

JH95GPD

Gasoline Post Driver



Operation Manual

User Manual

Welcome to buy products of our company. The manual targets at JH95GPD pile driver produced by our company and offers instructions. The pile driver produced by our company stresses is easy to operate and maintain and boasts long service life. Therefore, customers give priority to it.

For your safety, please read the manual carefully before using the machine, otherwise physical injury or mechanical damage may be caused.

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1 Name of Main Parts

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

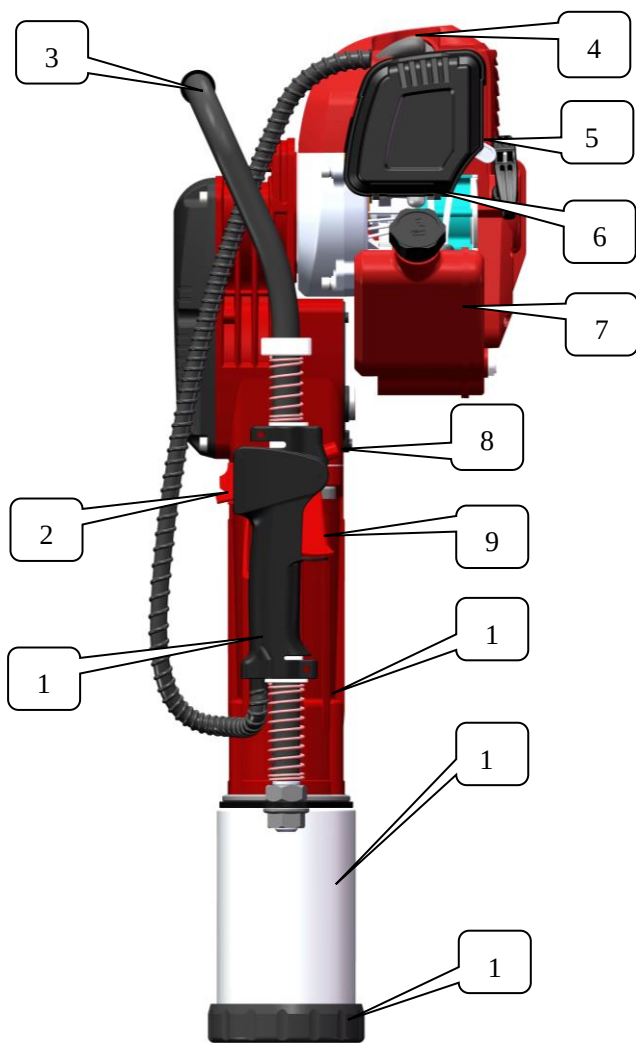


Fig. 1

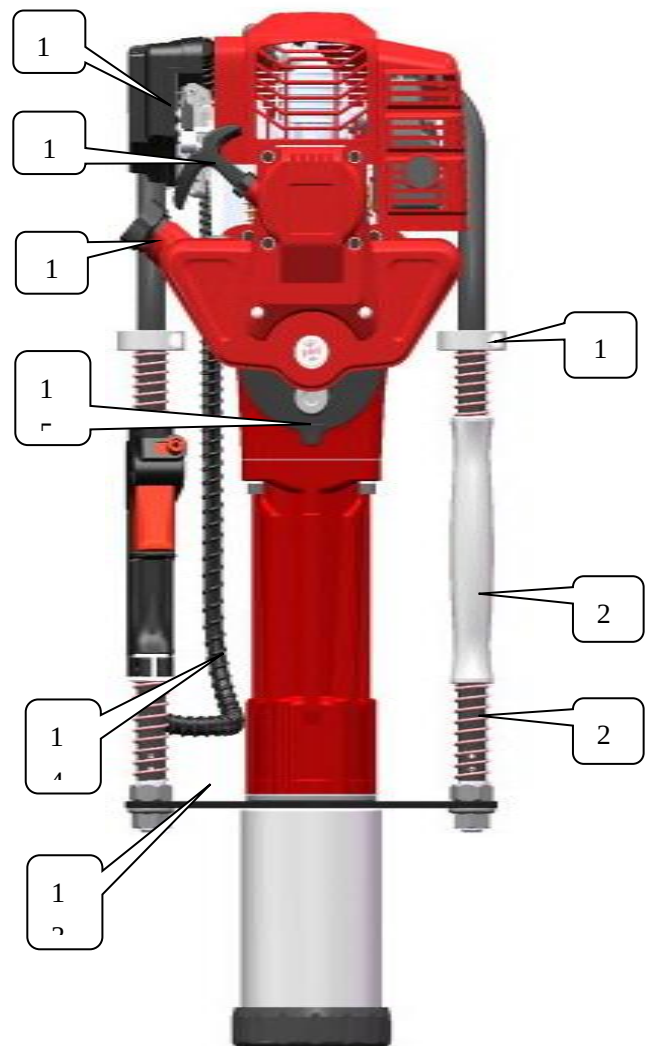


Fig.2

2 Description of Safe Operation

1. The operator must wear slip-resistant safety shoes and suitable clothing. For long-time operation, he or she must wear goggles, the helmet and earplugs.
2. While operating the machine, please keep balance of body; the user shall stand in front of Air Filter and operate the machine. While operating the machine, do not smoke, eat or chat.
3. After starting the machine, do not carry out one-handed operation.

4. While lifting the machine, do not pull Throttle Switch, and carry out idle-speed operation of the machine.
5. Non-staff shall stay away from operating area to avoid injury.
6. Select the medium speed to operate pile driver.
7. Keep the handle dry and clean without greasy oil or fuel mixture.
8. If operation is stopped midway; be sure to turn off the engine.
9. Every time, be sure to check whether fastening screws of the connector is tightened before use. If it's loose, it's necessary to tighten the screws before use.
10. Pure gasoline (without two-stroke engine oil) is forbidden. Compound it according to the recommended ration of fuel in Chapter 4.2 for use.
11. Gasoline is highly flammable. Therefore, replenish fuel in a well-ventilated environment. During fuel filling, gasoline engine must be turned off.
12. Do not add too much oil. The oil shall not exceed the neck of oil filer of Fuel Tank. If fuel spills, wait until the fuel volatilizes completely and then start the machine.
13. After refueling, tighten the oil lid. During work, check whether Fuel tank is damaged and spills frequently. If damage is found, close down the machine immediately for replacement.
14. Reserve oil in storage areas. Remove hidden troubles of fire or open flame.
15. While pile driver is used in closed areas such as tunnels, trenches and deep groove, it's necessary to guarantee normal air circulation to avoid waste gas poisoning and suffocation.
16. Forbid quick acceleration or braking so as not to damage the machine.
17. Before transport, empty fuel inside Fuel tank to avoid leakage.
18. Non-professional maintenance staff are prohibited from dismounting pile driver to avoid structural damage of parts, shortened service life of pile driver or accidents.

3 Main Purpose and Function

3.1 Purpose: It can be used for outside piling operation in farms, orchard fences or barriers.

3.2 Function

3.2.1 It is a handheld gasoline pile driver which boasts light weight and low discharge capacity.

3.2.2 The product conforms to design of man-machine engineering, reduces working strength of the operator to the greatest extent, and boasts simple and comfortable operation. The operator can achieve 360° all-around operation.

3.2.3 It can regulate impact energy and impact frequency and be applied to a variety of piles less than 99mm in diameter.

3.2.4 Advantage: Save the trouble of using heavy machines such as generator, air compressor, and trucking-lorry.

3.2.5 The operating handle of the machine is rubber and plastic sponge handle which can greatly reduce the recoil force of the machine. It's installed with two-way Damping Spring which makes the user more comfortable.

4 Preparation before Use

4.1 Piling Socket

4.1.1 Install Piling Socket Retainer of specifications of 20~49、50~69、70~99mm which are suitable for the pile size. See Fig.3 for the knob.

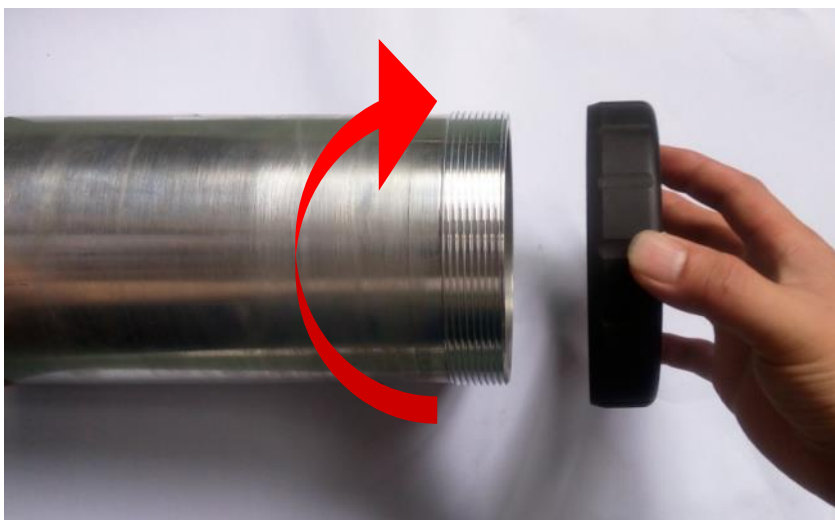


Fig. 3

4.2 Fuel

Use qualified gasoline above 90# and two-stroke special engine oil

Recommended mixing ratio

Condition	Gasoline :engine oil
Operation within 20 hours	20:1
Operation of over 20 hours	25:1

4.2.1 Pure gasoline (without two-stroke engine oil) is forbidden.

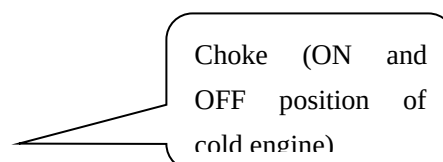
4.2.2 Add fuel in a well-ventilated place.

4.2.3 Do not add too much oil. The oil shall not exceed the neck of Fuel Tank Filling Port. If fuel spills, wait until the fuel is removed or volatilizes completely and then restart the machine.

4.2.4 After refueling, tighten the lid of Fuel tank.

5 Starting

5.1. Before starting the new machine, press the transparent and semi-circle fuel bubble repeatedly (Fig.4) until carburetor is filled with fuel. (If the engine is cool, close the air door. Open air door after starting.)



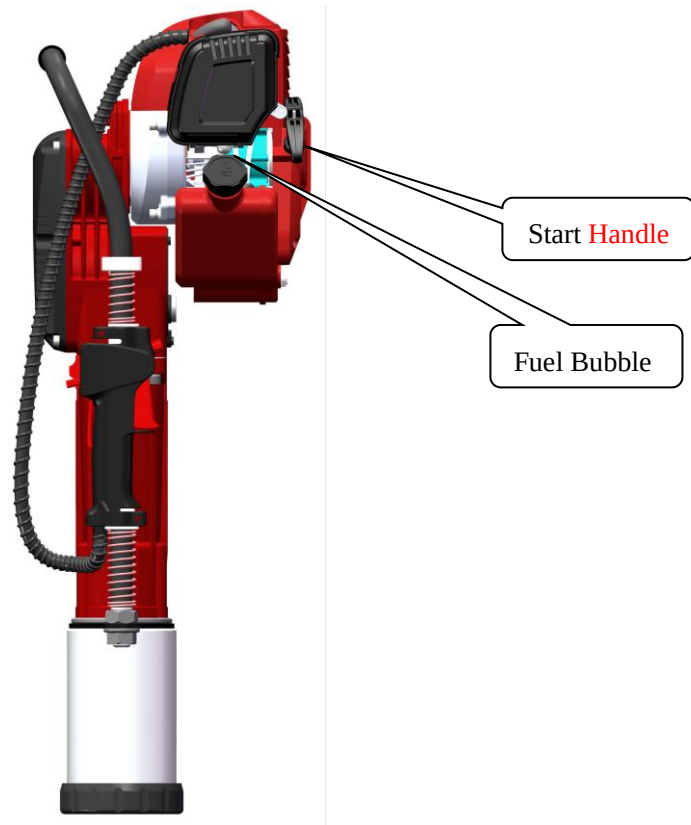


Fig. 4

5.2. Set the machine upright according to Fig.4. Hold the upper part of handle tightly with one hand while the other pulls the pulling handle of starter for over 50cm quickly. Do not let the pulling handle go back freely in repeated pulling but hold it tightly to avoid injury resulting from quick resilience.

5.3. Start the gasoline engine and then open air door completely. After idle operation of 5 minutes, start normal work.

6 Operation

6.1 After the gasoline engine is started, first carry out idle operation of 5 minutes to warm up the machine.

6.2 When the gasoline engine is warmed up, press throttle handle to the appropriate regulatory position according to the required impact energy.

Note: The new gasoline pile driver use shall mainly boast low or medium-speed for work in the first 20 hours of operation and the maximum throttle shall not be used in order to extend the service life.

6.3. Operating speed of gasoline engine shall be at medium speed.

6.4. High-speed operation of pile driver during non-piling is prohibited.

7 Turning off the Machine

7.1 Release throttle handle and carry out idle running of the machine for 3-5 minutes.

7.2 Pull Stop Switch to the position of flameout. See the position of Stop Switch in Fig.5.



Fig. 5

8 Technical Maintenance

8.1 Air Filter

Check air filter regularly. Soot deposit blocking filter element of air filter will reduce power of gasoline engine and service life. If the filter has too much soot deposit, clean it with warm water and detergent, and then wipe dry it with dry cloth, and then install the air filter. Filter should be replaced if damaged. Particularly if it's in the environment of much dust, maintenance cycle shall be shortened properly.

8.2 Fuel filter

If the fuel filter is blocked, pile driver will have reduced speed and weaker impact energy. Method: ① Open the tank lid. Get out the fuel filter from Fuel tank with metal hook and clean it. ② When cleaning the fuel filter, clean the fuel tank at same time as it's shown in Fig.6, 7 and 8.



Fig. 6



Fig. 7



Fig. 8

8.3 Carburetor

Fuel tank and carburetor generally have residual oil. After some time, the residual oil will become greasy oil which block up the oil line, causing that the engine can't be started. Therefore, when the machine is not used for more than one week, be sure to completely take the fuel out. Method: Pull out the oil inlet pipe, press rubber bubble of Fuel Bubble of Carburetor repeatedly for oil discharge, and press the oil inlet pipe back to its position when fuel in Fuel Bubble and oil return pipe is emptied.

8.4 Spark Plug

To ensure normal operation of the engine, spark plug gap must be proper. Remove sediment with a wire brush. Proper gap of Spark Plug is 0.5-0.7 mm. See Fig.9.

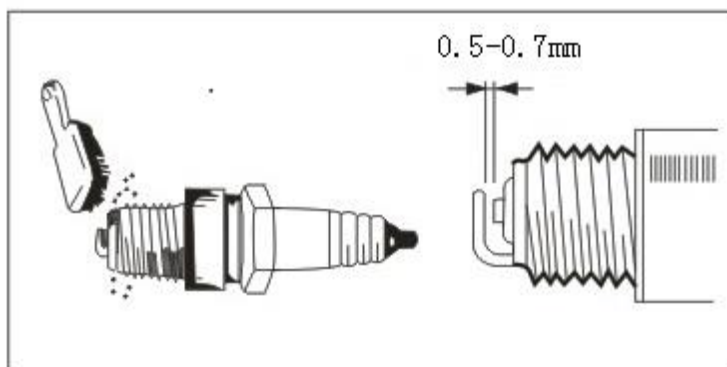


Fig.9

8.5 Muffler

Regularly remove dirt on inlet and outlet of muffler, or clean dirt in it with detergent.

8.6 Gearbox lubrication

Open the cover of the gear boxes, and lubricate the driving gear regularly with lubricating oil to guarantee full lubrication of the gear.

8.7 The cylinder heat sink

Regularly remove dust to ensure the cylinder cooling. The gasoline pile driver is air-cooling type. If dust accumulates on the cylinder heat sink, the cooling effect will be influenced directly, which will lead to failure of the cylinder.

8.8 Filling of impact cylinder lubrication

After working for an accumulated 50 hours, fill special lubrication of 50g for the impact cylinder. See Fig. 10,11,12 and 13.



Fig. 10



Fig. 11



Fig. 12

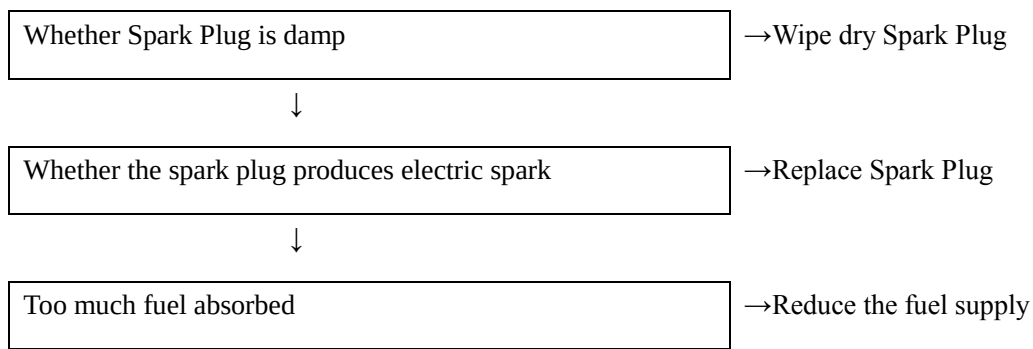


Fig. 13

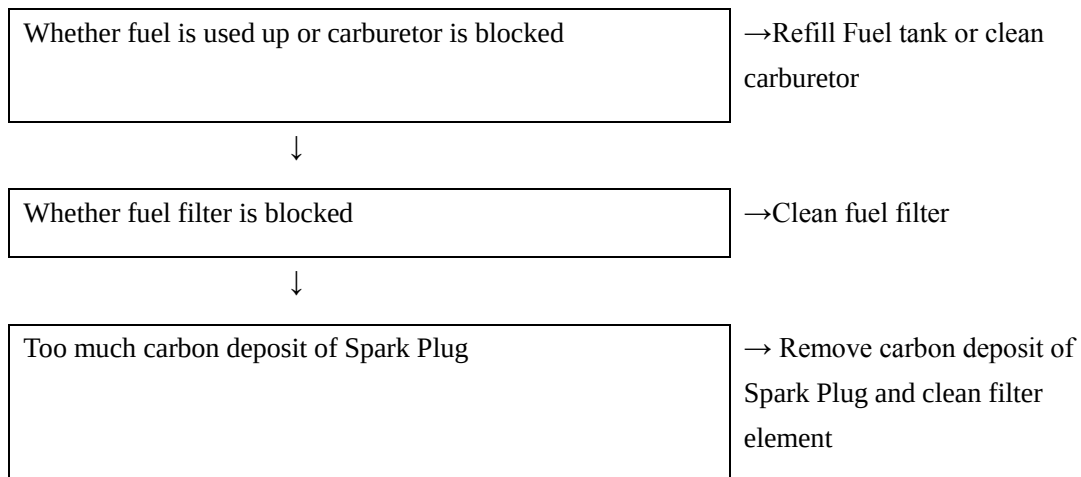
9 Failure Analysis and Troubleshooting

Problem analysis and solving

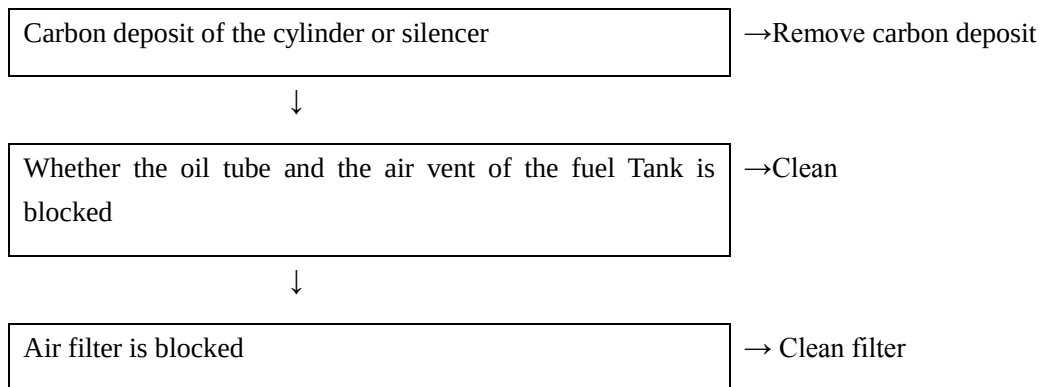
Example 1: Difficulties in starting engine in cooling state.



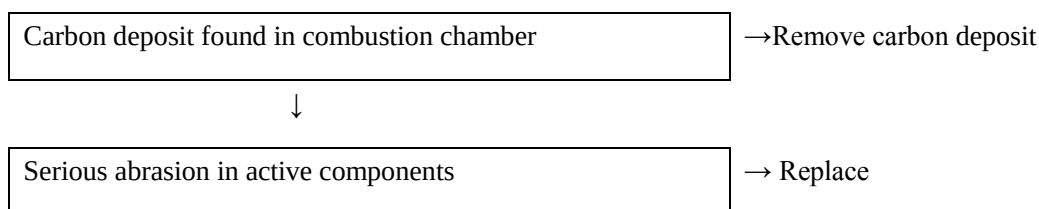
Example 2: Difficulties in restarting after a sudden stop



Example 3: Slow speed and weak power



Example 4: Abnormal sound



Example 5: The machine is working normally but the work efficiency is very low

Rubber ring of impact piston is aged and worn

→Replace or renew

Please contact with local Sales Agent or contractual maintenance site for maintenance.

10 Key Data of Product

Engineer type	Single cylinder, air cooling, 2 stroke, cylinder diameter × stroke: 44X34mm
Model	JH95GPD
L×W×H(mm)	805×305×270
Fuel	Mixed oil (Gasoline: two-stroke engine oil=25:1)
Fuel tank capacity	1.3L
Weight	20.2Kg
Displacement	52CC
Max power and speed	1700W/9000r/min
Max torque and speed	2.5N.m/5000r/min
Fuel consumption rate	≤0.60L/h
Impact frequency	700~1350 RPM
Impact energy	20~55J
Carburetor type	H119-6A-00-210
Spark plug type	BM6A
Starter system	Hand pull start

11 Maintenance Cycle

The following Data are common data of the product. Under worse working conditions such as thick dust or long work hours of pile driver, the maintenance cycle should be shortened correspondingly.		Before work	After work or every day	After Filling oil	Every Week	Every Month	Temporary Failure	If necessary
The whole machine	Outlook check (state, tightness of screws)	√		√				
	Clean		√					
Control handle/stop button	Function check	√		√				
Air Filter	Clean				√			√
	Replace						√	
Fuel Filter	Check					√		
	Replace						√	
Petrol Tank/Petrol Tank cover	Clean		√	√				
	Check	√		√				
	Tighten							√
Gear Box/Cylinder	Clean					√		
	Add oil							√
Silencer	Check					√		
	Remove carbon deposit							√
Cylinder Cooling Fin	Check					√		
	Clean							√
Spark Plug	Check/Adjust the distance between electrodes					√		
	Replace							√

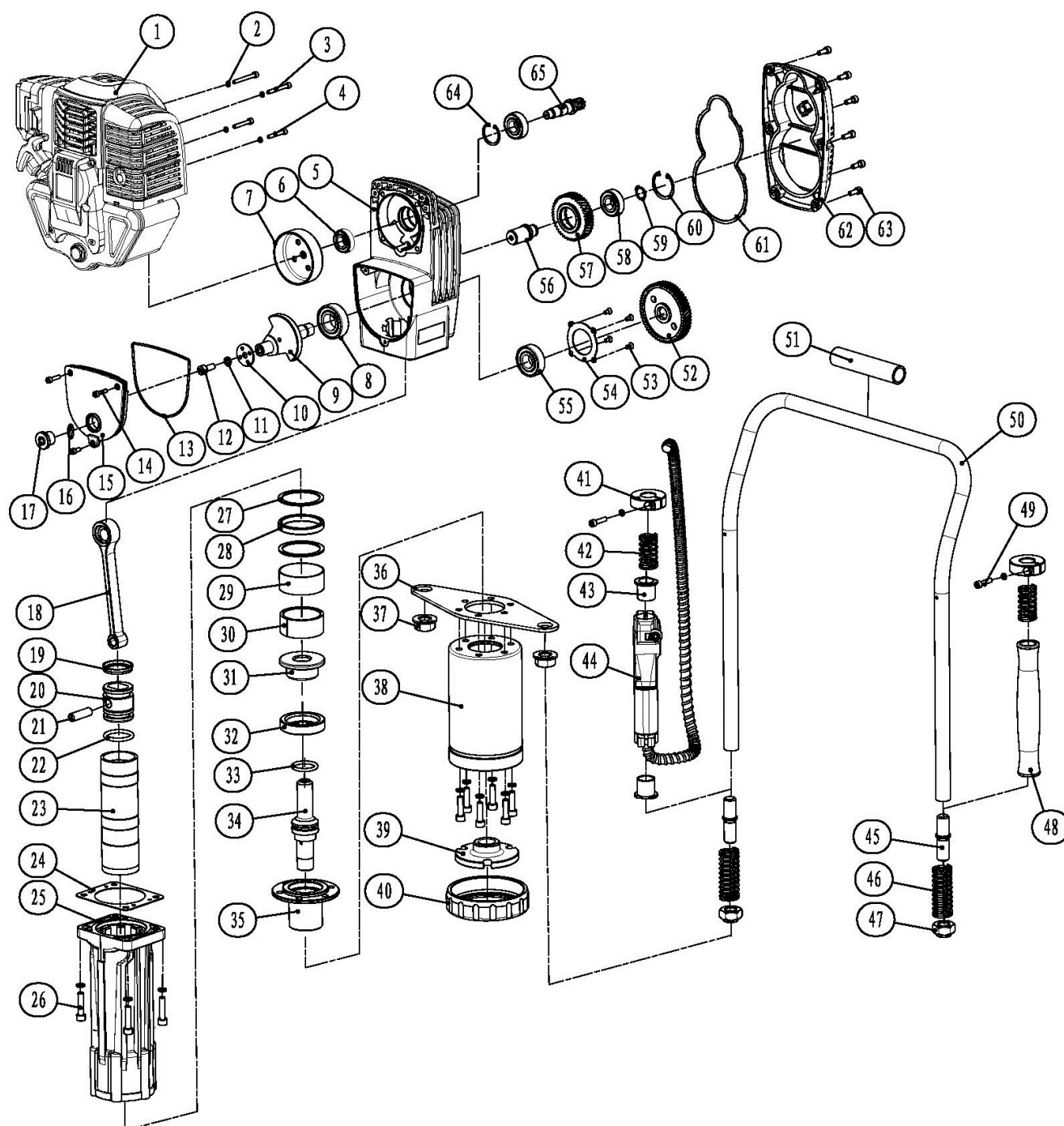
Screw and Nut	Check	√		√				
	Tighten							√

12 Parts List and Exploded View of JH95GPD Pile Driver

Parts No.	Name	Qty		Parts No.	Name	Qty
1	95A Gasoline Engine	1		41	Positioning Sleeve	2
2	Elastic Washer 6×1.6	5		42	Compression Spring Φ22.5×Φ27.5×60	2
3	Inner Hexagon Cheese-head Screw M6×25	3		43	Switch Handle Guide Sleeve	2
4	Inner Hexagon Cheese-head Screw M6×20	2		44	Combination Switch	1
5	Gearbox	1		45	Connecting Thread Head	2
6	Deep Groove Ball Bearings 6202-2RZ	1		46	Compression Spring Φ22.5×Φ27.5×123	2
7	Driven Disk	1		47	Step Nut	2
8	Deep Groove Ball Bearings 6205-2RZ	1		48	Handle Sleeve	1
9	Impact Crankshaft	1		49	Inner Hexagon Cheese-head Screw M6×40	2
10	Crankshaft Retainer	1		50	Steel tube handle	1
11	Elastic Washer 8×2.1	11		51	Handle hose	1
12	Inner Hexagon Cheese-head Screw M8×20	1		52	Big Gear	1
13	Oil Storage Box Seal	1		53	Cross Recessed Countersunk Head Screw M5×10	4
14	Inner Hexagon Cheese-head Screw M5×16	3		54	Bearing Holder	1
15	Oil Storage Box Lid	1		55	Deep Groove Ball Bearings 6204-2RZ	1
16	O-ring Φ18×2.65	1		56	Gear Shaft	1
17	Oil Plug M20×1.5	1		57	Middle Gear	1
18	Impact Connecting Rod	1		58	Deep Groove Ball Bearings	2

					6203-2RZ	
19	Lip-shaped Ring Φ35.5×Φ45.5×6	1		59	Shaft Retainer 17	1
20	Impact Piston	1		60	Hole Retainer 40	1
21	Impact Piston Pin	1		61	Gearbox Cover Seal	1
22	O-ring Φ35.5×5	1		62	Gearbox Cover	1
23	Impact Cylinder	1		63	Inner Hexagon Cheese-head Screw M6×16	6
24	Rear Paper Pad	1		64	Hole Retainer 35	1
25	Alluminum Hammer Case	1		65	Small Gear	1
26	Inner Hexagon Cheese-head Screw M8×35	10				
27	Iron Ring	2				
28	Small Vibration Absorption Ring	1				
29	Opening Ring Rubber Circle	1				
30	Opening Ring	1				
31	Iron Handle Sleeve	1				
32	Big Vibration Absorption Ring	1				
33	O-ring Φ31.5×4.5	1				
34	Shock	1				
35	Shock Guide Sleeve	1				
36	Support Plate	1				
37	Hexagon Flange Nut M18×1.5	2				
38	Piling Socket	1				
39	Inner Pile Head	1				
40	Piling Socket Retainer	1				

Exploded View of JH95GPD Pile Driver

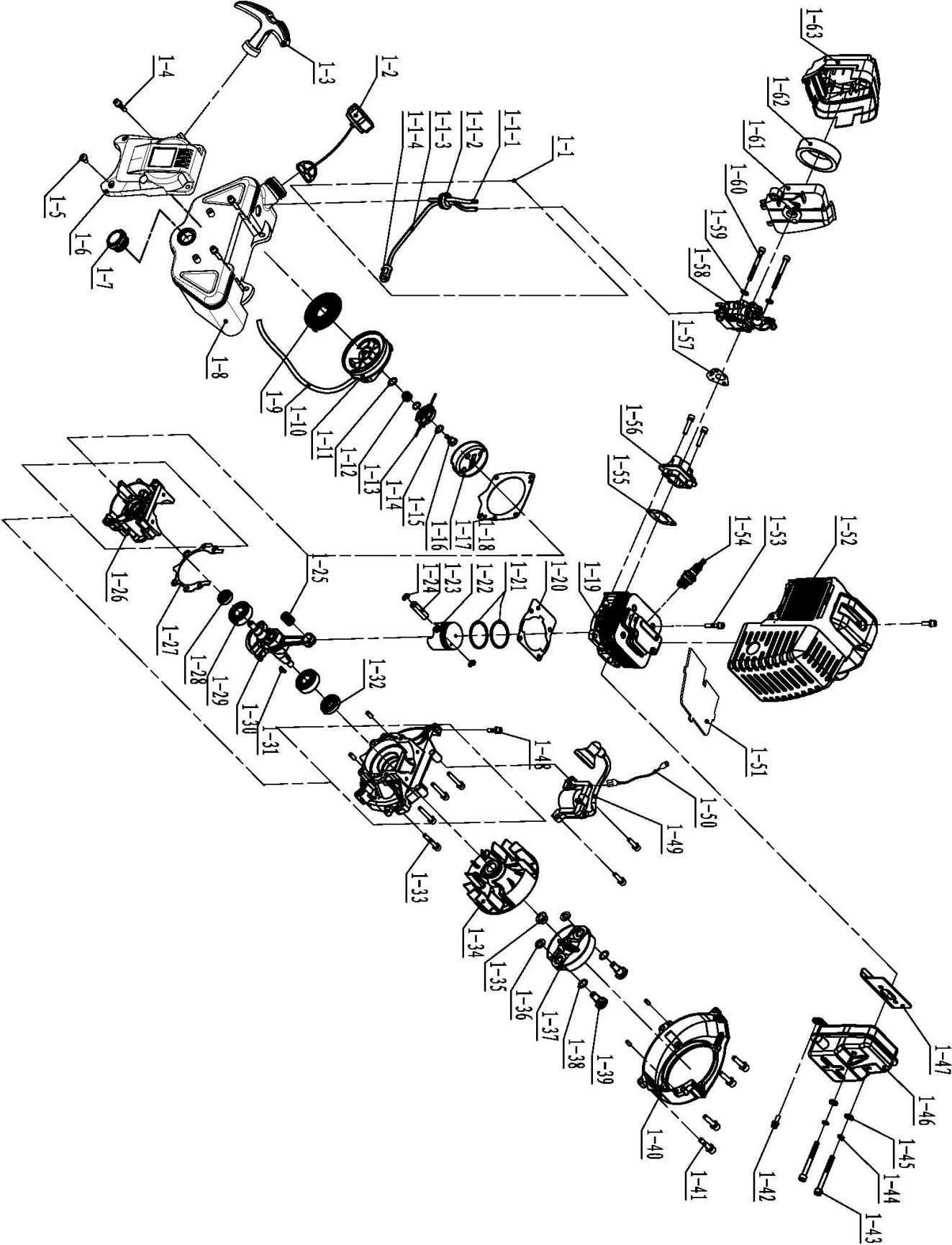


13 Parts List and Exploded View of JH95GPD Gasoline Pile Driver

Parts No.	Name	Qty		Parts No.	Name	Qty
1-1	Oiler rubber assembly	1		1-35	Hexagon flange nuts	1
1-2	Fuel Tank Lid Assembly Screw M5x20	1		1-36	Small washerΦ8.5XΦ15X1.6	2
1-3	Start Handle	1		1-37	Shoe Spring	1
1-4	Inner six angle cylinder head combined screwM5X20	4		1-38	wave washerΦ10.5XΦ15X0.5	2
1-5	Cross recessed countersunk head tapping screws-ST4.8X13	2		1-39	Shaft ScrewM8XΦ10	2
1-6	starter	1		1-40	Wind Scooper	1
1-7	Oil Mirror	1		1-41	Inner six angle cylinder head combined screwM6X25	4
1-8	Fuel Tank	1		1-42	Inner six angle cylinder head combined screwM5X14	1
1-9	Start Disc Spring	1		1-43		2
1-10	Rope	1		1-44	Elastic washer6X1.6	2
1-11	Start Rope Wheel	1		1-45	Plain washer C level 6X1.6	2
1-12	WasherΦ10XΦ14X0.5	1		1-46	Silencer	1
1-13	Start Spring	1		1-47	Silencer Paper Pad	1
1-14	Start Paw Assembly	1		1-48	Inner six angle cylinder head combined screwM5X16	2
1-15	WasherΦ9.5XΦ12.5X0.8	2		1-49	Igniter Assembly	1
1-16	Start jaw screw	1		1-50	Stop Wire	1
1-17	Start Dial Disc	1		1-51	Cover Plate	1
1-18	Starter Gasket	1		1-52	Cover	1
1-19	Cylinder	1		1-53	Inner six angle cylinder head combined screwM5X25	10

1-20	Cylinder Gasket	1		1-54	Spark Plug	1
1-21	Piston Ring	2		1-55	Inlet Pipe Gasket	1
1-22	Piston	1		1-56	Inlet Pipe	1
1-23	Piston Pin	1		1-57	Carbureter Gasket	1
1-24	Clamp Spring	2		1-58	Carbureter	
1-25	Needle Roller Bearing HK101316	1		1-59	Plain washer C level 5X12X1	2
1-26	Left and right crankcase	1		1-60	Internal six angle cylinder head screwsM5X50	2
1-27	Case Sealing Paper Pad	1		1-61	Air Filter Seat	1
1-28	Oil Seal 12x22x7	1		1-62	Filter Screen	1
1-29	Bearing 6202	2		1-63	Air Filter Cover	1
1-30	Crankshaft Assembly	1				
1-31	Woodruff Key 3x5x13	1				
1-32	Oil Seal 15x30x7	1				
1-33	Inner six angle cylinder head combined screwM5X35	4				
1-34	Magnetic Flywheels	1				

Exploded View of JH95GPD Gasoline Pile Driver



14 Packing List of JH95GPD Gasoline Pile Driver

1. Pile driver.....	1
2. Piling Socket Retainer 20~49mm.....	1
3. Piling Socket Retainer 50~69mm.....	1
4. Piling Socket Retainer 70~100mm.....	1
5. Oil pot of ration.....	1
6. Special oil for cylinder (60g)	1
7. Instructions.....	1
8. The tool package (Including 1 piece of Spark Plug, 1 piece of Spark Plug handle,	

1 piece of 4mm Inner Hexagon Spanner, 1 piece of 5mm Inner Hexagon Spanner within, 1 piece of Inner Hexagon Spanner 6mm, 1 piece of T-shaped Inner Hexagon Spanner, 1 straight screw-driver, and 1 piece of 8-10mm open spanner).

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