

# **GASOLINE PILING DRIVER**



# **INSTRUCTION MANUAL**

# User Manual

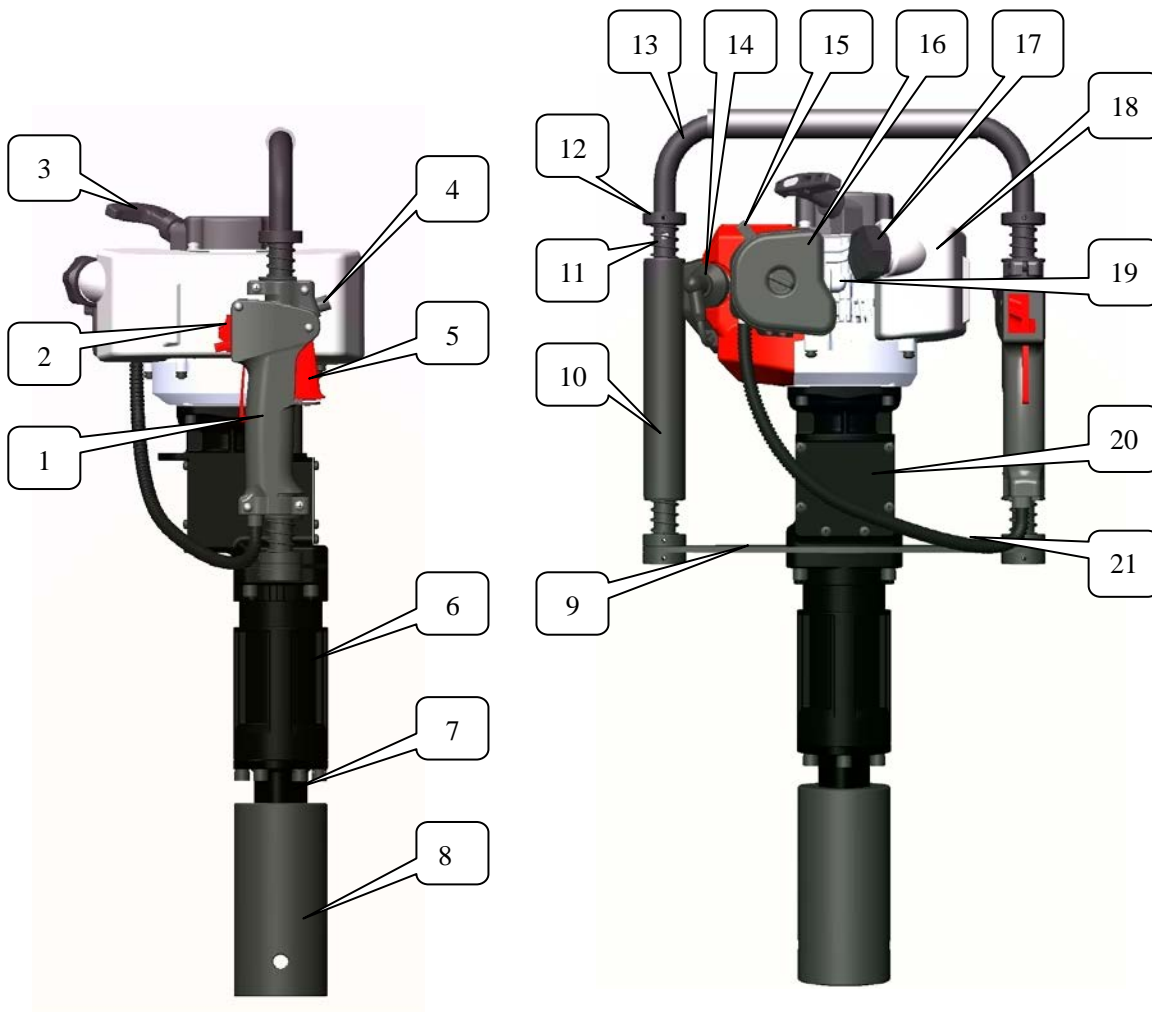
Congratulation on you chooses our gasoline pile driver. This gasoline pile driver is the light- weighted and low displacement of small construction machinery. It surpasses conventional design and brings significant and economic benefits to the user. It has energy saving, and the advantages of easy to use. Reasonable maintenance measures can bring this product work efficiency, longer life to the maximum. For your safety, please follow the instructions on the safe operation of the rules of operation and technical maintenance, or will cause harm to your personal safety or damage the machine.

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## I Name of major part

No.	Parts Name	No.	Parts Name	No.	Parts Name
1	Combination Switch	2	Stop Switch	3	Starter Handle
4	Adjust Switch	5	Throttle Switch	6	Hammer Case
7	Hammer Socket	8	Piling Socket	9	Support Plate
10	Grip	11	Damping Spring	12	Positioning Sleeve
13	Handle	14	Spark Plug	15	Intake Switch
16	Air Filter	17	Oil Tank Cap	18	Oil Tank
19	Fuel Bubble	20	Steel Cover	21	Throttle Cable



**Fig 1**

**Fig 2**

## II Instruction of safe operation

1. The operator need wear slip-resistant safety shoes. Appropriate clothing. Wear goggles and helmet, wear earplugs for a long time operation.
2. Balance body when you operation the machine. The user should stand behind the support handle to operate.

- Prohibit smoking, eating and chatting when you operate the machine.
3. After starting the machine, avoid to operation for single hand.
  4. When you lift machine, the first control you need dial to reach the minimum scale, let the machine to slow down.
  5. Tell idlers away from the work area avoid injury. The process of using machine may lead to gravel flying to idler.
  6. Select medium-speed gasoline pile driver to run for the best.
  7. Maintain the handles dry, clean, no oil or fuel mixture.
  8. Stop the operation midway; you must turn off the engine.
  9. Every time please check normal fastening screws of the connector before using. If loose, you must tighten the screws to use.
  10. Prohibition only pure gasoline (without two-stroke engine oil) for fuel.
  11. Gasoline is highly flammable, so to refuel in a well ventilated environment. When you add oil, please stop gasoline engine.
  12. Do not add oil too full. Do not leave the fuel filler in neck part of machine. If overflow or spilled fuel .wait the fuel all volatilize, then you can start machine.
  13. After refueling, tighten the oil lid. Please check frequently whether the fuel tank is damaged to leak, if found damaged, please stop and replace immediately.
  14. Reserve oil in storage areas. Remove all the root causes of fire or cause sparks.
  15. In closed areas, such as tunnels, trenches and deep groove in the work environment when using gasoline pile driver to ensure sufficient fresh air, exhaust gas containing carbon monoxide dangers, should bring electric fan for air flow.
  16. Forbid quickly accelerate or brake, so as not to damage the machine.
  17. Transfer site long-distance transport, should be emptying the tank.
  18. Prohibit substandard maintenance staff dismount gasoline pile driver, to avoid structural damage to parts, resulting in shortened life of gasoline pile driver and accidents.

### **III Main use and feature**

#### **Use**

It can use in farm, orchard fence or barrier of piling works.

#### **Features**

- 1 It is the world's lightest weight, lowest displacement engine type handheld gasoline pile driver.
- 2 It has ergonomics design, minimizing the hands of vibration, has significant control of convenience and comfortable, the operator can shovel digging a 360 degree rotation.
- 3 It can regulate the number of impact energy and impact, apply for a variety of pile less than 65mm in diameter.
- 4 dvantage: If you use our machine, then you can ignore the trouble of the heavy equipments like diesel engine, air compressor, trucking-lorry.
- 5 The handle of machine is with rubber sponge, greatly reduce the recoil force of the machine, and improve the comfortable for the user.

## IV Prepared work before using

### Fuel

The general gasoline and the two-stroke oil mix.

Recommended mixing ratio

Conditions	gasoline :engine oil
Work within 20 hours	20:1
Work after 20 hours	25:1

- 1 Prohibit the use of pure gasoline (no refueling two-stroke engine oil )for fuel
- 2 Well-ventilated place to add fuel
- 3 Do not add too full fuel in the fuel tank. Do not leave fuel in the neck. If any fuel spill, please completely remove or evaporate before starting the gasoline engine
- 4 After refueling, tighten the fuel tank cap.

### V Start

1. Before first starting of the new machine, repeat press the transparent fuel bubble (See Fig.3) to fully fill the Carburetor with fuel.

(Close the air vent when the engine is in the state of cooling, but open the air vent only when the engine is heated)

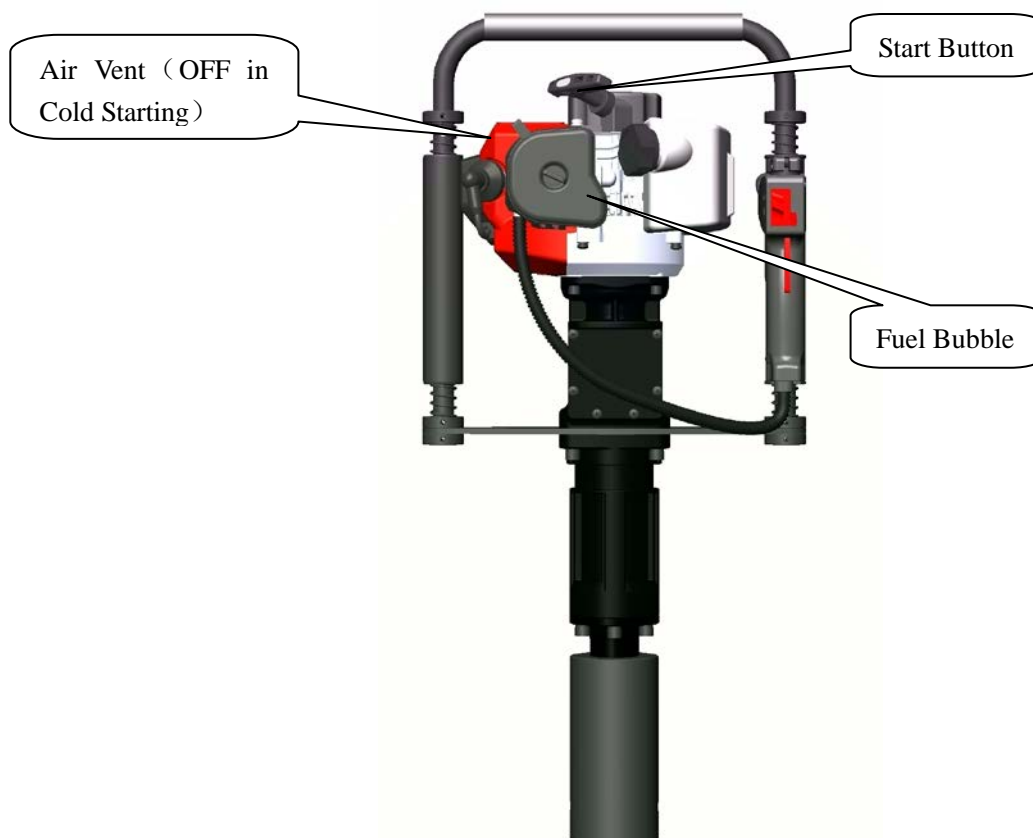


Fig.3

2. Put the machine flat on the floor. Hold the operation handle with one of your hands and quickly pull the pulling handle for about 50cm with the other hand. Do not let the pulling handle go back freely in your repeat pulling, but hold it and put it down with its resilience to protect the starter.
3. Open the air vent completely when the gasoline engine is started.

## VI Run

1. After gasoline engine start, it should be low speed for 3 to 5 minutes, warm-up operation for the machine. When the gasoline engine warm enough, according to the required impact energy to pull appropriate regulatory position.

Note: the new gasoline pile driver use of the first 24 hours, the workload should be in low or medium-speed in order to extent the service life. Do not use the biggest speed accelerator.

3. Select medium-speed gasoline engine run for the best.

4. Prohibit use gasoline pile driver under the non-breaking with high speed operation.

## VII Stop machine

1. Pull scale position 0, idle running for 3-5 minutes.

2. Press the flameout button to stop, flameout button see Fig.1

## VIII Technical maintenance

### 1 Air Filter

Check air filter regularly. Dust block on the cover of air filter will reduce engine power, cause cylinder short life. If the filter is very dirty, bur a mild detergent with warm water, wring dry, after cleaning the filter should drop a few of oil on the dry and then install the air filter. Filter should be replaced if damaged, particularly if in the environment of much dust should be shorted maintenance cycle.

### 2 Fuel filter

If the fuel filter clogging, there will be speed slow, weak impact of the phenomenon of gasoline pile driver. Method: ① Open the tank lid with metal hook take the fuel filter cleaning from the tank ②When cleaning the fuel filter, at same time clean the fuel tank.

### 3 Carburetor

Fuel tank and carburetor are generally left residual oil. A long time pass the residual oil will come into rubbish. And the rubbish will plug the oil line, causing the engine does not work. Therefore, when the machine is not used more than one week, be sure to completely take the fuel out. Clear oil method: Repeat pressing the carburetor fuel bubble to drain the oil.

### 4 Spark plug

To ensure normal operation of the engine, spark plug gap to be moderate, with a wire brush to remove sediment. Reasonable spark plug gap 0.5-0.7 mm. See Fig.4

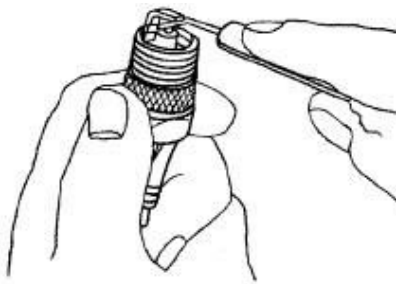


Fig.4

### 5 Muffler

Regular maintenance muffler, use a screwdriver to remove rubbish on the body or the rubbish on the coke muffler exhaust.

### 6 Gearbox Lubrication

Open the gear box cover, lubricated the gear and the connecting rod regularly with lubricating oil.  
Open the hammer socket, lubricated the piston, impact hammer regularly with lubricating oil.

### 7 The cylinder heat sink

Regularly to remove dust, to ensure the cylinder cooling, this gasoline pile driver is air-cooler type, if the cylinder dust accumulates on the heat sink will directly affect the cooling effect.

## IX Failure analysis and troubleshooting methods

### Problems analysis and solving

#### Example 1: difficulties in starting engine in cooling state.

Whether the spark plug is moisture.	→Dry the igniter plug
↓	
Whether the spark plug produces electric spark	→replace the igniter plug
↓	
Too much fuel absorbed	→lessen the fuel supply

#### Example 2: Difficulties in restarting after a sudden stop

Whether fuel runs out or the Carburetor is blocked	→Refill fuel tank or clean the carburetor
↓	
Whether the fuel filter is blocked	→clean the fuel filter
↓	
Too much carbon deposit in igniter plug	→ Remove carbon deposit

#### Example 3: Reluctance in speeding and weakness in power

Carbon deposit cover the entrance of the cylinder or silencer	→ Remove carbon deposit
↓	
Whether the oil tube and the air vent on the fuel Tank cover is blocked	→Clean
↓	
Blockage in air filter	→ Clean the filter

**Example 4: abnormal sound**

Carbon deposit found in combustion chamber	→ Remove carbon deposit
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Serious abrasion in active components	→ Replace
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**Example 5: The machine is working normally, but the efficiency of cracking is very low**

The head of the chisel is attrited badly	→replaced or renew
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Please contact with Sales Agency of the Crusher if your machine needs further mending.

**X Product key data**

Engineer type	36X32mm, Single cylinder, air cooling, 2 stroke
L×W×H(mm)	740×340×260
Fuel	mixing oil(gasoline 25, two-stroke engine oil 1)
Fuel tank capacity	0.9L
Weight	13Kg
ZZ Displacement	32.7CC
Max power and speed	0.9KW/6500r/min
Max torque and speed	1.45N.m/5000r/min
Consumption rate	≤0.50L/h
Impact frequency	1700~2230 BPM
Impact energy	30~45J
Carburetor type	MZ10.7
Spark plug type	L6T
Starter system	Hand pull start

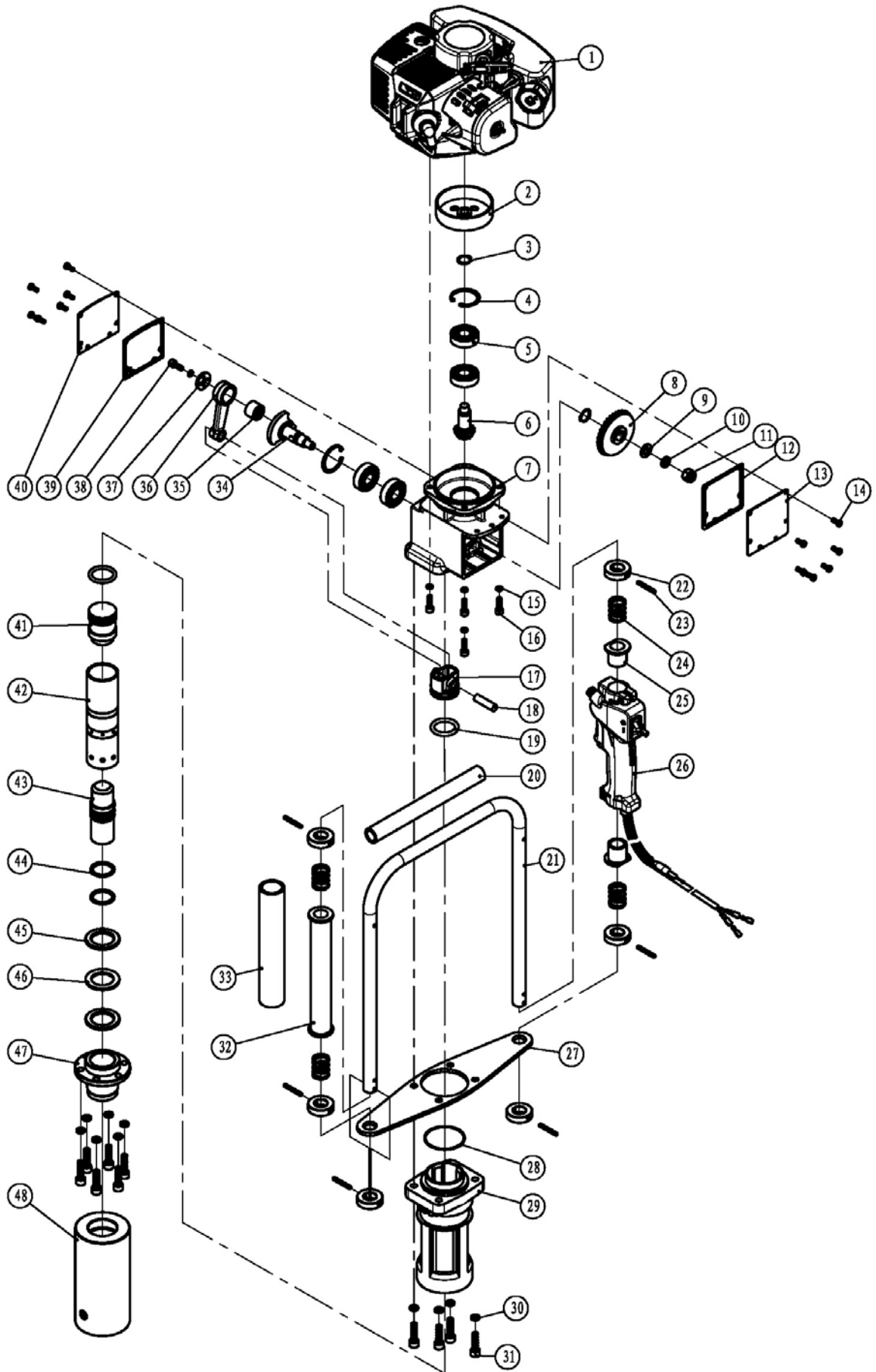


## XI Maintenance Cycle

The following Data are given common use of the product. Suppose it is in worse working condition, such as thick dust in the air or much longer work hours for Crusher, the maintenance cycle should be shortened correspondingly.		Before woke	After work or every day	After Filling oil	Every Week	Every Month	Broken Down	If necessary
The whole machine	outlook check (state, stabilities of screws)	√		√				
	Cleaning		√					
Control handle/stop button	function check	√		√				
Air Filter	Clean				√			√
	Replace						√	
Fuel Filter	Check					√		
	Replace						√	
Petrol Tank/Petrol Tank cover	Clean		√	√				
	Check	√		√				
	Tighten							√
Gear Box/Hammer Box	Clean					√		
	Add oil							√
Lubricating Oil Tank	Check	√						
	Clean					√		
	Fill Oil							√
Silencer	Check					√		
	Remove carbon deposit							√
Cylinder Cooling Fin	Check					√		
	Clean							√
Spark Plug	Check/Adjust Customize the distance between electrodes					√		
	Replace							√
Screw and Nut	Check	√		√				
	Tighten							√

## XII Part list and Exploded View of Gasoline Pile Driver

Parts No.	Description	Q'ty	Parts No.	Description	Q'ty
1	Gasoline Engine	1	41	Hammer	1
2	Inflating Plate	1	42	Cylinder	1
3	Circlips for Shaft A17	2	43	Impact Hammer	1
4	Circlips for Holes A40	2	44	O-Circle	2
5	Deep Groove Ball Bearings 6203-2RZ	4	45	Damping Ring	2
6	Small Gear	1	46	Cushion	1
7	Gearbox	1	47	Hammer Socket	1
8	Big Gear	1	48	Piling Socket	1
9	Washer 10	1			
10	Spring Ring 10	1			
11	Nut M10	1			
12	Right Gasket	1			
13	Right Steel Cover	1			
14	Screw M5x12	12			
15	Washer 6	5			
16	Hexagon Screw M6x20	4			
17	Piston	1			
18	Piston Pin	1			
19	O-Circle	2			
20	Soft Cover of Assist Handle	1			
21	Handle	1			
22	Positioning Sleeve	6			
23	Flexible Cylindrical Pin 4x35	6			
24	Damping Spring	4			
25	Guide Sleeve	2			
26	Combination Switch	1			
27	Support Plate	1			
28	Cabinet Seals	1			
29	Hammer Case	1			
30	Washer 8	10			
31	Hexagon Screw M8x30	10			
32	Grip	1			
33	Grip Soft Case	1			
34	Impact Crank	1			
35	Needle Roller Bearing HK152316	1			
36	Shock Linkage	1			
37	Collar	1			
38	Hexagon Screw M6×16	1			
39	Left Gasket	1			
40	Left Steel Cover	1			



### XIII Part list and Exploded View of Gasoline Engine

Parts No.	Description	Q'ty		Parts No.	Description	Q'ty
1-1	Screw M5×20	13		1-41	Air Filter Cover	1
1-2	Starter	1		1-42	Air Filter Press Plate	1
1-3	Starter Alu.Gasket	1		1-43	Air Filter	1
1-4	Nut M8×1.25	1		1-44	Air Filter Base Com.	1
1-5	Start Reel	1		1-45	Carburetor	1
1-6	Nut M8×1.25	1		1-46	Carburetor Gasket	1
1-7	Oil Seal	2		1-47	Air Inlet	1
1-8	Right Crankshaft Box	1		1-48	Air Inlet Tube	1
1-9	Deep Groove Ball Bearing6201	2		1-49	Cylinder	1
1-10	Oil Tank Assem.	1		1-50	Cylinder Gasket	1
1-11	Oil Tank Washer	2		1-51	Ignitor Plug	2
1-12	Screw M5×16	2		1-52	Ignitor	1
1-13	Press Plate Jacket	1		1-53	Crankshaft Connectine Rod Com.	1
1-14	Oil Tank Press Plate	1		1-54	Needle Bearing	1
1-15	Woodruff Key	1		1-55	Ignitor Pin	1
1-16	Crank Case Gasket	1		1-56	Ring	2
1-17	Pin 4×10	2				
1-18	Left Crankshaft Case	1				
1-19	Screw M5×30	4				
1-20	Ignition Coil	1				
1-21	Magneto Rotor Comp	1				
1-22	Nut M8×1.25	1				
1-23	Steel Washer	2				
1-24	Expander Com.	1				
1-25	Gasket	2				
1-26	Clutch Bolt M8×10	2				
1-27	Air Deflector	1				
1-28	Pin 5×10	2				
1-29	Fan Cover	1				
1-30	Screw M5×12	3				
1-31	Muffler Cover	1				
1-32	Bolt M5×55	2				
1-33	Muffler	1				
1-34	Muffler Gasket	1				
1-35	Cylinder Top Cover	1				
1-36	Cylinder Cover	1				
1-37	Screw M5×20	4				
1-38	Spark Plug	1				
1-39	Screw M5×22	2				
1-40	Screw M5×9	1				

