

OWNER'S MANUAL

# 6 in 1 MULTI TOOL

4-stroke Engine











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# WARNINGS

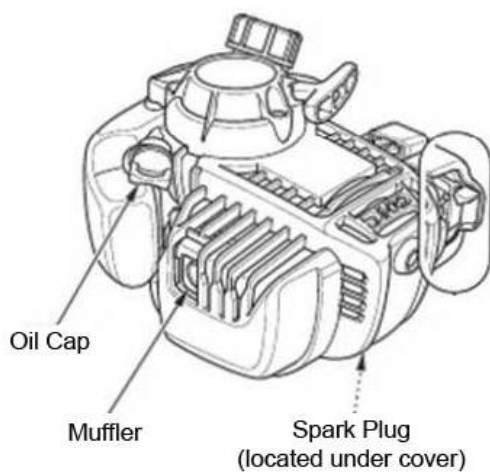
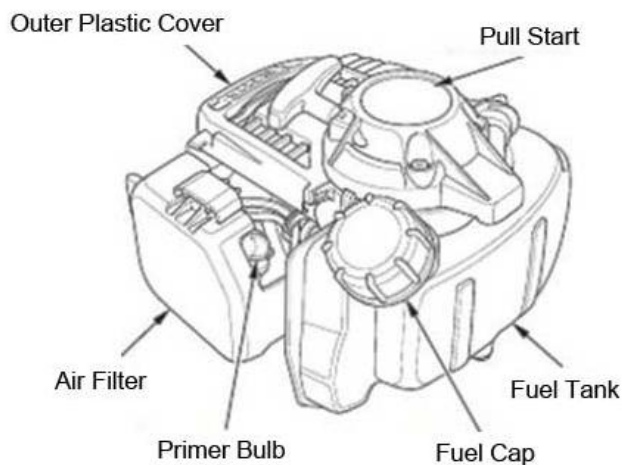
	<p>This symbol indicates important safety instructions which, if not followed, could endanger personal safety and/or property. Read and follow all instructions in this manual before attempting to operate this machine. Failure to comply with these instructions may result in personal injury. When you see this symbol—heed its warning.</p>
	<p>Read the owner's manual thoroughly before operating this machine. Ensure that you understand and follow all instructions on the machine and in the manual before attempting to assemble and operate.</p>
	<p>Wear ear &amp; eye protection when operating this machine.</p>
	<p>Wear foot protection when operating this machine.</p>
	<p>Wear safety gloves when operating this machine.</p>
	<p><b>CARBON MONOXIDE GAS</b></p> <p>Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.</p>

	<p>This machine has a rotating cutting blade capable of amputating hands and feet and throwing objects. Keep hands and feet out of openings while machine is running. Failure to observe these safety instructions could result in serious injury or death.</p>
	<p>Beware of thrown objects, which can ricochet causing serious injury to the eyes. Always wear eye &amp; ear protection when operating.</p>
 <b>15m</b>	<p>Keep bystanders, helpers, pets, and children at least 15m from the machine while it is in operation. Stop machine if anyone enters the area.</p>
	<p>Gasoline is extremely flammable and the vapors are explosive. Serious personal injury can occur when gasoline is spilled on you or your clothing, which can ignite. In the event of a gasoline spill, wash your skin and change clothes immediately.</p>
	<p>Never wear loose clothes or long jewelry and keep your long hair secured when operating machine. Never operate this machine in bare feet or sandals.</p> <p>Never use machine on a slope or hard smooth floor.</p>

# Specifications

<b>Model</b>	<b>BBT-5IN1-4ST</b>
Engine Type	4-stroke Overhead Camshaft Single Cylinder
Displacement	36cc
Fuel Type	Unleaded 95 octane or higher <i>(do not use ethanol in this machine)</i>
Fuel Tank Capacity	Approx. 650ml
Fuel Consumption	360g / kWh
Oil Type	SAE30
Oil Capacity	Approx. 100ml
Starter Type	Recoil Start
Max. Output	1.2kw at 7,000 rpm
Max. Torque	1.9Nm at 5,500 rpm

# Components



# Safety Precautions

- All users must ensure they understand how to operate all of the controls of the machine and learn how to stop the engine quickly in case of an emergency. Also make sure the user receives adequate instructions before operation.
- Do not allow children to operate this machine and keep children and pets away from the area when operating.
- The engines exhaust contains carbon monoxide, which is poisonous. Do not run engine without proper ventilation and never operate indoors.
- During operation, the engine and exhaust become very hot so users must exercise caution to avoid burns. Keep flammable materials away, and do not place anything on the engine while running. Keep the engine at least 1 metre (3 feet) away from building and other equipment during operation.
- Read this user manual in full before attempting to operate this machine.



# Assembly Instructions

## BEFORE OPERATING THIS UNIT:

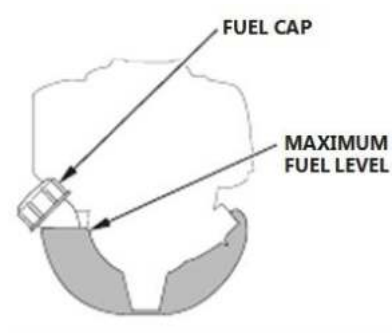
### FUEL

We recommend that the use of ethanol fuels is avoided with your BBT four stroke engine. To get the best possible performance from your engine, use premium unleaded fuel only.

**⚠ WARNING**

Petrol is highly flammable and explosive, and you can be burned or seriously injured when refueling.

- Stop engine and keep heat, sparks, and flame away.
- Refuel only outdoors.
- Wipe up spills immediately.



It is also a good idea to drain the fuel and give the fuel tank a good clean out every 3 month or after 25hrs of use.

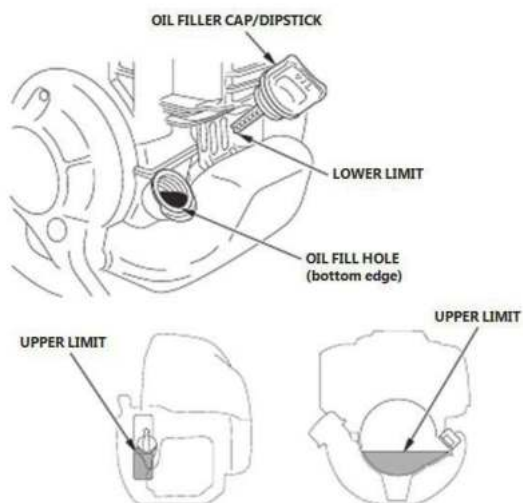
## ENGINE OIL

Oil is a major factor affecting the performance and service life of your BBT four stroke engine. Use a high quality 4-stroke engine oil, we recommend SAE-30 for general use.



### **WARNING**

Check the engine oil level before each use. Operating this unit without sufficient oil will cause serious damage to the engine.



# Operation Instructions

## ⚠ WARNING

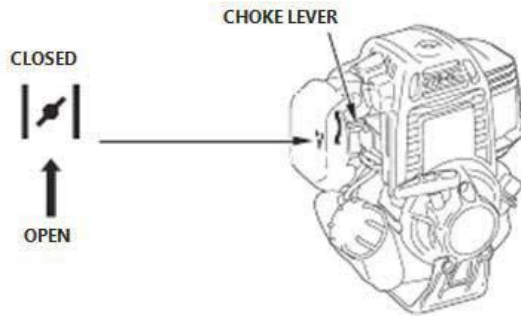
Carbon monoxide gas is toxic. Breathing it can cause unconsciousness and even kill you.

Avoid any areas or actions that expose you to carbon monoxide.

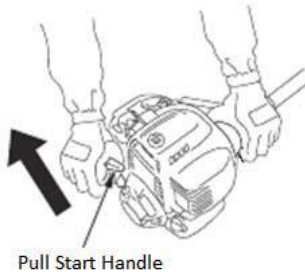
### STARTING

### THE ENGINE

1. To start a cold engine, move the choke lever to CLOSED (up position).
2. Prime the engine by pressing the primer bulb a few times.



3. Ensure the switch on the handle of the first section of the machine is in the ON position.
4. Pull the pull- start out until you feel resistance, the pull firmly, returning the pull start cord to return gently.



## NOTICE

Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

5. If the choke was engaged while starting the engine, slowly dis-engage the choke to the CLOSED position as the engine begins to fire.

## **HOT RESTART**

If the engine is operated at above ambient temperature, then turned off and allowed to sit for a while, it may not start again on the first pull and the starting procedure may need to be restarted.

## **STOPPING THE ENGINE**

To stop the engine in an emergency, simply flick the switch on the handle into the OFF position. Although under regular condition you should fully release the throttle and wait until engine slows down to idle speed before stopping the engine, as stopping the engine at full revs can be damaging.

## Maintenance & Storage

		Each Use	Every 3 Months or 25hrs	Every 6 Months or 50hrs	Every 12 Months or 100hrs	Every 2 Years or 300hrs
<b>Engine</b>	Check Oil Level	X				
	Change Oil		X			
<b>Air Filter</b>	Check & Clean		X			
<b>Spark Plug</b>	Replace				X	
<b>Nuts &amp; Bolts</b>	Check & tighten	X				
<b>Clutch Shoes</b>	Check				X	
<b>Fuel Filter</b>	Check & Clean		X			
	Replace if necessary					X
<b>Fuel Tank</b>	Clean			X		
<b>Fuel Lines</b>	Check & replace if necessary					X
<b>Oil Lines</b>	Check & replace if necessary					X

### TUNE-UP SPECIFICATIONS

Item	Specification
Spark plug gap	0.60 - 0.70 mm
Idle Speed	3,100 ± 200 rpm
Valve Clearance (cold)	IN: 0.08 ± 0.02 mm EX: 0.11 ± 0.02 mm

## AIR FILTER

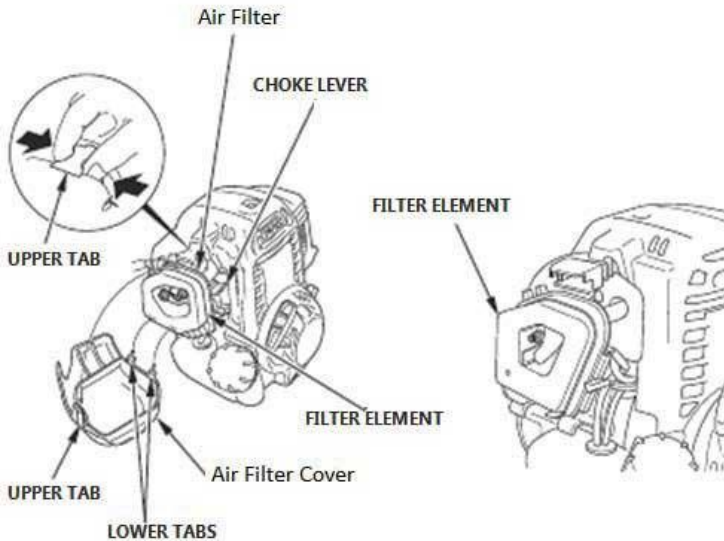
A dirty air filter will restrict air flow to the carburettor, hindering engine performance. If operating in dusty conditions, clean the air filter more often than specified in the maintenance schedule



### WARNING

Operating the engine without an air filter element, or with a damaged air filter element, will allow dirt to contaminate the engine, causing rapid engine wear and voided warranty.

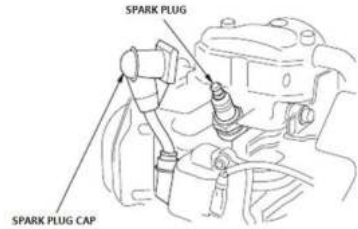
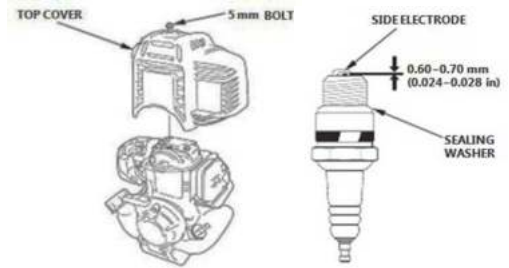
To inspect the air filter, press the latch on the top of the air filter cover to remove it. If upon inspection the air filter is overly dirty, it should be cleaned or replaced.



## SPARK PLUG

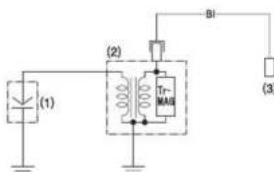
### Removing the spark plug

1. Remove the top cover by loosening the 5mm bolt on top.
2. Disconnect the spark plug cap and remove the spark plug with the provided spark plug spanner.
3. Replace the plug if it is damaged or in very poor condition. Clear away and grime that has built up over the spark plugs terminals. When reinstalling the plug, be sure it is tightened sufficiently as loose spark plugs can overheat and damage your engine.



# Troubleshooting

ENGINE WILL NOT START	Possible Cause	Resolution
1. Check control positions	Choke open	Move lever to CLOSED position unless the engine is warm
	Engine switch in off position	Turn engine to on position
2. Check fuel	Out of fuel	Refuel
	Bad fuel; engine has been re-fuelled with bad petrol	Drain fuel tank & carburettor. Re-fuel with fresh petrol
3. Check coil for spark	Faulty Coil	Remove spark plug & place into coil lead (earth end of plug). Pull units pull start; if there is no spark, replace spark plug. Repeat start sequence; if unit still does not run, contact BBT Service.
4. Remove & inspect spark plug	Spark plug faulty, grimy or improperly gapped	Gap (0.6-0.7mm) or replace spark plug
	Spark plug is wet with petrol (flooded engine)	Allow the spark plug to dry. After drying, install the spark plug & repeat start sequence
5. Contact BBT Service for Assistance		
ENGINE LACKS POWER		
1. Check air filter	Filter element restricted	Clean or replace filter element
2. Check fuel	Bad fuel; engine has been re-fuelled with bad petrol	Drain fuel tank & carburettor. Refuel with fresh Petrol
3. Check Oil level	Not enough or too much oil	Unit operates with 80-100ml of oil. If you have over filled, drain & fill to this level. If you do not have enough, top up before proceeding with start sequence.
4. Contact BBT Service for Assistance		

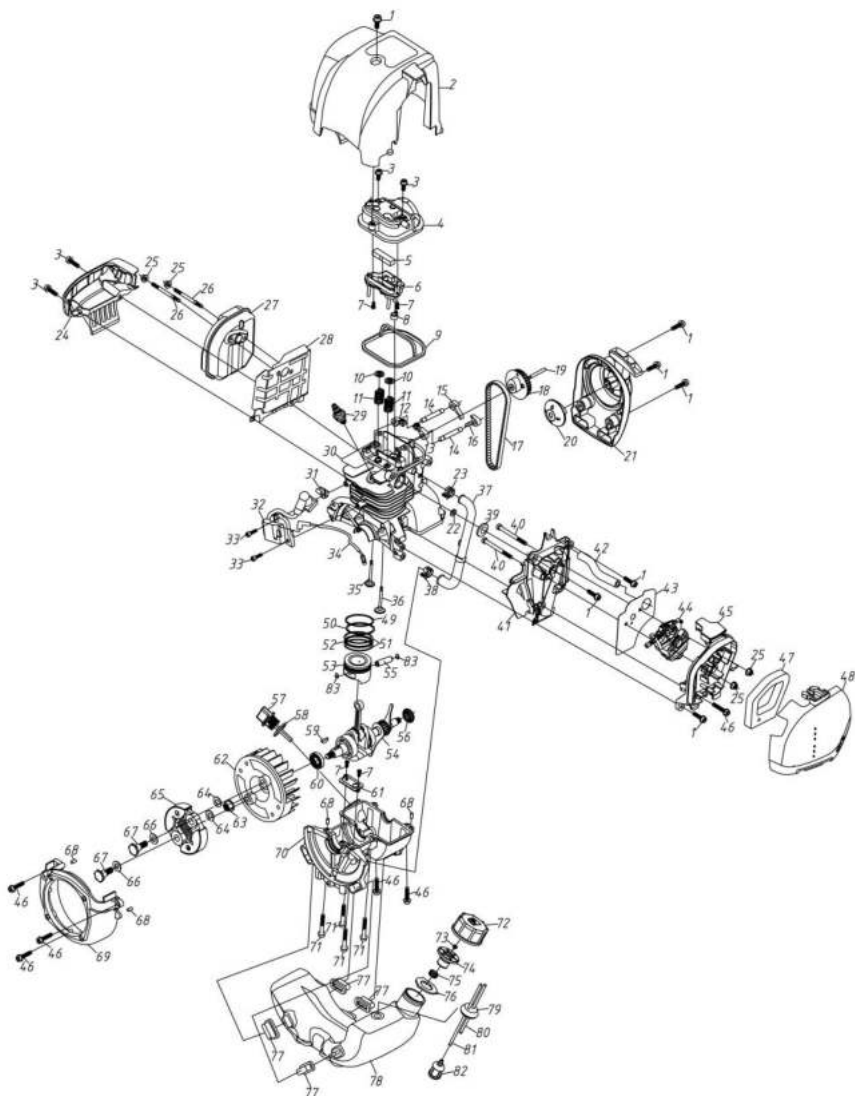


- (1) SPARK PLUG  
 (2) IGNITION COIL  
 (3) Engine switch on the equipment powered by the engine.  
 (4) ENGINE SWITCH



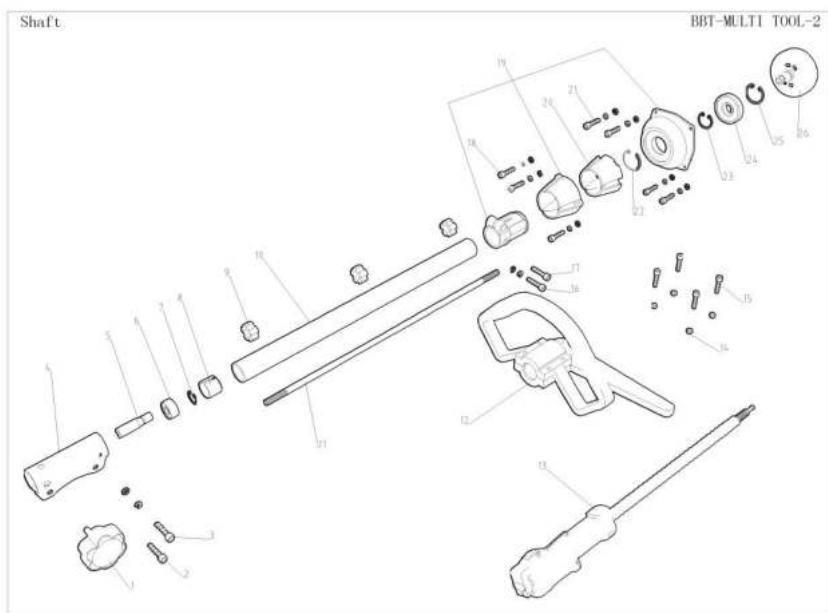
# Spare Parts

BBT MULTI TOOL - 4 STROKE ENGINE



#	PART DESCRIPTION	QTY
1	Screw M5*15	7
2	Cylinder Cover	1
3	Screw M5*12	4
4	Cylinder Valve Cover	1
5	Oil Gas Separator	1
6	Inside Cover	1
7	Screw M4*8	4
8	Rubber Cushion	1
9	Rubber Cushion	1
10	Valve Spring Seat	2
11	Valve Spring	2
12	Exhaust Valve Rocker	1
13	Inlet Valve Rocker	1
14	Rocker Pin	2
15	Exhaust Rocker	1
16	Inlet Rocker	1
17	Synchronous Belt	1
18	Cam Wheel	1
19	Camshaft	1
20	Start Reel	1
21	Starter	1
22	Admitting Gasket	1
23	Holding-Down Clip	1
24	Muffler Baffle	1
25	Nut M5	4
26	Double-Edged Bolt	2
27	Muffler	1
28	Muffler Baffle	1
29	Spark Plug	1
30	Cylinder	1
31	Fastener	1
32	Ignition Stator	1
33	Screw M4*14	2
34	Stopping Wire	1
35	Exhaust Valve	1
36	Inlet Valve	1
37	Balancing Pressure Pipe	1
38	Holding-Down Clip	1
39	O-Seal Ring	1
40	Screw M5*55	2
41	Admitting Pipe	1
42	Blast Pipe	1

#	PART DESCRIPTION	QTY
43	Gasket	1
44	Carburettor	1
45	Cleaner Inside Cover	1
46	Screw M5*22	6
47	Filter Net	1
48	Air Filter Cover	1
49	No1.Piston Ring	1
50	No2.Piston Ring	1
51	Oil Scraper Ring	2
52	Linder Ring	1
53	Piston	1
54	Crankshaft	1
55	Piston Pin	1
56	Oil Seat	1
57	Oil Scale	1
58	O-Seal Ring 14*2.65	1
59	Key 3*5*13	1
60	Oil Seal	1
61	Reed Valve	1
62	Magneto Rotor Comp	1
63	Nut M8	1
64	Washer	2
65	Clutch	1
66	Washer	2
67	Screw Pin	2
68	Pin B4*8	4
69	Magneto Cover	1
70	Crankcase	1
71	Screw M5*32	4
72	Fuel Tank Lid	1
73	Air Admission Valve	1
74	Inside Cover	1
75	Shell Cover	1
76	Airproof Gasket	1
77	Rubber Cushion	4
78	Fuel Tank Lid	1
79	Plug	1
80	Fuel Return Pipe	1
81	Fuel Suction Pipe	1
82	Filter	1
83	Ring	2

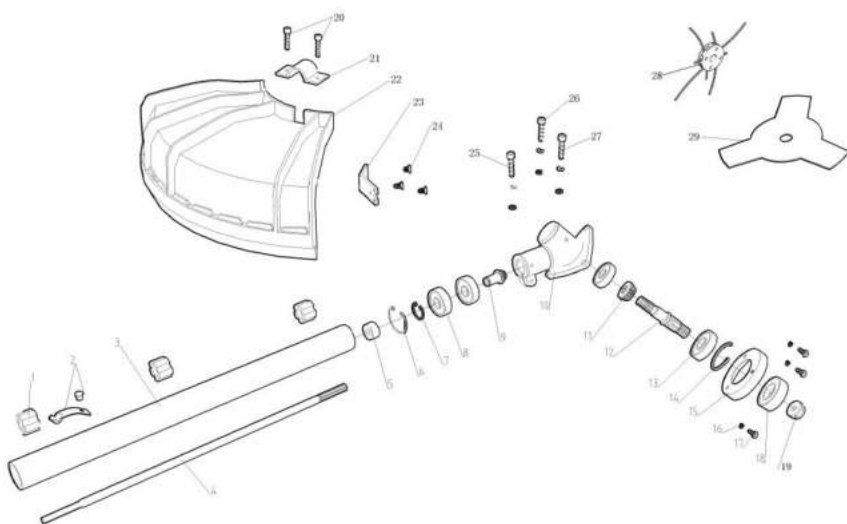


#	PART DESCRIPTION	QTY
1	Knob Bolts	1
2	Bolt	1
3	Bolt Set	1
4	Connector	1
5	Joint	1
6	Bearing	1
7	Snap Ring	1
8	Snap Ring	1
9	Oil-Retaining Bearing	3
10	Aluminium Pole	1
11	Drive Shaft	1
12	Handle Assy	1
13	Switch Assy	1

#	PART DESCRIPTION	QTY
14	Nut	4
15	Bolt	4
16	Bolt Set	1
17	Bolt	1
18	Bolt Set	1
19	Cover Set	3
20	Cover Suspension Seat	1
21	Bolt Set	4
22	Snap Ring	1
23	Snap Ring	1
24	Bearing	1
25	Snap Ring	1
26	Drum	1

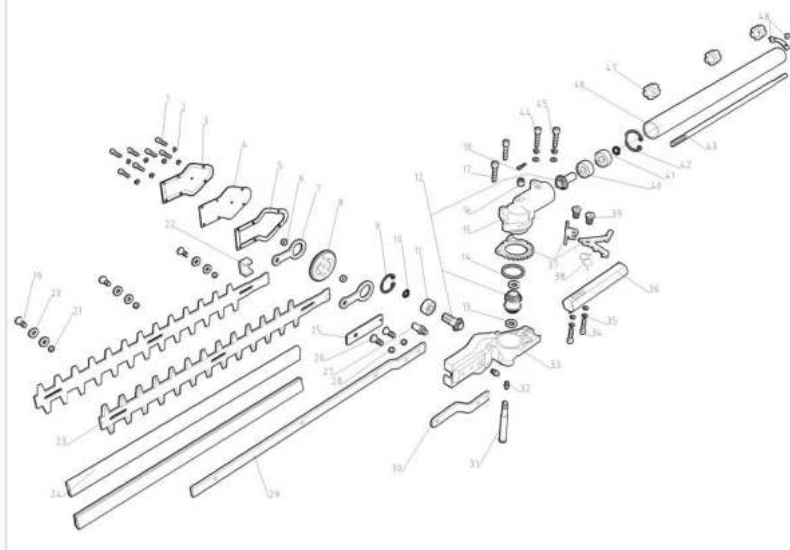
## Brush Cutter Attachment

BBT-MULTI TOOL-5



#	PART DESCRIPTION	QTY
1	Oil-Retaining Bearing	3
2	Liu Nails	1
3	Shaft	1
4	Inner Drive Shaft	1
5	Reducer	1
6	Snap Ring	1
7	Snap Ring	1
8	6000rs Bearing	3
9	Gear	1
10	Gear Box	1
11	Gear	1
12	Output Shaft	1
13	6002rs Bearing	1
14	Snap Ring	1
15	Protect Cover	1
16	Spring Gasket	3

#	PART DESCRIPTION	QTY
17	Bolt	3
18	Down Cover	1
19	Up Cover	1
20	Protect Cover	1
21	Screw	1
22	Bolt	2
23	Cover	1
24	Guard	1
25	Small Blade	1
26	Bolt	3
27	Bolt Set	1
28	Bolt Set	1
29	Bolt Set	1
30	Cutter Head	1
31	3t Blade	1

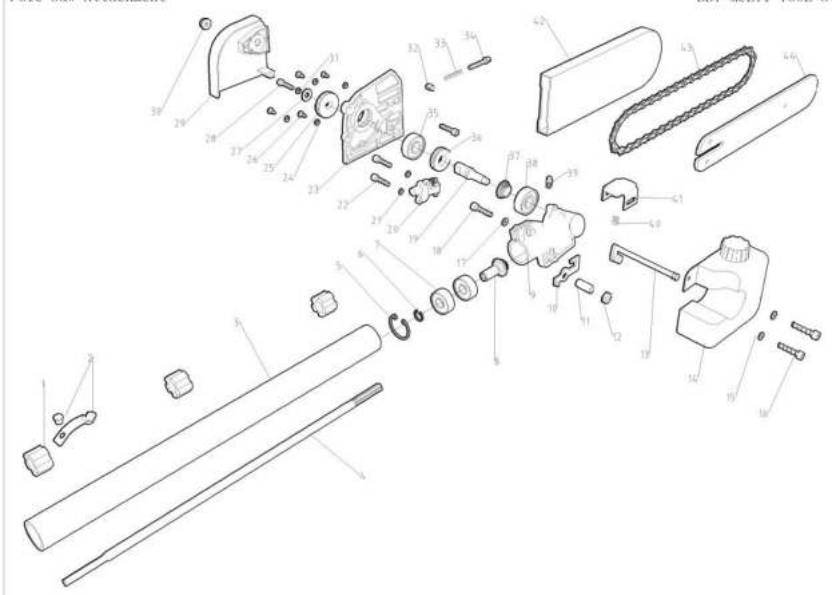


#	PART DESCRIPTION	QTY
1	Bolt	7
2	Spring Gasket	7
3	Up Cover	1
4	Down Cover	1
5	Body Gasket	1
6	Block Circle	2
7	Collar	2
8	Big Gear	1
9	Snap Ring	1
10	Snap Ring	1
11	Bearing	1
12	Gear Set	1
13	Gasket	2
14	"O" Gasket	1
15	Gearbox	1
16	Nut	1
17	Bolt	2
18	Pin	1
19	Bolt	3
20	Gasket	6
21	Nut	3
22	Gasket	1
23	Blade	2
24	Blade Cover	2

#	PART DESCRIPTION	QTY
25	Spring Iron	1
26	Bolt	2
27	Fixed Shaft	1
28	Nut	2
29	Blade Stents	1
30	Blade Cover	1
31	Shaft	1
32	Brass Nozzle	2
33	Gearbox	1
34	Bolt	2
35	Spring Gasket	4
36	Handle Assy	1
37	Gear Set	1
38	Spring	1
39	Bolt	2
40	Bearing	2
41	Snap Ring	1
42	Snap Ring	1
43	Drive Shaft	1
44	Bolt Set	1
45	Bolt Set	1
46	Aluminium Pole745	1
47	Oil-Retaining Bearing	3
48	Liu Nails	1

Pole Saw Attachment

BBT-MULTI TOOL-3



#	PART DESCRIPTION	QTY
1	Oil-Retaining Bearing	3
2	Liu Nails	1
3	Aluminium Pole 745	1
4	Drive Shaft 762	1
5	Snap Ring	1
6	Snap Ring	1
7	Bearing 609z	2
8	Gear	1
9	Gearbox	1
10	Lock Blocks	1
11	Pin Set	1
12	Nut	1
13	Oil Tank Pipe	1
14	Oil Tank	1
15	Flat Mat	2
16	Bolt	2
17	Flat Mat	1
18	Bolt	2
19	Output Shaft	1
20	Oil Pump	1
21	Spring Gasket	2
22	Bolt	2

#	PART DESCRIPTION	QTY
23	Gearbox Cover	1
24	Spring Gasket	4
25	Sprocket	1
26	Screw	4
27	Flat Mat	1
28	Bolt	1
29	Side Cover	1
30	Flange Nuts	1
31	Spring Gasket	1
32	Pin	1
33	Spring	1
34	Screw	1
35	Bearing 6001rs	1
36	Worm	1
37	Gear	1
38	Bearing	1
39	Brass Nozzle	1
40	Spring	1
41	Linking Piece	1
42	Bar Cover	1
43	Chain	1
44	Bar	1



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