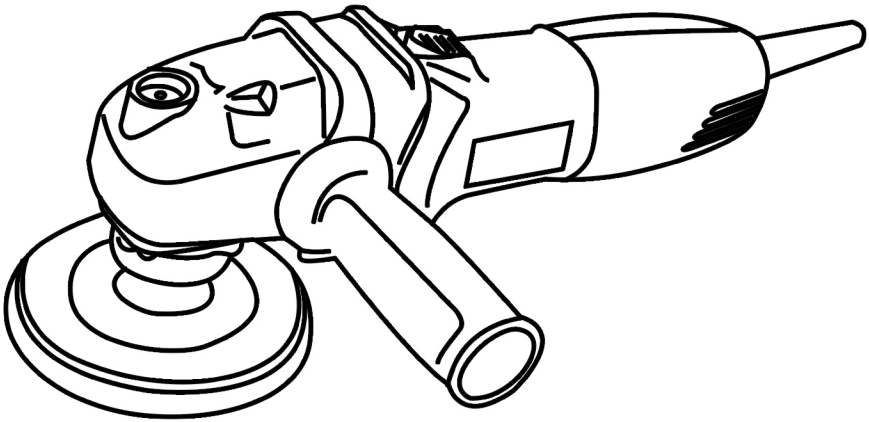
VARIABLE SPEED GRINDER/POLISHER

OPERATING MANUAL



HD-5

Voltage: 120V, 60Hz

Power: 800 Watts

Speed: 700-3000 RPM

Polishing Disc Dia: 5″

Arbor Size 5/8-11″

INTRODUCTION

Hardin Grinder / Polisher is designed and engineered to provide handymen with a pleasant and enjoyable experience which results in efficient productivity. Safety, performance and durability have been given top priority in the design of this polisher to maintain quality standards.

GENERAL SAFETY

Read all safety warnings and instructions. Failure to follow the warnings and/or instructions may result in electrocution, fire hazard and/or serious personal injury. The term POWER TOOL in this manual refers to all corded and cordless power tools.

WORK AREA

a) Keep the working space well lit, clean and adequate for power tool usage. Inadequate light and clutter work spaces can invite hazards.
b) Make sure that there aren't any flammable or combustible liquids or gases in the work environment such as lacquer, paint, benzene, thinner, gasoline and adhesive agents. Presence of these materials in the working environment may cause sparks which can result in fire hazard.
c) Keep children and visitors away from the working area and your power tools and equipment to avoid any accidents.

ELECTRICAL SAFETY

a) Ensure that outlet is compatible with power tool plug. Do not modify the plug to make it work and never use any adapter plugs with grounded power tools. Compatibility between outlet and plug will minimize the risk of electrocution.
b) Don't let your body parts get in contact with parts of the power tool or equipment including radiators, pipes, ranges and refrigeration enclosures. If your body is earthed or grounded, the risk of electrocution becomes high.
c) Never expose power tools to rain or water and never store them in damp areas. Moisture entering your power tool will pose increased risk of electrocution.
d) Never abuse the electrical cord of the tool. Do not pull it to unplug the tool. Keep cord away from heat, oil, sharp corners and moving parts. Entangled or damaged cords increase the chances of electrocution hazard.
e) When working outdoors, you may need extension cords to increase your tool's reach. In such situations, only use cords made and marked for outdoor usage.
f) If you must operate a power tool in wet or damp work area, use a Ground Fault Circuit Interrupter (GFCI) power supply. It will decrease the risk of electrocution.
g) Ensure that your extension cord is in good condition and use the adequate enough cord that can carry the current your polisher will draw. An inadequate cord will cause a drop in in-line voltage which may result in loss of power and overheating.

PERSONAL SAFETY

a) Be on the alert during power tool operation and always know what you are doing. Never use a power tool under the influence of drugs, medication or alcohol. Momentary lack of focus can invite serious hazards when operating power tools.
b) Always use appropriate personal protective equipment. Use eye protection, dusk mask, non skid safety shoes, hard hat and/or hearing protection when conditions warrant them. This will significantly reduce the risk of personal injury.
c) Never roam around with the tool plugged in and your finger on the trigger to avoid accidental starts. Switch it off after every use. Before picking up or connecting your tool to a power source, ensure it is turned off.
d) Make it a habit to check and remove any wrenches or keys from the tool before turning it on. Mounted key or wrench can cause serious damage.
e) Never try to overreach. Keep your posture comfortable and balanced at all times so you can manage unexpected situations.
f) Keep loose clothing, body parts and hair away from the parts of the tool. It's recommended to use protective hair covering.
g) If there are devices provided for dust extraction and collection, make sure they are properly connected and functional. Use of dust collection systems can decrease the risk of dust related hazards.

POWER TOOL SAFETY & CARE

a) Don't try to extract additional performance from the tool by exerting force. Let the power tool achieve its optimal performance naturally. Always use the power tool that is appropriately powerful and adequate for the job at hand.
b) Never use the tool if its switch doesn't work. Get it repaired or replaced from an authorized service center. Unreliable switch can prove to be dangerous.
c) Before storing the tool, making any replacements or periodical maintenance, unplug the tool from the power source. This minimizes the risk of accidental starts.
d) Power tools that are not in use shall be kept in a safe place where they are not accessible to children. Never allow any person to operate a power tool who is unfamiliar with these instructions. Power tools in the hands of untrained operators are open invitation to accidents.
e) Check your tool for alignment and binding of moving parts, damaged parts, mounting and any other flaws that might affect the operation of your tool. Maintain your tools with care and repair or replace when necessary.
f) Always use the power tool and its accessories according to the instructions provided in this manual, nature of your job and working conditions. Using a power tool that's not compatible with any of the aforementioned criteria may result in a hazard.

TECHNICAL SAFETY

a) All the accessories to be used with this tool must be rated for at least 3000 RPM.
b) Before operating the tool, always inspect the backing pad and polishing discs and replace the damaged pads/discs if necessary.
c) When operating the polisher, always wear eye protection.
d) Never use the polisher with blades that are meant for cutting wood or metal.
e) Keep your grip firm on the tool at all times.
f) Keep your body parts away from the moving parts of the polisher to prevent personal injuries.
g) Ensure that work piece is well supported and stable.
h) Never touch the work piece right after polishing, it may be extremely hot.
i) To prevent electrocution, use rubber gloves and boots.
j) Take care of the tool and do not let water or moisture seep into the motor.
k) Always use a Ground Fault Circuit Interrupter (GFCI) with this tool.

GUIDELINES BEFORE USE

a) Make yourself aware about the power tool before using it. Learn how to use it and its limitations along with the potential risks and hazards associated with its use. Always read the instruction manual thoroughly and carefully.
b) Always use proper eye protection. Regular glasses are only impact resistant; they don't provide adequate level of safety as safety glasses do.
c) If dust is being produced during operation, wear a dust mask to prevent lung diseases.
d) During long periods of polishing it is recommended to use ear protection to prevent any hearing loss.
e) Check your tool cords from time to time and if necessary get them repaired or replaced from an authorized service center.
f) Before every use, make it a habit of checking the tool for any damages especially parts intended for safety. If necessary repair or replace the damaged parts before continuing the operation. Following this instruction will decrease fire, electrocution and injury hazards.
g) Keep this instruction manual accessible and make every person read this carefully who intends to use the tool.

SPECIFICATIONS

Model: HD-5
Polishing Disc Diameter: 5″ Max
Arbor Size: 5/8-11″
No Load Speed: 700-3000 RPM
Power: 800W
Weight (Net/Gross): 5.7 / 6.4 lbs.

DISC CAPACITY

This Hardin Wet Polisher can accommodate disc sizes up to 5 inches (127mm). Don't use discs larger than 5 inches with this tool.

OPERATION

- Don't exert force on the polisher. The weight of the polisher is enough to supply adequate amount of pressure to get the best results. Let the pad and polisher do their work. Exerting extra force will put strain on the motor, wear off the polishing pad quickly and reduce the polishing speed. Additional strain on the motor can cause overheating thus damaging the polisher.
- Never polish a specific area for long periods, otherwise 50 and 100 grit polishing pads will remove more material than you intend to, making the surface uneven.
- Don't apply extra force as it may overheat the motor causing damage to the tool.
- If the motor heats up, switch off the polisher and wait until motor comes to a complete halt. Then remove it from the work piece. Take your hand away from the venting duct, remove the polishing disc and switch it back on and run the polisher free without any load until the motor cools down.

POLISHING PADS SELECTION

Selecting the right polishing pad with correct grit for the task at hand plays an important role in achieving high quality finish. HARDIN Industrial Products has developed polishing pads for the HD-5 model bonded to achieve excellent results when polishing concrete or stone.

Generally, when using diamond polishing pads, coarse grit removes the most material and fine grits produce the best finish. The condition of the surface to be polished determines which grit will do the best job. If the surface is rough, start with a coarse grit and grind until the surface is uniform. Then use medium grit to remove scratches left by the coarser grit.

At last, use finer grits for finishing the surface. Always continue polishing with each grit until the surface is uniform..

PACKAGE INCLUDES

Your polisher packaging includes:

- HD-5 Grinder / Polisher
- Shaft Wrench
- Side Handle
- Owner's Manual

CALIFORNIA PROPOSITION 65

Some dust produced by power polishing, sawing, grinding, drilling, and other construction activities contains chemicals know (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead, from lead based paints
- Crystalline silica, from bricks and cement and other masonry products
- Arsenic and chromium, from chemically treated lumber

Your risk from these exposures varies depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specifically designed to filter out microscopic particles

SPEED ADJUSTMENT

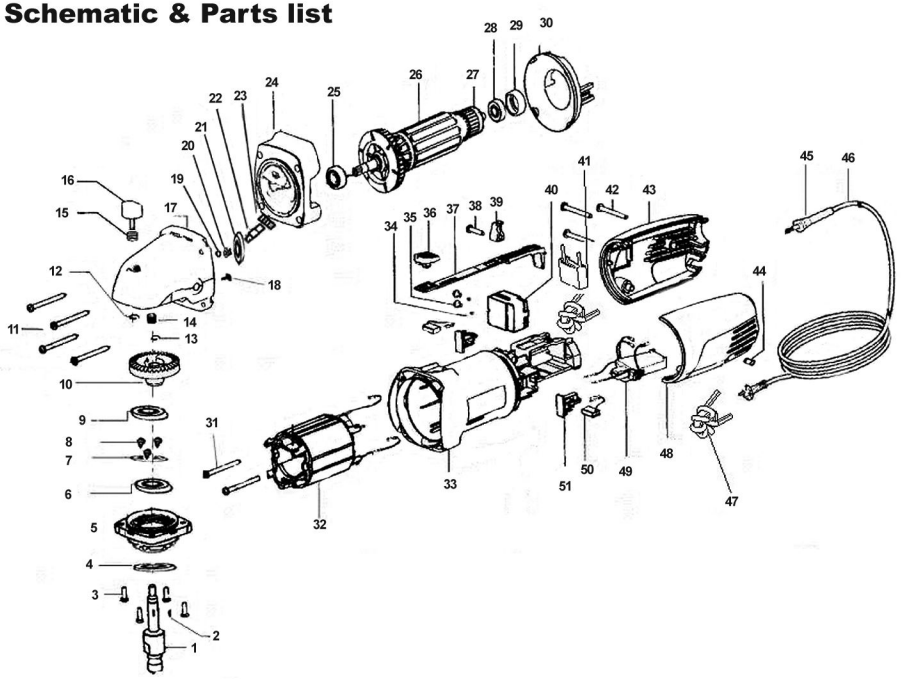
On the back end of the polisher, there is a dial for speed adjustment. Refer to the speed chart below for settings.

Speed Adjustment vs. RPM

Number Approximate	RPM
1	700
2	1100
3	1600
4	2100
5	2500
6	3000

Don't operate the tool at low speeds under heavy load for extended periods of time. This may cause the motor to overheat posing damage to your tool.

Schematic & Parts list



S.No.	Description	Qty.	S.No.	Description	Qty.
1	Output Shaft	1	26	Rotor	1
2	Woodruff Key	1	27	Rotor Axis	1
3	Front Cap Screw	4	28	Bearing	1
4	Dust Cap	1	29	Bearing Housing	1
5	Front Cover	1	30	Wind Cover	1
6	Bearing	2	31	Screw	1
7	Gland	1	32	Stator	1
8	Gland Screw	3	33	Housing	1
9	Flat Washer	1	34	Flat Washer	1
10	Gear (big)	1	35	Screw	1
11	Screw	1	36	Switch Lever Button	1
12	Clamp Spring For Self-Locking	1	37	Switch Lever	1
			38	Screw	1
13	Clamp Spring For Output Shaft	1	39	Cable Disc	1
			40	Switch	1
14	Roller Pin	1	41	Capacitor	1
15	Self-lock Spring	1	42	Screw	1
16	Self-Lock	1	43	Rear Cover	1
17	Gear Cap	1	44	Screw	2
18	Screw	2	45	Cable Sleeve	1
19	Clamp Spring	1	46	Cable	1
20	Gear (small)	1	47	Inductor	2
21	Bearing	1	48	Rear Cover	1
22	Gear Case Spindle	1	49	Speed Control Switch	1
23	Spur Gear (small)	1	50	Carbon Brush	1
24	Bearing Retainer	1	51	Copper Brush Holder	1
25	Bearing	1			