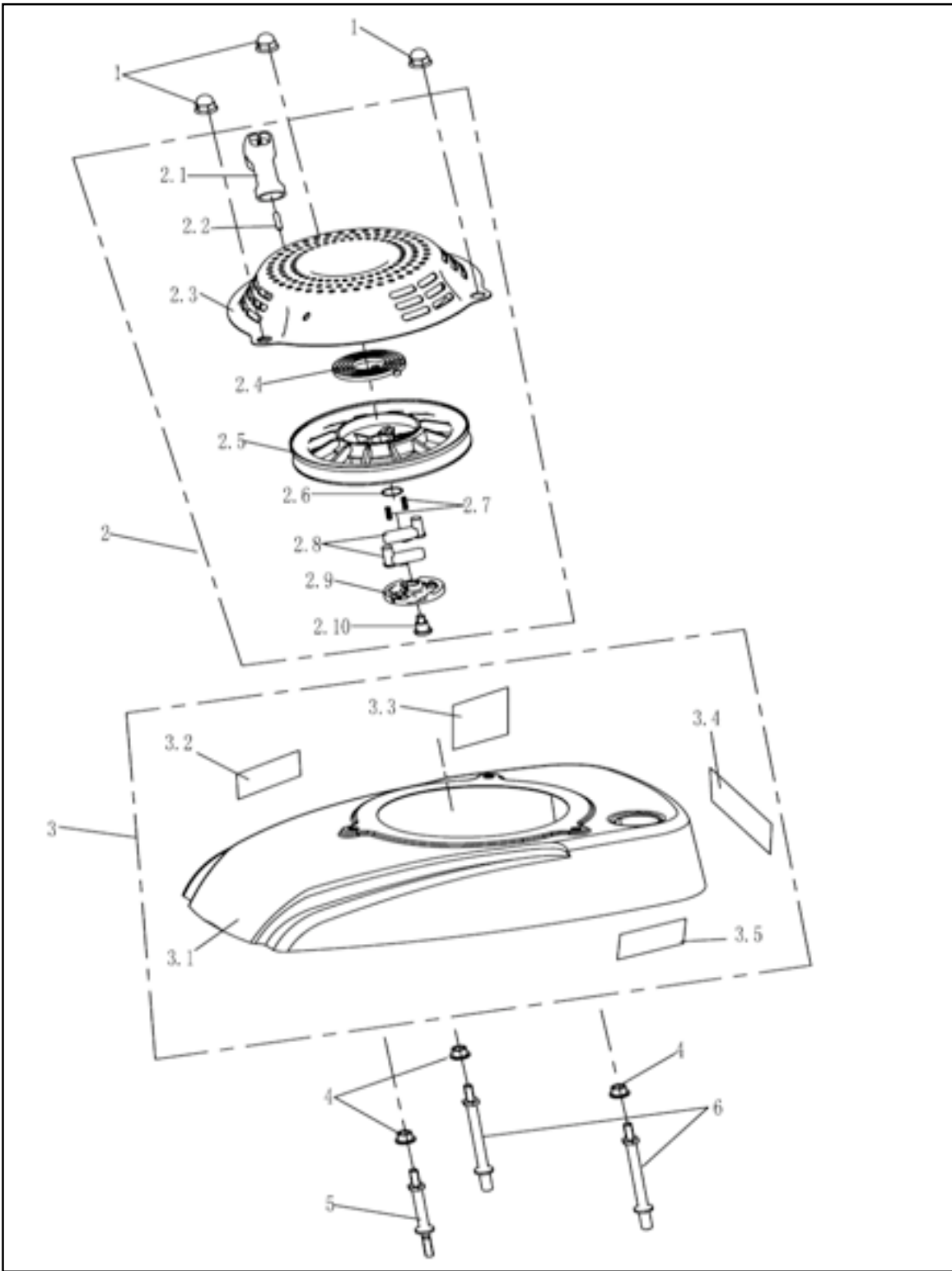
REF. NO.	NAME	PART NO.	QTY
1	Paper Gasket (I)	A100668	1
2	Carburetor Joint	A200027	1
3	Paper Gasket (II)	A100669	2
4	Shield	A100670	1
5	Carburetor	A100671	1
6	Paper Gasket (III)	A100672	2
7	Primer Bulb	A101096	1
8	Clamp, Fuel Line, ø 6.5	A100677	2
9	Fuel Line	A100678	1

## Ignition System Assembly



REF. NO.	NAME	PART NO.	QTY
1	Fly Wheel Fixing Nut, M14×1.5	A200092	1
2	Start-up Ratchet Gear	A200093	1
3	Work Protecting Wire Net	A200094	1
4	Start-up Protecting Wire Net	A200095	1
5	Fly Wheel	A200096	1
6	Screw	A200100	1
7	Ignition Coil	A100687	1
8	Flameout Wire	A200101	1

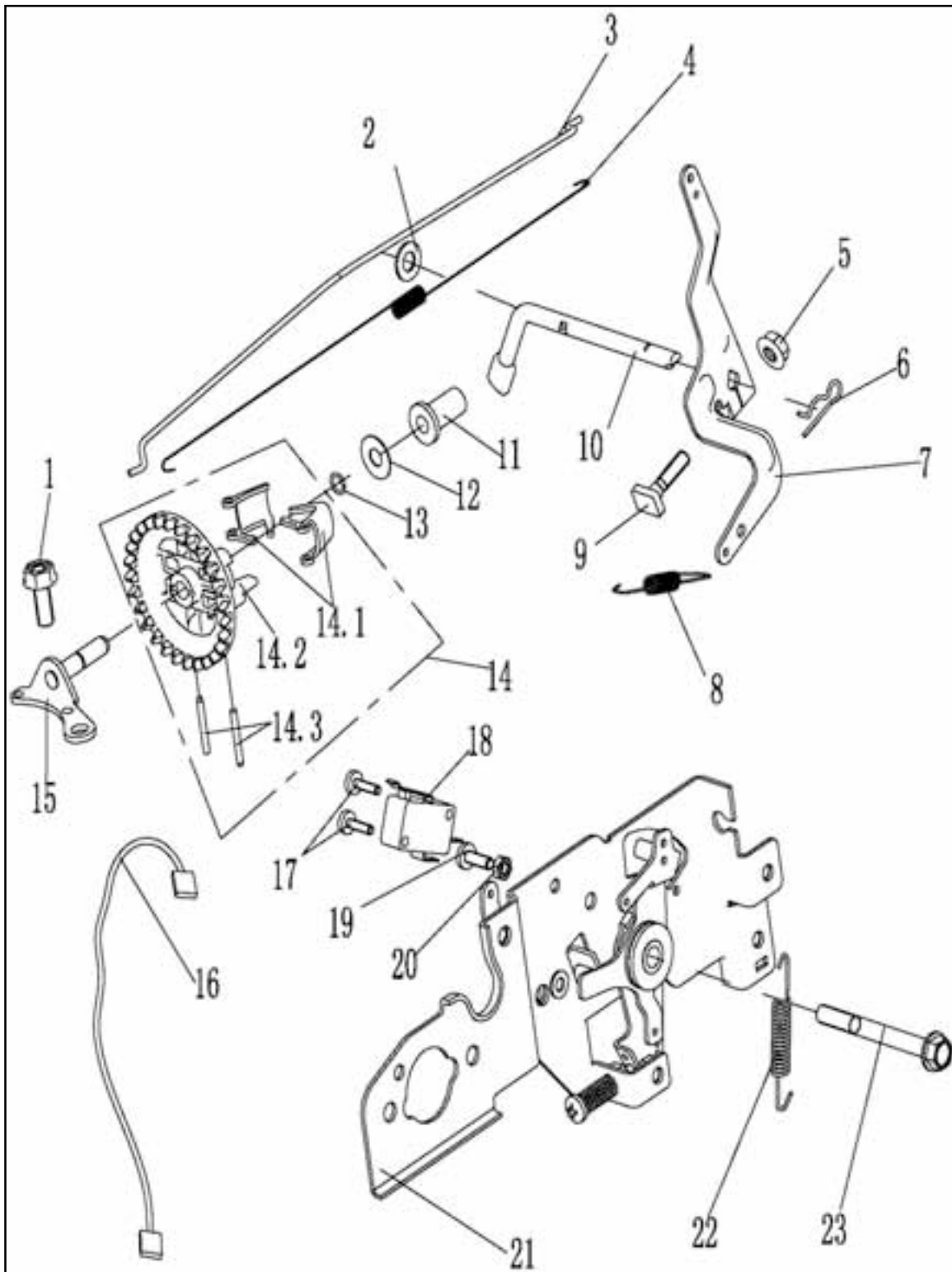
# Engine Cover Assembly



## Engine Cover Assembly

REF. NO.	NAME	PART NO.	QTY
1	Acorn Nut	A200116	3
2	Starter Assembly	A101087	1
2.1	Handle, Recoil Starter	A100980	1
2.2	Starter Rope	A100698	1
2.3	Starter Cover	A100696	1
2.4	Wind Spring	A100617	1
2.5	Starter Reel	A100694	1
2.6	Circlip	A100693	1
2.7	Compression Spring	A100692	2
2.8	Ratchet	A100691	2
2.9	Guide Disc	A100690	1
2.10	Bolt	A100689	1
3	Engine Shield Assembly	A101088	1
3.1	Engine Shield	For Reference Only	1
3.2	Label, Hot Surface	A100978	1
3.3	Label, Oil Fill	A101089	1
3.4	Label, Debris Warning	A101090	1
3.5	Label, EPA	A101091	1
4	Bolt Hole Cover	A100799	3
5	Double End Stud	A100797	1
6	Double End Stud	A100798	2

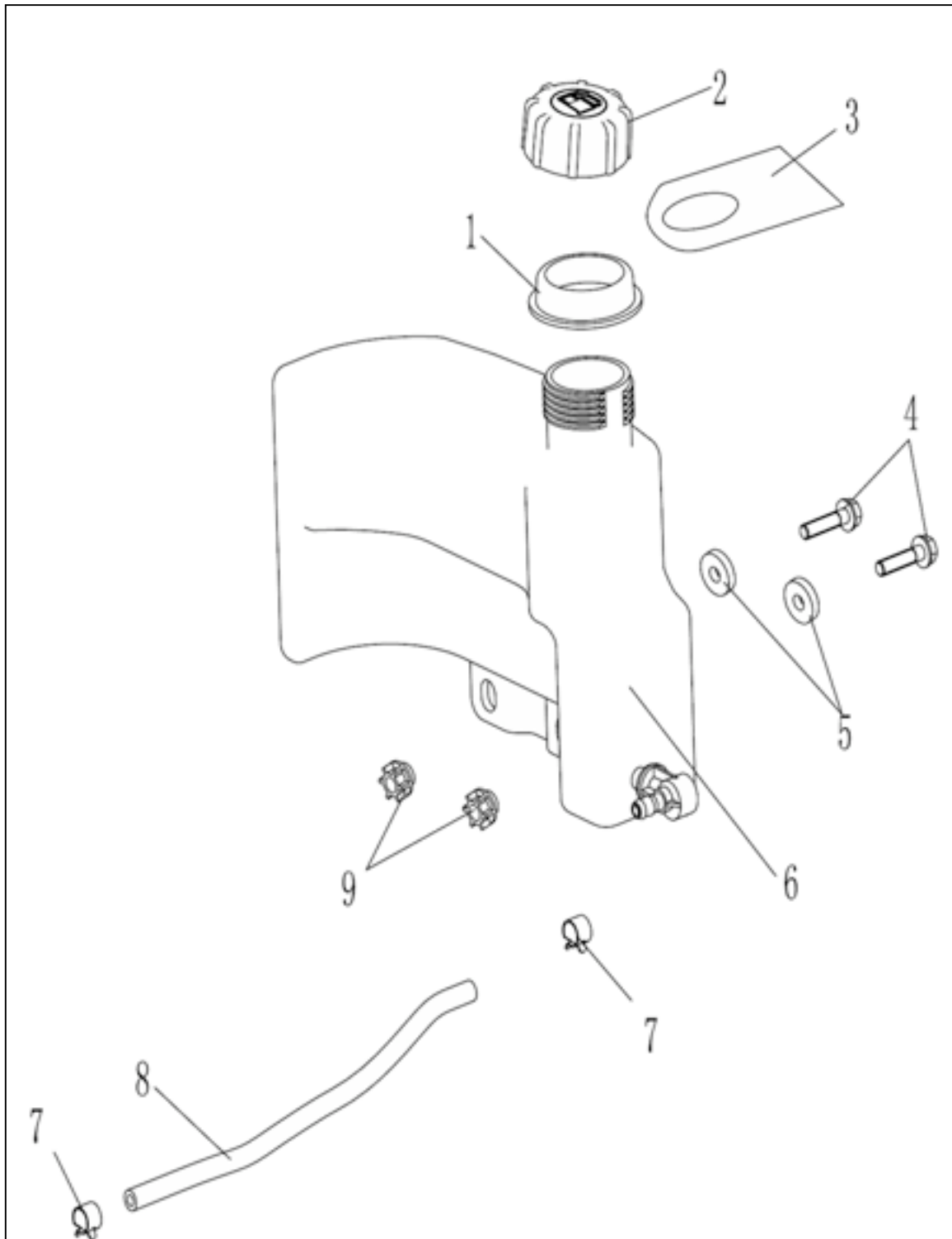
# Governor Assembly



## Governor Assembly

REF. NO.	NAME	PART NO.	QTY
1	Bolt, M6x12	A100657	1
2	Gasket	A200086	1
3	Link, Mechanical Governor (II)	A200085	1
4	Tension Spring (II)	A200084	1
5	Nut, M6	A100795	1
6	Hair Pin	A200082	1
7	Arm, Governor	A200081	1
8	Tension Spring (I)	A200080	1
9	Coach Bolt	A200079	1
10	Crank, Governor	A200078	1
11	Bushing	A200077	1
12	Washer 3	A200075	1
13	Retaining Ring	A200074	1
14	Governor Sub Assembly	A100830	1
14.1	Pawl	For Reference Only	2
14.2	Body, Governor	For Reference Only	1
14.3	Pin	For Reference Only	2
15	Mount Bracket & Axle	A200072	1
16	Grounding Flameout Wire	A200063	1
17	Bolt, M3x12	A200069	2
18	Switch, Grounding	A200068	1
19	Bolt, M4x8	A200070	1
20	Nut, M4	A200067	1
21	Governor Control Panel	A200066	1
22	Controller Tension Spring	A200065	1
23	Bolt, M6x60	A200064	1

# Fuel Tank Assembly





## Fuel Tank Assembly

REF. NO.	NAME	PART NO.	QTY
1	Position Fix Ring	A200091	1
2	Fuel Tank Cap	A101074	1
3	Fuel Tank - Oil Hang Tag	A101075	1
4	Bolt, M6x14	A100663	2
5	Washer, Heat Insulating	A200090	2
6	Fuel Tank	A101076	1
7	Clamp, Fuel Line	A100679	2
8	Fuel Line	A100680	1
9	Spacer, Heat insulating	A200087	2