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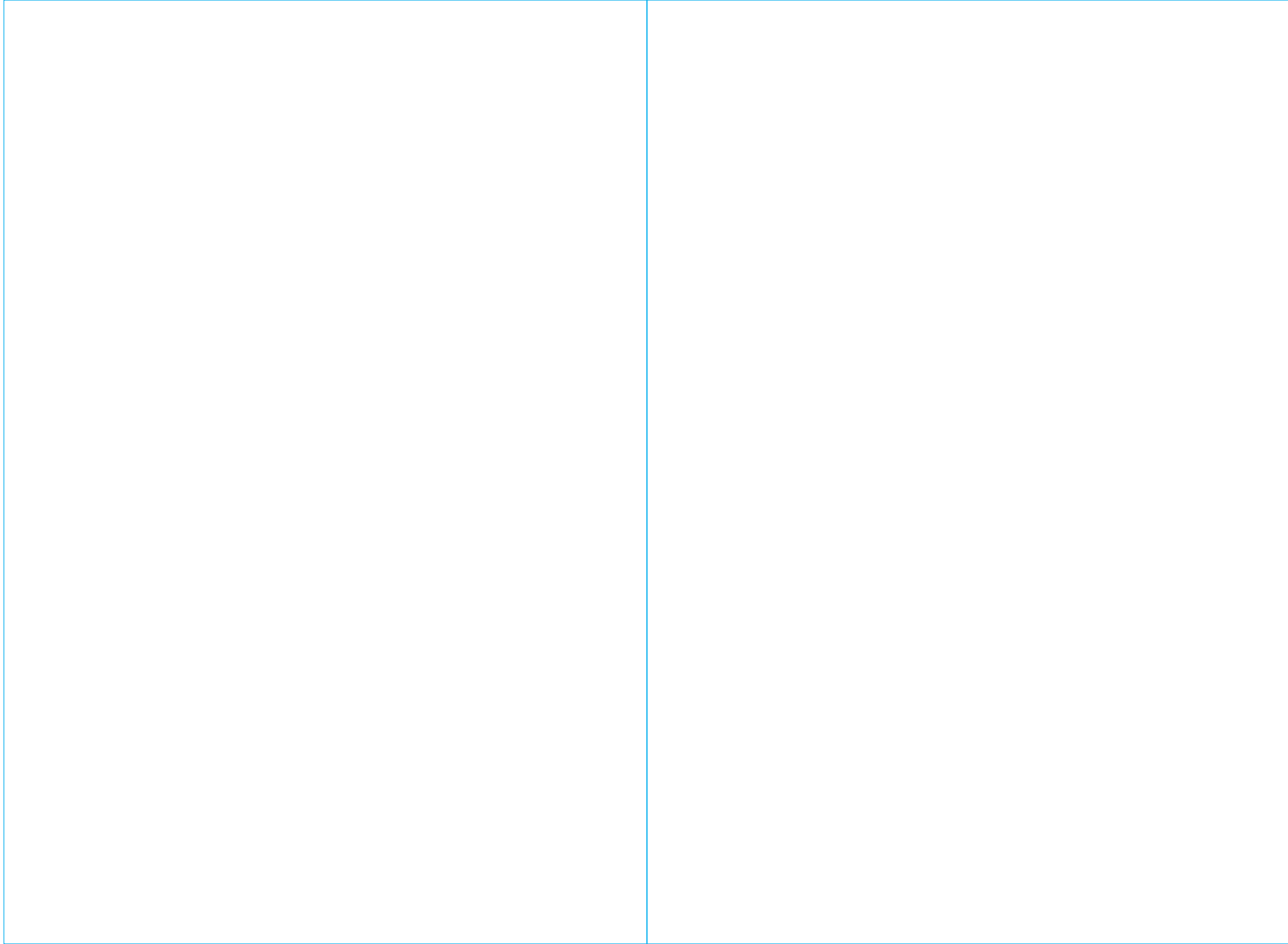
DEMOLITION HAMMER

45J

INSTRUCTION MANUAL



Read and follow all safety precautions in instruction manual.



Sr. no	SPARE PARTS NAME	Quantity/nos	Sr. no	SPARE PARTS NAME	Quantity/nos
1	M8×40 screw set	6	44	rear cover	1
2	Cylindrical pin φ4×18	1	45	screw set M6×35	4
3	lock pin sleeve	1	46	screw set M6×55	6
4	washer φ12.5×φ18×2	1	47	gear box top cover	1
5	lock pin spring φ16×φ1.5×25	1	48	bearing 6302	1
6	iron head	1	49	D22 shaft circlip	1
7	rotary handle cushion φ48×φ67×14.5	1	50	crankshaft gear	1
8	O ring φ23×φ5.4	1	51	Woodruff key 4×6.5×16	2
9	rotary handle sleeve	1	52	crankshaft distance sleeve	1
10	open ring sleeve	1	53	gear box seal ring 8 type	1
11	open ring	1	54	middle cover	1
12	lock pin	1	55	column φ6×18	2
13	washer φ57×φ68.5×2	1	56	gear box seal ring	1
14	open ring sushion φ58.5×φ68.5×9.5	1	57	bearing 6205	1
15	front cover	1	58	6205 bearing cover	1
16	screw set M8×40	4	59	screw M5×16	7
17	O ring φ59×φ2	1	60	crankshaft	1
18	piston cylinder	1	61	gear box	1
19	Piston ring	1	62	bearing 6201	1
20	piston pin φ12×44	1	63	middle gear	1
21	piston	1	64	6001 bearing cover	1
22	link rod	1	65	6001 bearing	1
23	needle bearing NK1820	1	66	6203 bearing	1
24	link rod washer	1	67	hexagon screw M5×12	3
25	screw set M8×25	1	68	rotor	1
26	oil rope	1	69	6201 bearing	1
27	Fuel tank gasket I	1	70	cross-recessed head screw KA40×16	6
28	oil rope washer	1	71	handle cover	1
29	screw set M4×12	4	72	rubber column φ4×10	2
30	fuel tank gasket	1	73	switch	1
31	fuel tank cover	1	74	cable clamp	1
32	screw set M5×16	4	75	handle	1
33	O ring 20×φ2.5	1	76	Hexagon screw set M6×22	4
34	oil window	1	77	cable sleeve	1
35	ST screw ST4.8×80	2	78	cable with plug	1
36	fan guide	1	79	side handle	1
37	stator	1	80	side handle frame	1
38	Motor housing	1	81	washer φ12.5×φ23×1	2
39	brush holder board	2	82	pin 3×25	2
40	brush holder	2	83	side handle locking lever	1
41	carbon brush	2	84	side handle clamp	2
42	flat spring	2	85	side handle knob	1
43	ST screw ST4.2×16 C type	4			

GENERAL SAFETY PRECAUTIONS

1. Always keep the workplace clean. Contaminated workplace and workbenches increase the risk of accidents.
2. Follow the operation manual carefully. Do not use the tool when it rains. Also do not use the tool in damp locations. The workplace should be well-lit. Do not use the tool near flammable liquids or gas. During operation, as well as power on and power off, the tool generates sparks. Therefore, never use the tool in places where there are varnishes, paints, gasoline, dissolvers, gas, adhesives and other flammable and explosive materials.
3. To prevent electric shock during operation, make sure that the tool case is not in contact with grounded objects, for example, when laying pipes, when installing heating batteries, plates, refrigerators, etc.
4. Keep children away from the electric tool while it is operating. Keep unauthorized persons away from the electric tool and power extender.
5. Store the tool in a dry and lockable place so that it does not fall into the hands of children or unauthorized persons.
6. Use the tool without pressure and applying force. The tool will work better and more reliably if you use the recommended speeds by the operation manual.
7. Use only those types of tools that directly comply with the requirements of this type of work. For jobs requiring a high power tool, you cannot use a tool with a lower power. It is recommended to use tools suitable for the application purposes, for example, do not use a circular saw in order to saw down knots or trees.
8. During work, wear comfortable and suitable clothing. Do not also wear apparels during operation. Loose parts of clothing or apparels can be tightened by moving parts of the tool. During work on the street, rubber gloves and comfortable shoes with lug sole should be worn on so that the sole does not slip.
9. If a large amount of dust forms during operation, wear safety goggles and an anti-powder mask.
10. Handle the cable with care. When unplugging, do not pull the cable. Do not leave the cable in the heat, on the oil surface or on the surface with sharp edges.
11. Secure the workpiece securely. Use clamps and jaw vices if possible to secure the part. This is more reliable than holding the part.
12. Do not tilt the tool too much. Always maintain a stable position and a good balance.
13. Watch closely for the tool conditions. For better and more reliable use, they must always be sharp and clean. Follow the operation manual for lubricating and replacing the accessories. Regularly check the tool cable condition and, if damaged, return it to the technical service centers for repairs. From time to time, check the power extender and replace it if damaged. Keep handles in a dry, clean place; do not allow oil and grease to enter the handles.
14. Disconnect tool from the mains, when not in use, and do not power on them during servicing or replacing accessories, such as a circular saw blade, drill bit, blade, etc.
15. Always check before power on the tool that the adjusting wrench and the wrench are removed.
16. Avoid involuntary power on the tool. Do not hold the connected tool by the switch. Before attaching, make sure that the tool is disconnected.
17. When working outdoors, use an appropriate power extender. Use only a power extender fits the wire cross-section.
18. Always keep the work process under control. Do not use tool if you are tired.
19. Inspect damaged parts carefully. Before further use of the tool, carefully check that the tool functions properly and if all the prescribed functions are performed by the tool. Also check the installation and fastening of moving parts, watch for parts breakage and other conditions that can adversely affect the operation of the tool. Damaged parts and protective equipment must be exchanged only in technical service centers. Defective switches are also exchanged in these centers. Do not use the tool if it cannot be powered on or off by the switch.
20. Use electric tools only for the purpose intended in the operation manual.
21. Using of the accessory components that are not listed in the operation manual or in the catalog may cause the tool damage.
22. Repair the tool only in special technical service centers. The manufacturer is not liable for damage or damage caused to the tool as a result of repair by persons who do not have special authority for this or as a result of careless handling of the tool.
23. In order to ensure the production integrity of the tool, never remove the built-in cases or bolts.
24. Do not touch the moving parts and accessories if the tool is not powered off.
25. Use a tool with low power consumption as indicated on the type plate of the tool, otherwise, due to overload, the quality of the surface to be treated, and consequently the efficiency, can be significantly reduced.
26. Do not wipe the plastic parts with solvent. Solvents such as gasoline, solvent, carbon tetrachloride, alcohol, ammonia and oil can damage the plastic material or cause cracks. When cleaning plastic parts, use soapy water and a wash-cloth.
27. Use only original replacement parts.
28. A detailed diagram of the elements in the operation manual is provided only for technical service centers.

INTENDED USE

Electric demolition hammer (electric breaker) is the hand operated power tool with double insulation, driven by a single-phase electromotor. The tool has good safety features, reliability, high efficiency and ease for operation. Received wide acceptance for the pipeline laying, mechanical installation and construction of water supply and sewerage, interior decoration, construction of port facilities and other construction works. It is used with drill pick or other appropriate bits, for example: mortise chisel, blade - for crushing, chipping, opening, wall chasing of concrete and brick-masonry constructions, asphalt pavement and other works.

OPERATION PRINCIPLE

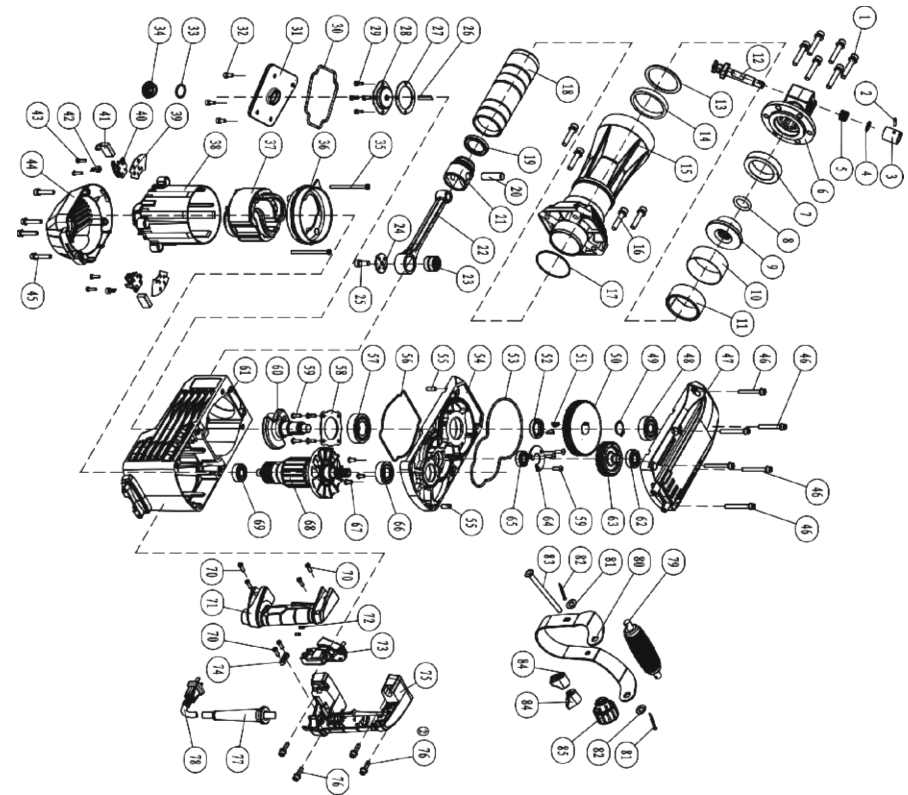
The drive mechanism transmits motion to a piston, which reciprocates inside the air cylinder, creating compressed air. The pressure of compressed air inside the cylinder transmits motion to the hammer upper part, making reciprocating movements, due to which blows are made, just like we do with a conventional hammer. Due to the presence of a pneumatic design, the impact force of an electric demolition hammer is significantly higher than that of the impact drill and electric rotary hammer.

The operation principle of the electric demolition hammer is divided into two stages:

1. Impact stage:
The rotating electromotor of the electric rotary hammer transmits motion to the crank-driven piston rod, causing the piston to make reciprocating movements, when compressed inside the air cylinder, a hammer impact is made, which is transmitted to the shank of the rotating head, thus the hammer impact process is considered complete.
2. Rotation stage: the gear of the rotating cylinder imparts movement to the rotating head. There is a simultaneous rotation with the impacting.

PRODUCT SPECIFICATIONS

Rated voltage	220 V
Rated frequency	50 Hz
Power	1,400W
Blows per minute	3100bpm
No load speed	1850r/min
Impact force	45J
Chuck	hex key, 30 mm
Weight	15 KGS



MAINTENANCE

1. REPLACING CARBON BRUSHES

When the carbon brushes wear to the permissible limit, the tool is automatically turned off. When this happens, loosen the screws that hold the brush holder cover. Remove the cover. Change both carbon brushes at the same time. Use only identical carbon brushes.

2. LUBRICANT CHANGE

To warm up the tool, turn it on for a few minutes. Then turn it off and unplug it. Loosen the screws and disconnect the handle. Use the box wrench to unscrew the cardan cover. Place the tool on the table surface in a vertical position with the holder at the top. This will allow the old oil to drain into the cavity of the cardan body. Remove the old grease. Thoroughly wipe the cavity and replace the old grease with a new one. The use of more than 30 grams amount of grease may lead to incorrect impact action and output of the tool failure. Reinstall the cardan cover and tighten it with the box wrench. Install the handle.

ATTENTION:

- Be careful not to damage the terminals or live wires while wiping the cardan body cavity from old grease or when installing the handle.
- Do not overtighten the cardan cover, it is made of plastic and may break.

Tool maintenance must be performed only by experienced personnel of authorized technical service centers.

FUNCTIONAL CAPABILITIES AND FEATURES OF THE ELECTRIC DEMOLITION HAMMER

Functional capabilities

The main function of the electric demolition hammer is to break and loosen all kinds of solid materials. This tool is indispensable for the various constructions removing, the destruction of frozen ground, and removal of road covering, metal cutting and other works.

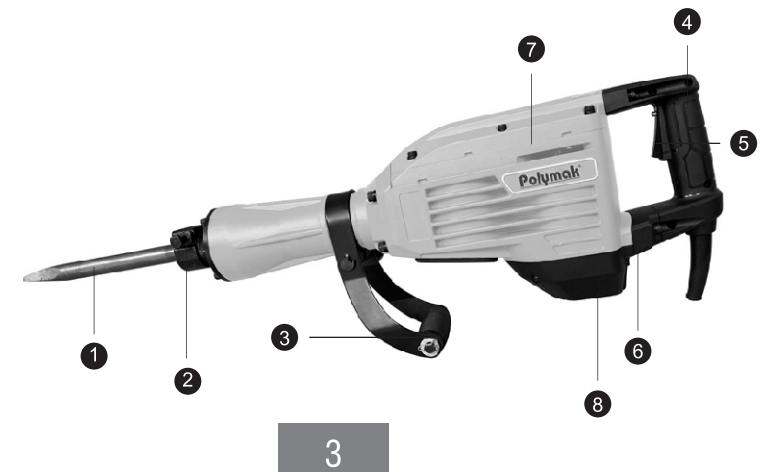
Features

- Sliding type chuck, very strong fixation and locking, which makes the bits installation and removal process quick and convenient.
- Covering the additional handle with soft rubber effectively reduces vibration. The possibility of its rotation through 360°, which makes the work convenient and comfortable.
- Optimal mechanical design provides greater impact force and strength.
- High quality electromotor ensures high working efficiency.
- Unique damping spring and plate will significantly reduce the rear backblow vibration, which reduces operator fatigue.
- The on/off control lock function is suitable for extended operation.

Note: ■ – available □ – not available

MODEL	DOUBLE INSULATION	REVERSE ROTATION	SELF-BLOCKING KEY	ADDITIONAL HANDLE	VIBRATION REDUCING HANDLE
PMDH15P	■	□	■	■	■

ELECTRIC DEMOLITION HAMMER ASSEMBLY



1. BIT

2. SLIDING CHUCK

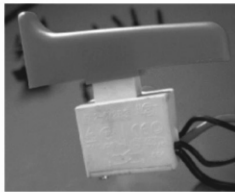
3. ADDITIONAL HANDLE

Rubberized, during operation does not slip, reduces the level of vibration and noise, thereby increasing productivity, reducing the work intensity.

4. HANDLE

Rubberized, which is not allowed to slip, increases productivity.

5. ON/OFF CONTROL



6. SELF-BLOCKING KEY

Necessary for the continuous tool operation

7. CASE

Made of aluminum, sufficient light

8. ELECTROMOTOR



First gear



Second gear

A. Gear

The technology of thermal processing is used. The large and small teeth are hardened in vacuum, which ensures a high level of hardness of the gears and increases energy transfer, efficiency and service life. Transmission of high energy, high efficiency, high reliability, long service life. Gears are made of high-quality alloy steel, which greatly improves the accuracy of assembly and the lifetime.



B. Bearings

During operation, bearings reduce the rolling sense of the output shaft.



C. Rotor

On the plate of high-quality cold-rolled silicon steel is applied hot wire at 230°C. Installed switch with a silver content of 8/10000, using the method of fully automatic thread winding. The rotor consists of parts that allow the motor to rapidly produce powerful energy and show continuous operation.



D. Stator

The stator is a fixed part of the electric demolition hammer; its role is to create a rotating magnetic field. First of all, it consists of stator metal core, stator winding and frame. The copper thread inside is wound completely automatically, what increases the strength and service life.



E. Carbon brushes

For their creation used imported materials. Brushes interact with the switch, switching the current of the electromotor, driving the output shaft, which allows to increase the service life (is relating to the rapidly wearing parts of the electromotor).

RULES OF OPERATION

RULES OF INDIVIDUAL SAFETY DURING WORKING WITH ELECTRIC DEMOLITION HAMMER

BEFORE START OPERATION DRAW ATTENTION

1. Make sure that the connected power supply matches the tool model and that the current leakage protection device is installed.

2. The bit fits to the holder and fixed strongly.

3. If the work place is far from the power supply, it is recommended to use an extension cord with sufficient capacity to meet the necessary requirements.

1. The operator must wear safety glasses to protect the eyes. While working at the face level, it is necessary to wear a protective mask.

2. During operation, it is necessary to hold the tool with both hands to prevent hand dislocation when jamming the rotation.

3. After starting the tool, first work at idle, thus, check and make sure that the movements of the tool are free, unclosed. During operation, the increase in effort should be uniform, you cannot make excessive efforts.

4. During operation, hold the tool by the handle. To start work, apply the borer to the work surface, then start the process itself, efforts to make proportionate to avoid rolling motion. If the speed drops sharply, the applied force must be reduced to prevent the motor from overloading. It is strictly forbidden to apply pressure on the tool by the shoulder.

5. Continuous operation for a long time is not allowed.

6. During work it is necessary to establish a stable operating platform around which to build a protection enclosure.

7. It is strictly forbidden to overload the tool during operation. During operation, it is necessary to pay attention to the sounds and temperature rise, when detecting emergency situations, immediately stop work and conduct an inspection.

8. Do not release the tool from your hands when working.

9. After prolonged operation, the tip becomes very hot, so be careful when replacing the nozzle, otherwise it may cause severe burns.

10. Always wear safety glasses when using this power tool. Use a dust mask for work which produces dust.

11. Use noise limiting headphones when using a power tool for long periods of time. Prolonged exposure to high-intensity noise can cause hearing loss.

BEFORE START OPERATION, CHECK THE FOLLOWING PARAMETERS

1. On the case, handle no cracks, damages.

2. Power cord, plug is fully operational, on/off control are working properly, zero is connected correctly, firmly and securely.

3. All protective covers are firmly fixed, electric protective device is reliable.