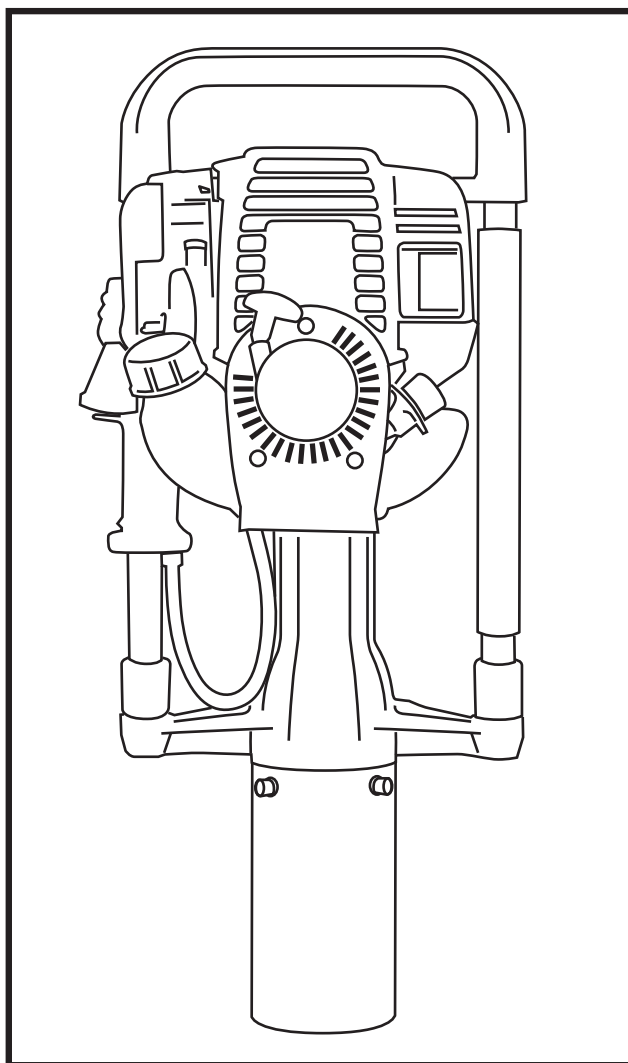




THOR – Post Driver Instructions



New Design

**THOR
STAKE/POST
DRIVERS**

MS-PD1002

MS-PD1004

MS-PDFP3

MS-PDFP5

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Made in China [ND]

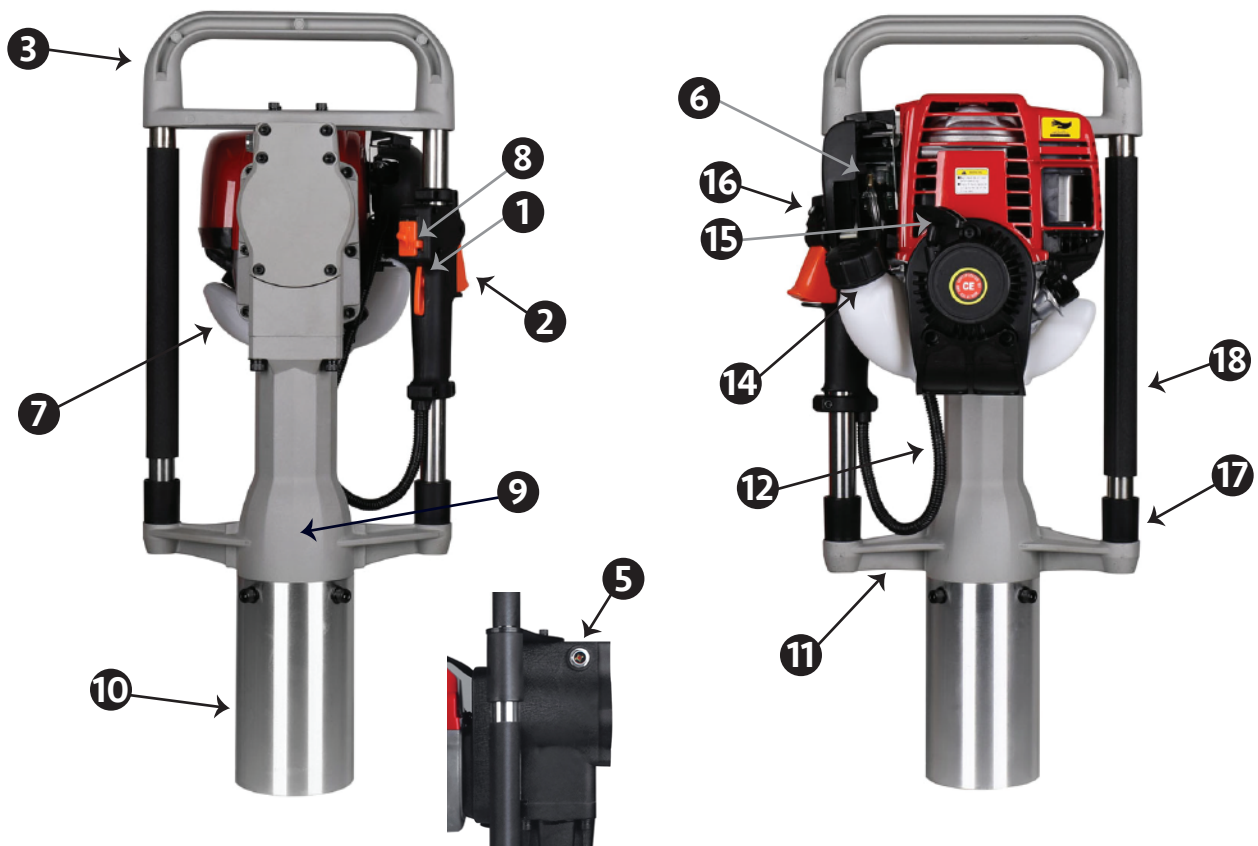
THOR-POST DRIVERS OVERVIEW

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	14	Fuel Tank Lid
2	Throttle Switch	8	Stop Switch	15	Starter
3	Handle	9	Hammer Case	16	Air Filter
		10	Piling Socket	17	Positioning Sleeve
5	Lube Oil Filling Port	11	Support Plate	18	Grip
6	Primer Bubble	12	Throttle Cable		



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 filter 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 primer 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).

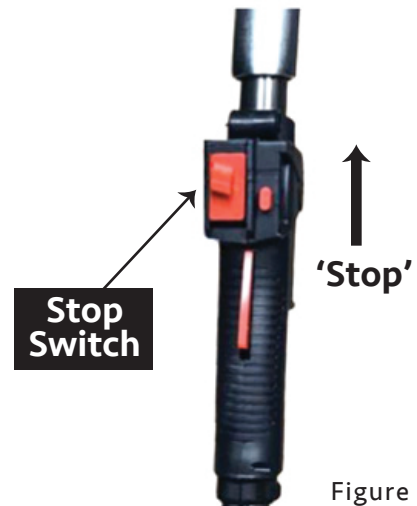


Figure 3.

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).

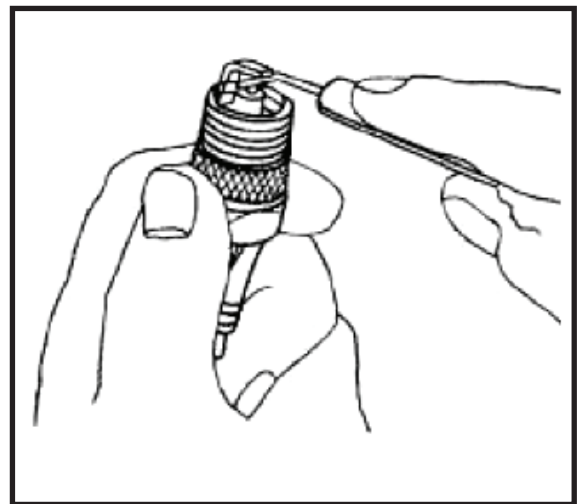


Figure 7.

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.

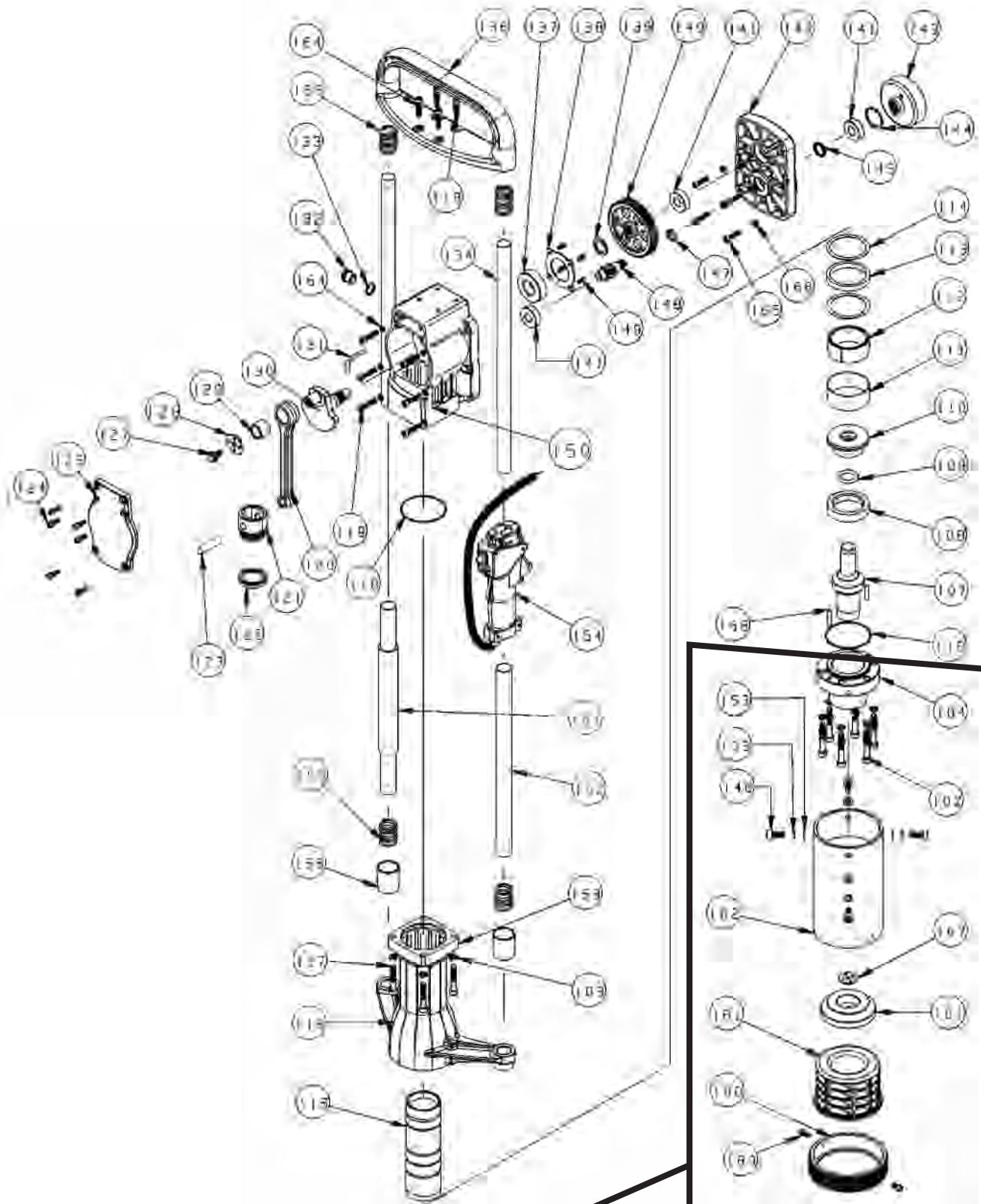


Figure 10.

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							✓

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



POST DRIVER- HEAD-KIT PARTS LIST

POST DRIVER- EXPLODED VIEW / PARTS LIST (MS-PDFP3/PDFP5):			
Part	SKU	Description	Quantity
	MS-PDTSK	Tent Stake Metal Head Kit Includes: MS-PD171, MS-PD170, MS-PD202, MS-PD203, MS-PD103, MS-PD102, -PD201W/201	1
	MS-PDFPK-ND	Fence Post Metal Head Kit Includes: MS; -PD101, -PD102, -PD103, -PD146, -PD153, -PD160, -PD161, -PD162, -PD169	1
	MS-PD100	Hammer Block Small	1
101	MS-PD101	Hammer Plate	1
102	MS-PD102	M8X55 Hexagon socket head screw	6
103	MS-PD103	Φ8 spring washer	20
104	MS-PD104-ND	Metal Head	1
107	MS-PD107	Impact hammer	1
108	MS-PD108-ND	Large Rubber Band	1
109	MS-PD109	O ring	1
110	MS-PD110-ND	Shank Adapter	1
111	MS-PD111	Open ring rubber	1
112	MS-PD112	Open ring	1
113	MS-PD113	Small Rubber Band	1
114	MS-PD114	Cylinder gasket (59x69-2)	2
115	MS-PD115	Air Cylinder	1
116	MS-PD116	Front placket	1
117	MS-PD117	M8x45 Hexagon socket head screw	4
118	MS-PD118	O-ring 70x67x1.5	2
119	MS-PD119	M6x30 hexagon socket head screws, spring washer assembly	10
120	MS-PD120	Connecting rod	1

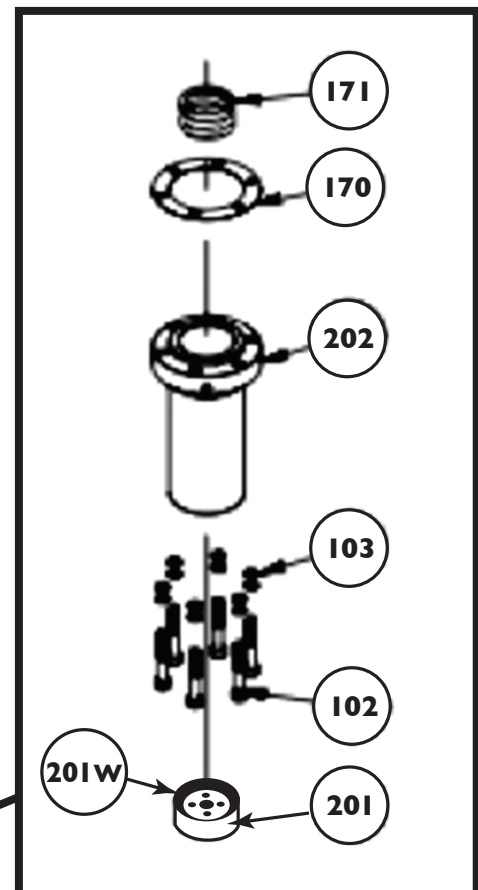
POST DRIVER- EXPLODED VIEW / PARTS LIST (MS-PDFP3/PDFP5):			
Part	SKU	Description	Quantity
121	MS-PD121	Piston	1
122	MS-PD122	Lip Ring	1
123	MS-PD123	Round Pin 12x44	1
124	MS-PD124	M5x16 hexagon socket head screw, flat washer and spring combination	6
125	MS-PD125	Gear Box Cover	1
127	MS-PD127	Flange hexagon screw M8X16LH	1
128	MS-PD128	Pressing plate	1
129	MS-PD129	Quill 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-ND	Guide Tube	1
136	MS-PD136	Upper support plate	1
137	MS-PD137	Bearing 6205	1
138	MS-PD138	Gland Cover 6205	1
139	MS-PD139-ND	Shaft Retainer	1
140	MS-PD140	Big gear	1
141	MS-PD141	Bearing 6202	3
142	MS-PD142	Mid cover	1
143	MS-PD143	Clutch Drum/plate	1
144	MS-PD144	Circlip for Hole	1

POST DRIVER- EXPLODED VIEW / PARTS LIST (MS-PDFP3/PDFP5):			
Part	SKU	Description	Quantity
145	MS-PD145	Framework oil seal	1
146	MS-PD146	M8x20 hexagon socket head screw, and spring washer combination	4
147	MS-PD147	Seal/gland 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 Block	1
155	MS-PD155	Damping spring	4
156	MS-PD156	Spring Pocket/cover	2
160	MS-PD160	Retaining snap ring	1
161	MS-PD161	Piling Sleeve (60-78mm)	1
162	MS-PD162	102mm (4") adapter	1
164	MS-PD164-ND	Spring	10
165	MS-PD165-ND	M6x25 Hex Socket Screw	4
166	MS-PD166-ND	Φ6x12-2 Flat Washer	4
167	MS-PD167-ND	Spacer	1
168	MS-PD168-ND	6x27 Straight Pin	2
169	MS-PD169-ND	M6x12 Hex Socket Steel Screws	2

STAKE DRIVER- HEAD-KIT / PARTS LIST (MS-PD1002/PD1004):

**(Exploded view is the same
as the Post Driver)**

STAKE DRIVER- HEAD-KIT PARTS LIST



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