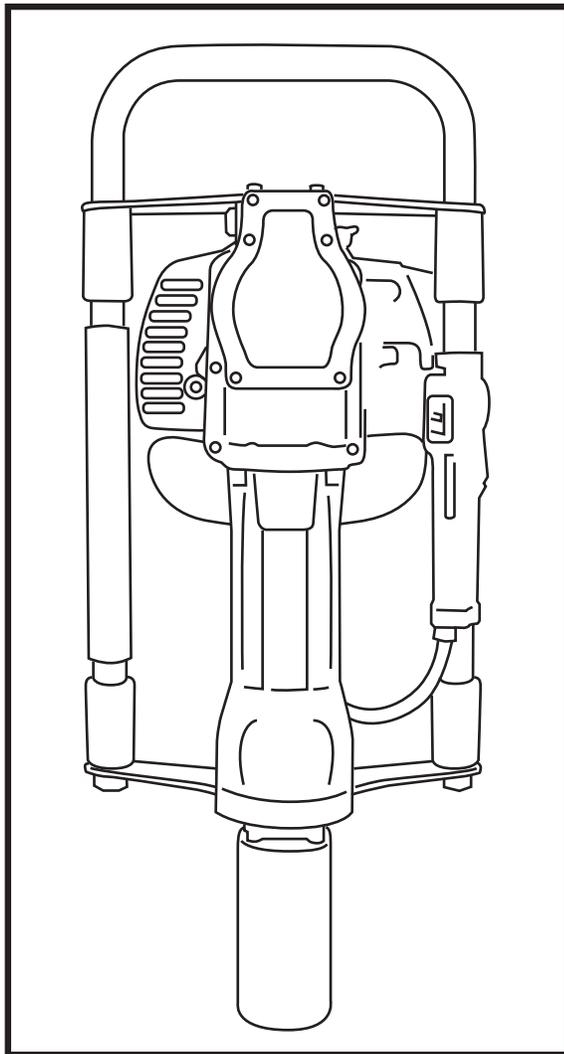




THOR – Post Driver Instructions



THOR STAKE/POST DRIVERS

MS-PD1002

MS-PD1004

MS-PDFP3

MS-PDFP5

Distributed by: TENTANDTABLE.COM

Made in China

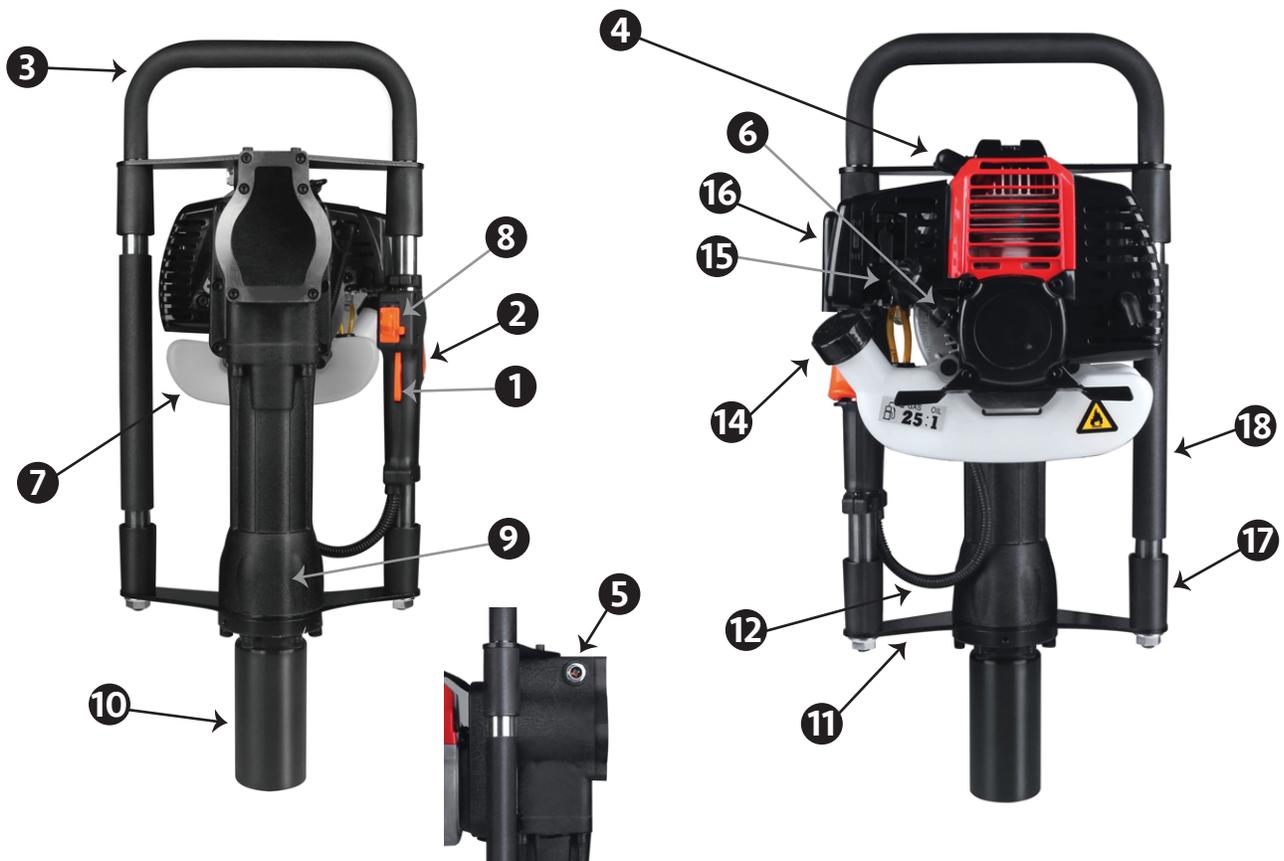
THOR-POST DRIVERS OVERVIEW

THOR post drivers are light weight, hand-held gasoline pile drivers—that reduces working strength of the operator and produces simple and comfortable operation. Post drivers can easily be one of the most efficient tools you may ever use—to get large or small jobs completed quicker and with much less effort. The design of these gas-powered post drivers have made them very portable. THOR post drivers work with a variety of fence posts, including steel posts, t-posts, sign posts, u-channel posts, guide posts, and grounding rods. Many of our customers employ these drivers to make quick work out of securing tent stakes, for party tent projects.

Advantage notes: Reduces the effort of using heavy machines such as generators and air compressors. The operating handle is rubber/plastic sponge handle which can greatly reduce the recoil force of the driver— also installed, a two-way damping spring which adds to use comfortable.

BASIC PARTS:

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



OPERATION DESCRIPTION:

- The operator must wear slip-resistant safety shoes and protective clothing—including goggles and helmet. For long-time operation, operator must wear earplugs.
- While operating the post driver, maintain balance of body—the user should stand in front of *air filter* to operate the machine.
- After starting the machine, do not carry out one-handed operation.
- While lifting the machine, be careful not pull *throttle switch*— carry, only, in idle-speed.
- Keep non-staff away from operating area to avoid injury.
- Select the medium speed to operate pile driver.
- Keep the handle dry and clean free from greasy oil or fuel mixture.
- If operation is stopped midway, for any reason, be sure to turn off the engine.
- Before use, be sure to check fastening screws of the connector are properly tightened. (If it's loose, it's necessary to tighten the screws before use).
- Pure gasoline (without two-stroke engine oil) is prohibited. Compound it according to the recommended ration of fuel on **(page 3)**, for use.
- Gasoline is highly flammable—important, replenish fuel in a well-ventilated environment. During fuel filling, gasoline engine **MUST** be turned off.
- Do not add too much oil—the oil should not exceed the neck of oil filer of *fuel tank*. If fuel spills over, wait until the fuel volatilizes completely and then start the machine.
- During work, check whether *fuel tank* is damaged and frequently leaking—and check the oil lid, tighten properly. (If damage is found, close down the operation immediately for replacement).
- Remove hazardous materials such as, oil containers, gas cans or open flame from work area.
- While post driver is used in closed areas such as tunnels, trenches and deep groove, take precaution to ensure air circulation is adequate, to avoid gas fume poisoning.
- Avoid quick acceleration or braking, so as not to damage the machine.
- Before transport, empty *fuel tank* to avoid leakage and accidental fires.
- Non-professional maintenance is prohibited— avoid disassembling post driver to avoid structural damage of parts, shortened service life of post driver.

PREPARATION FOR USE:

Fuel:

- Use qualified 86 Octane – unleaded gasoline or higher gasoline
(For model MS-PD1002, use a 25 to 1 Fuel Mixture)
- Add fuel in a well-ventilated place.
- Do not add too much oil. The oil should 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.
- After refueling, tighten the lid of *fuel tank*.

Lubricant Note:

- Use SAE-90 in the gearbox / 30 Weight in the engine crankcase.

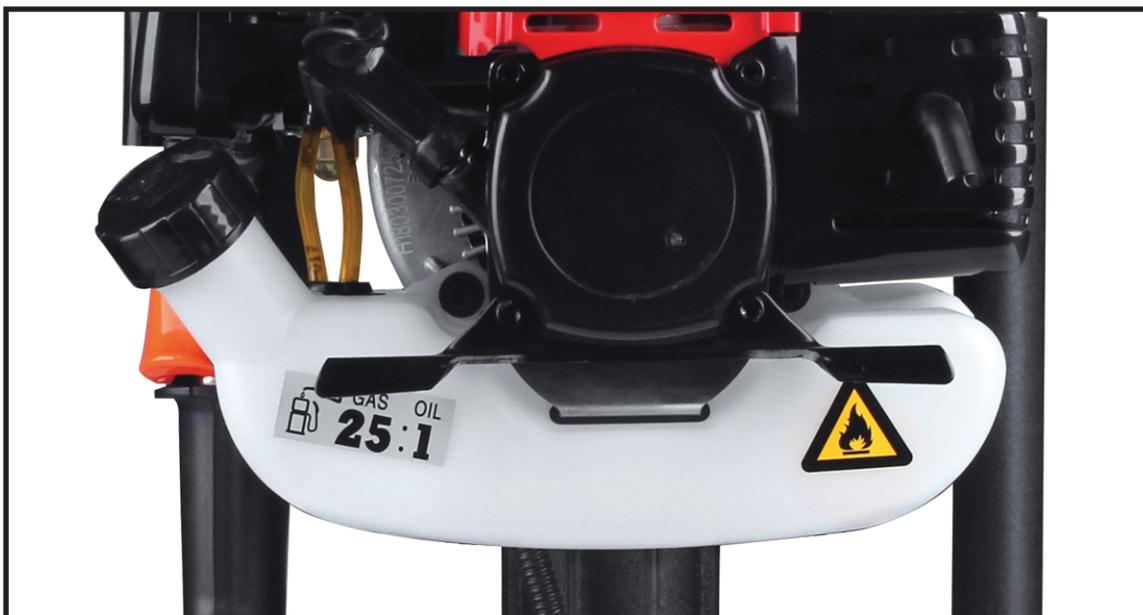


Figure 1.

STARTING:

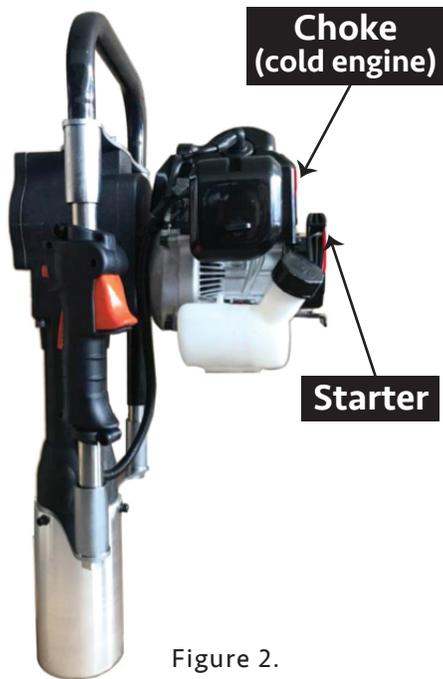


Figure 2.

- Before starting the new post driver, press the transparent and semi-circle fuel bubble repeatedly until carburetor is filled with fuel see (**figure 2**).
(If the engine is cool, close the air door – open air door after starting)

- Set the machine upright according to (**figure 3**). Hold the upper part of the handle tightly with one hand, while the other pulls the starter grip quickly (remember to extend cord sufficiently). Do not let the starter grip go back freely in repeated pulling— but hold it tightly to avoid injury.
- Start the gasoline engine and then open-air door completely. After idle operation of 5 minutes, start normal work operations.

OPERATION:

- After the gasoline engine is started, idle engine for 5 minutes to warm up the driver.
- After warmed up, press throttle handle to the appropriate regulatory position, according to the required impact energy.

(Note: The new gasoline post driver use should mainly be set to low or medium-speed for the first 20 hours of operation— refrain from using maximum throttle— this will extend the service life).

- Operating speed of gasoline engine is best at medium speed.
- High-speed operation of post driver during non-piling is prohibited.

TURNING OFF POST DRIVER:

- Release throttle handle and maintain idle running of the engine for 3-5 minutes.
- Pull *stop switch* to the position of off/ flame-out. See the position of *stop switch* in (figure 3).

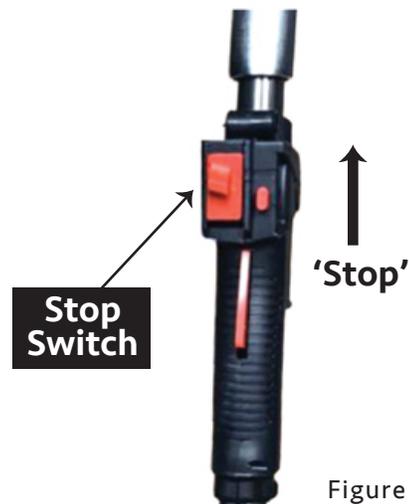


Figure 3.

TECHNICAL MAINTENANCE:

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. In dirty environs, maintenance cycle should be shortened.

Fuel filter

- If the fuel filter is blocked, pile driver will have reduced speed and weaker impact energy. Cleaning: Open the tank lid—remove the *fuel filter* from *fuel tank* with metal hook and clean it. When cleaning the *fuel filter*, clean the *fuel tank* at same time— (see figure 4, 5 and 6).



Figure 4.



Figure 5.



Figure 6.

TECHNICAL MAINTENANCE:

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, preventing the engine from starting. Therefore, when the post driver is not used for more than one week— 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.

Spark Plug

To ensure normal operation of the engine, spark plug gap must be proper. Remove sediment with a wire brush.

See (figure 7).

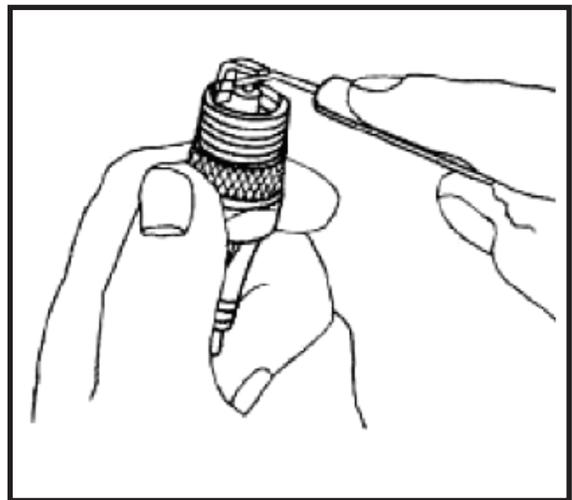


Figure 7.

Muffler

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

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.

TECHNICAL MAINTENANCE:

The Cylinder Heat Sink

- Regularly remove dust to ensure the cylinder cooling. The gasoline post 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.

Filling of Impact Cylinder Lubrication

- After working for an accumulated 50 hours, fill special lubrication (50g) for the impact cylinder. See (figure 8, 9, and 10).



Figure 8.



Figure 9.

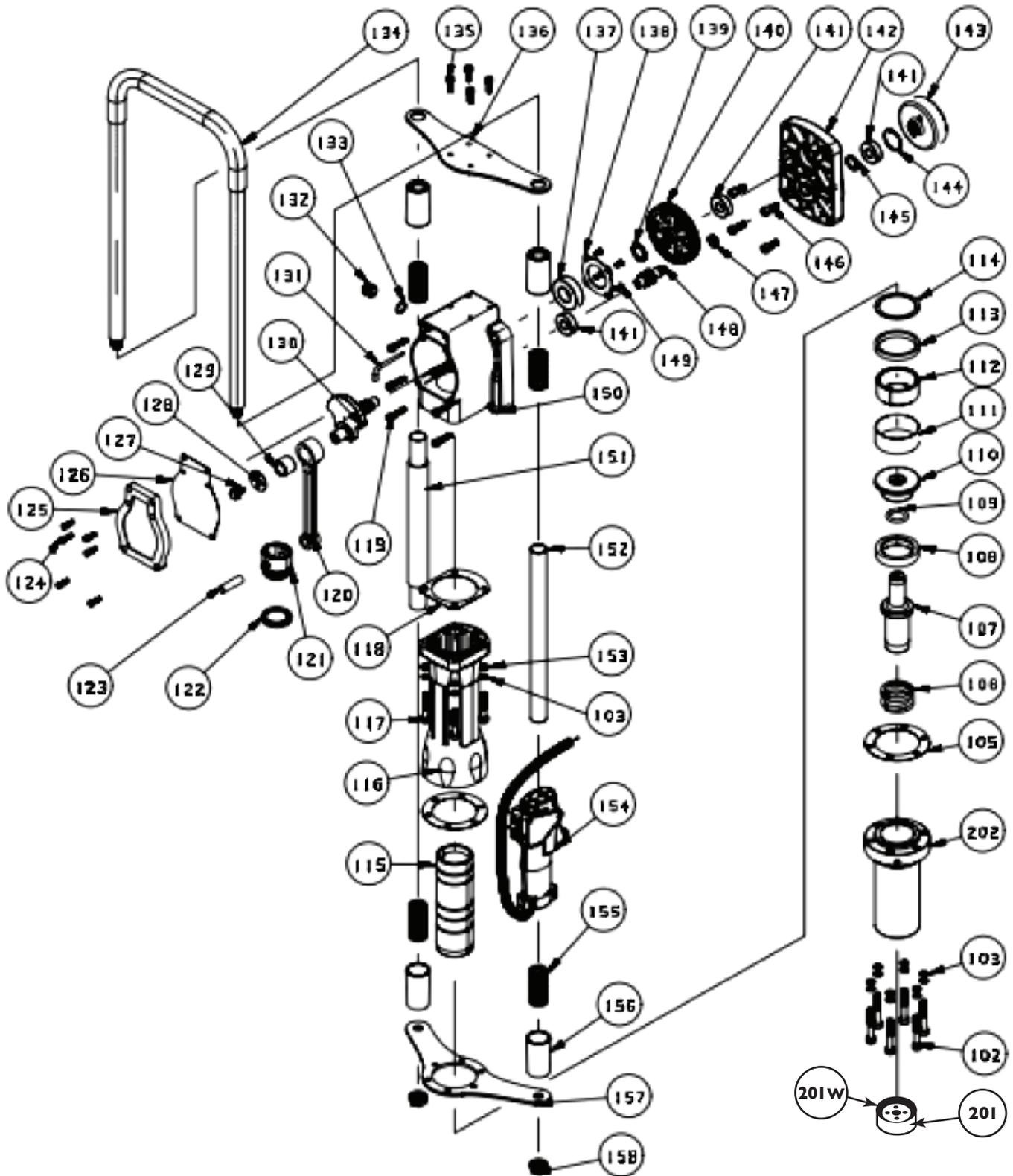


Figure 10.

TROUBLESHOOTING:		
Problem	Analysis	Action
Difficulties in starting engine in cooling state.	Whether Spark Plug is damp ↓ Whether the spark plug produces electric spark ↓ Too much fuel absorbed	<ul style="list-style-type: none"> • Wipe dry Spark Plug • Replace Spark Plug • Reduce the fuel supply
Difficulties in restarting after a sudden stop	Whether fuel is used up or carburetor is blocked ↓ Whether fuel filter is blocked ↓ Too much carbon deposit of Spark Plug	<ul style="list-style-type: none"> • Refill Fuel tank or clean carburetor • Clean fuel filter • Remove carbon deposit of Spark Plug and clean filter element
Slow speed and weak power	Carbon deposit of the cylinder or silencer ↓ Either the oil tube and the air vent of the fuel Tank is blocked ↓ Air filter is blocked	<ul style="list-style-type: none"> • Remove carbon deposit • Clean • Clean filter
Abnormal sound	Carbon deposit found in combustion chamber ↓ Serious abrasion in active components	<ul style="list-style-type: none"> • Remove carbon deposit • Replace
The machine is working normally but the work efficiency is very low	Rubber ring of impact piston is aged and worn	<ul style="list-style-type: none"> • Replace or renew

MAINTENANCE SCHEDULE:								
The following data are general data for the product. Under the worse working conditions such as thick dust or long work hours of the post driver, the maintenance cycle should be shortened accordingly.		Before Work	After Work (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							
GasTank/Gas 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							✓

STAKE DRIVER- EXPLODED VIEW / PARTS LIST (MS-PD1002/PD1004):



Distributed by: **TENTANDTABLE.COM**

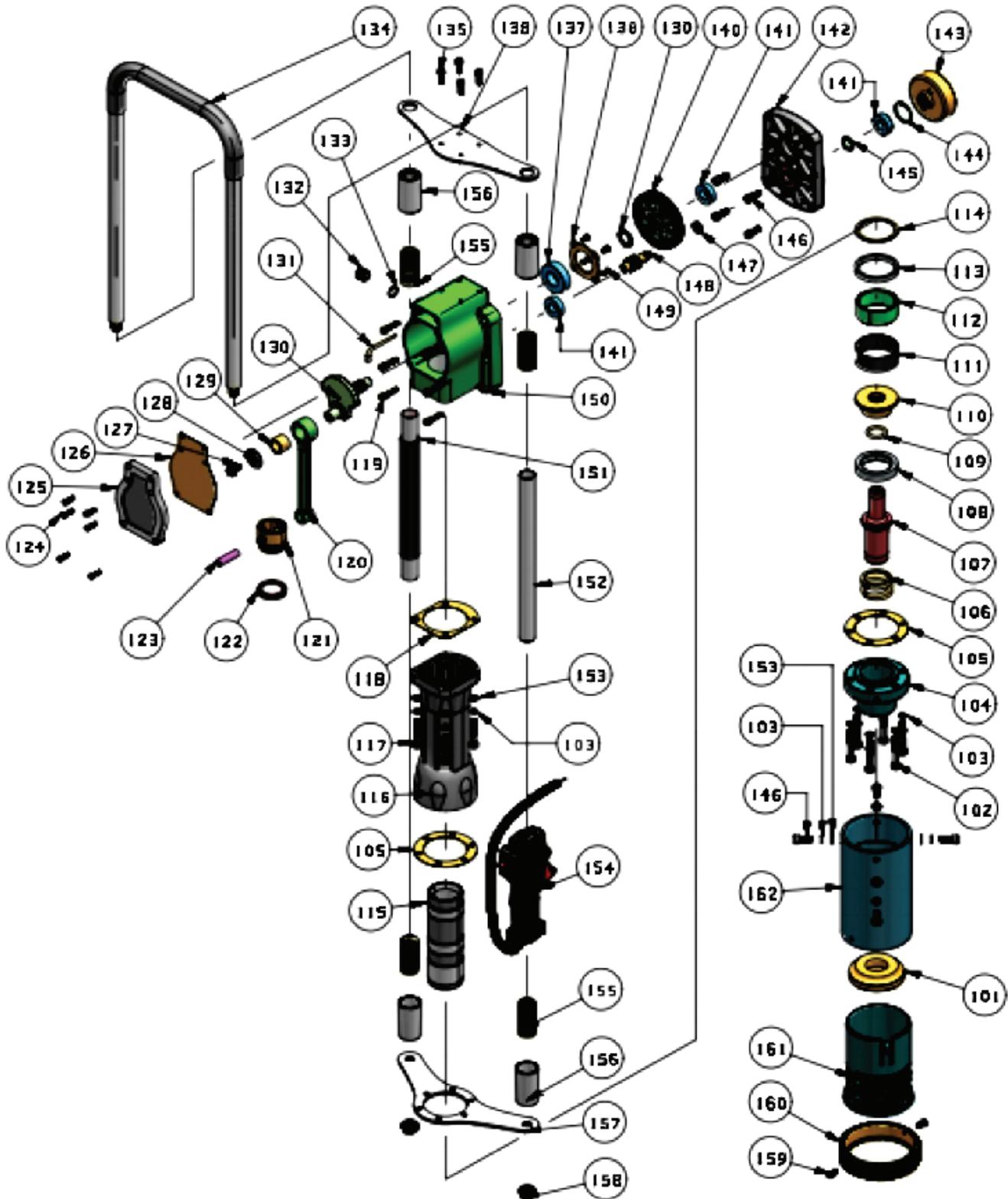
STAKE DRIVER- EXPLODED VIEW / PARTS LIST (MS-PD1002/PD1004):			
Part	SKU	Description	Quantity
	MS-PD099	Tent Stake Metal Head	1
	MS-PDTSK	Tent Stake Metal Head Kit Includes: MS-PD099, MS-PD100, MS-PD101, MS-PD102, MS-PD103	1
	MS-PDFPK	Fence Post Metal Head Kit Includes: MS-PD101, MS-PD102, MS-PD103, MS106	1
	MS-PD100	Hammer Block Small	1
102	MS-PD102	M8X55 Hexagon socket head screw	6
103	MS-PD103	Φ8 spring washer	16
105	MS-PD105	Round seal gasket	2
106	MS-PD106	Buffer spring	1
107	MS-PD107	Punch hammer	1
108	MS-PD108	Big circle	1
109	MS-PD109	O ring	1
110	MS-PD110	Tailstock	1
111	MS-PD111	Open ring rubber	1
112	MS-PD112	Open ring	1
113	MS-PD113	Small circle	1
114	MS-PD114	Cylinder gasket	1
115	MS-PD115	Cylinder	1
116	MS-PD116	Front placket	1
117	MS-PD117	M8X45 Hexagon socket head screw	4

Distributed by: **TENTANDTABLE.COM**

STAKE DRIVER- EXPLODED VIEW / PARTS LIST (MS-PD1002/PD1004):			
Part	SKU	Description	Quantity
118	MS-PD118	O ring 70x67x1.5	1
119	MS-PD119	M6X30 hexagon socket head screws, spring washer assembly	6
120	MS-PD120	Connecting rod	1
121	MS-PD121	Piston	1
122	MS-PD122	Double lip ring	1
123	MS-PD123	Round Piston Pin 12x44	1
124	MS-PD124	M5x16 hexagon socket head screw, flat washer and spring combination	6
125	MS-PD125	Upper cover	1
126	MS-PD126	Gear box cover- paper washer	1
127	MS-PD127	Flange hexagon screw M8x16LH	1
128	MS-PD128	Pressing plate	1
129	MS-PD129	Fluid bearing	1
130	MS-PD130	Eccentric shaft	1
131	MS-PD131	Wick	1
132	MS-PD132	Oil leveler	1
133	MS-PD133	Oil leveler ring	1
134	MS-PD134	Handle	1
135	MS-PD135	M6X20 hexagon socket head screws, spring, washer assembly	4
136	MS-PD136	Upper support plate	1
137	MS-PD137	Bearing 6205	1
138	MS-PD138	Cover 6205	1
139	MS-PD139	Ring	1

STAKE DRIVER- EXPLODED VIEW / PARTS LIST (MS-PD1002/PD1004):			
Part	SKU	Description	Quantity
140	MS-PD140	Big gear	1
141	MS-PD141	Bearing 6202	3
142	MS-PD142	Mid cover	1
143	MS-PD143	Passive plate	1
144	MS-PD144	Circlip for Hole	1
145	MS-PD145	Framework oil seal	1
146	MS-PD146	M8x20 hexagon socket head screw, and spring washer combination	4
147	MS-PD147	Seal cover	1
148	MS-PD148	Gear shaft	1
149	MS-PD149	M5X12 countersunk rivet	4
150	MS-PD150	Gear box	1
151	MS-PD151	Handle	1
152	MS-PD152	Handle tube	1
153	MS-PD153	Ø8 flat washer	4
154	MS-PD154	Switch component	1
155	MS-PD155	Damping spring	4
156	MS-PD156	Spring cover	4
157	MS-PD157	Under support plate	1
158	MS-PD158	Flange gear nut	2
201	MS-PD201	Impact plate	1
201w	MS-PD201W	Washer (inside impact plate)	1
202	MS-PD104	Iron plate	1

POST DRIVER- EXPLODED VIEW / PARTS LIST (MS-PDFP3/PDFP5):



Distributed by: **TENTANDTABLE.COM**

POST DRIVER- EXPLODED VIEW / PARTS LIST (MS-PDFP3/PDFP5):			
Part	SKU	Description	Quantity
	MS-PD099	Tent Stake Metal Head	1
	MS-PDTSK	Tent Stake Metal Head Kit Includes: MS-PD099, MS-PD100, MS-PD101, MS-PD102, MS-PD103	1
	MS-PDFPK	Fence Post Metal Head Kit Includes: MS-PD101, MS-PD102, MS-PD103, MS106	1
	MS-PD100	Hammer Block Small	1
101	MS-PD101	Impact plate	1
102	MS-PD102	M8X55 Hexagon socket head screw	6
103	MS-PD103	Φ8 spring washer	20
104	MS-PD104	Iron plate	1
105	MS-PD105	Round seal gasket	2
106	MS-PD106	Buffer spring	1
107	MS-PD107	Punch hammer	1
108	MS-PD108	Big circle	1
109	MS-PD109	O ring	1
110	MS-PD110	Tailstock	1
111	MS-PD111	Open ring rubber	1
112	MS-PD112	Open ring	1
113	MS-PD113	Small circle	1
114	MS-PD114	Cylinder gasket	1
115	MS-PD115	Cylinder	1
116	MS-PD116	Front placket	1
117	MS-PD117	M8x45 Hexagon socket head screw	4

Distributed by: **TENTANDTABLE.COM**

POST DRIVER- EXPLODED VIEW / PARTS LIST (MS-PDFP3/PDFP5):			
Part	SKU	Description	Quantity
118	MS-PD118	O-ring 70x67x1.5	1
119	MS-PD119	M6x30 hexagon socket head screws, spring washer assembly	6
120	MS-PD120	Connecting rod	1
121	MS-PD121	Piston	1
122	MS-PD122	Double lip ring	1
123	MS-PD123	Round Pin 12x44	1
124	MS-PD124	M5x16 hexagon socket head screw, flat washer and spring combination	6
125	MS-PD125	Upper cover	1
126	MS-PD126	Gear box cover- paper washer	1
127	MS-PD127	Flange hexagon screw M8X16LH	1
128	MS-PD128	Pressing plate	1
129	MS-PD129	Fluid bearing	1
130	MS-PD130	Eccentric shaft	1
131	MS-PD131	Wick	1
132	MS-PD132	Oil leveler	1
133	MS-PD133	Oil leveler ring	1
134	MS-PD134	Handle	1
135	MS-PD135	M6x20 hexagon socket head screws, spring, washer assembly	4
136	MS-PD136	Upper support plate	1
137	MS-PD137	Bearing 6205	1
138	MS-PD138	Cover 6205	1
139	MS-PD139	Ring	1

Distributed by: **TENTANDTABLE.COM**

POST DRIVER- EXPLODED VIEW / PARTS LIST (MS-PDFP3/PDFP5):			
Part	SKU	Description	Quantity
140	MS-PD140	Big gear	1
141	MS-PD141	Bearing 6202	3
142	MS-PD142	Mid cover	1
143	MS-PD143	Passive plate	1
144	MS-PD144	Circlip for Hole	1
145	MS-PD145	Framework oil seal	1
146	MS-PD146	M8x20 hexagon socket head screw, and spring washer combination	8
147	MS-PD147	Seal cover	1
148	MS-PD148	Gear shaft	1
149	MS-PD149	M5X12 countersunk rivet	4
150	MS-PD150	Gear box	1
151	MS-PD151	Handle	1
152	MS-PD152	Handle tube	1
153	MS-PD153	Φ8 flat washer	8
154	MS-PD154	Switch component	1
155	MS-PD155	Damping spring	4
156	MS-PD156	Spring cover	4
157	MS-PD157	Under support plate	1
158	MS-PD158	M18 Flange gear nut	2
159	MS-PD159	M6x12 Hexagon socket head screw	2
160	MS-PD160	Retaining snap ring	1
161	MS-PD161	80mm sleeve	1
162	MS-PD162	102mm (4") adapter	1