## **Instruction Manual**

Safety, Operation, Maintenance

# 600W Impact Drill

# Model:HP600-A

## i IMPORTANT

Please read the entire instruction manual carefully before operating this tool. Please pay particular attention to all safety rules and cautions.



Due to continuous improvement the product pictured may differ slightly in appearance.

Specifications are subject to change without notice.

### Contents

Ι.	Environment Protection	2
II.	Check the tool before use	2
III.	Specifications	2
IV.	Noise and vibration data	2
V.	Descriptions of symbols	2
VI.	Safety instructions - General safety rules	3-4
VII.	Additional safety rules for impact drills	4
VIII.	Functions of the tool	5
IX.	Changes to the tool	5
Χ.	Know your tool	5
XI.	Operating instructions	5-7
XII.	Maintenance	7

### **Environment Protection**



Recycle unwanted materials instead of disposing them as household waste. All tools, hoses, packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally friendly way.

## Specifications

Voltage	<mark>230-240V-50H</mark> z		
Power rating	600W		
No load speed	0-3000 min <sup>-1</sup>		
Chuck capacity	13mm		
Drill capacity			
steel	10mm		
concrete	13mm		
wood			

### **Description of Symbols**



Wear hearing protection. Wear eye protection. Wear breathing protection.



Double insulated for additional protection.

Do not attempt tasks outside the capacity of this tool.

### Check the tool before use

Due to modern mass production techniques, it is unlikely that your power tool is faulty or missing standard parts. If any parts are missing or you detect a fault of any kind, do not use the tool until parts have been replaced and/or the fault has been rectified. Failure to do so may result in serious personal injury.

### Caution:

Do not use the tool if the power cord is damaged. It must be replaced immediately by an authorised service professional.

### Noise and vibration data

Sound pressure level...90.81dB(A),K=3dB(A) Sound power level...101.81dB(A), K=3dB(A) Vibration level.....

> In metal 5.1m/s<sup>2</sup>, 6.9m/s<sup>2</sup> In concrete 11.3m/s<sup>2</sup>,15.7m/s<sup>2</sup>, K=1.5m/s<sup>2</sup>,

The sound intensity level for the operator may exceed 88dB(A) and sound protection measures are necessary.



Read the instruction manual

Caution

Page

### SAFETY INSTRUCTIONS

### **General Safety Rules**



**WARNING!** Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and /or serious injury. The term "power tool" in all warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### SAVE THESE INSTRUCTIONS

### 1) Work area

- a) Keep work area clean and well lit. Cluttered and dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep Children and bystanders away while operating a power tool. Distractions can cause you to loose control.

#### 2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of shock.
- b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering the power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When using a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

#### 3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. *A moment of inattention while operating power tools may result in serious personal injury.*
- b) Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, nonskid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries
- c) Avoid accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your fingers on the switch or plugging in power tools that have the switch in invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of a power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can get caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust-related hazards.

### 4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it is designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventative safety measures reduce the risk of starting power tools accidentally.

- d) Store idle power tools out of reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use. *Many accidents are caused by poorly maintained power tools.*
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and easier to control.
- g) Use the power tool, accessories and tool bits etc. in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- 5) Service
  - a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- 6) Specific safety rules
  - a) Wear ear protectors with impact drills. Exposure to noise can cause hearing loss.
  - b) Use auxiliary handles supplied with the tool. Loss of control can cause personal injury.

### Additional safety rules for impact drills

- Ensure the power source conforms to the requirements stated on the name plate of the tool.
- Do not use the tool in wet or damp conditions.
- Always keep the work area free of tripping hazards.
- When using the drill always ensure you are wearing protective safety equipment including safety glasses/goggles, ear muffs, dust mask and other protective clothing including gloves and apron.
- Ensure the auxiliary handle is fitted correctly before use.
- Always turn the drill off and remove the power plug from the socket before making any adjustments, changing accessories, servicing, maintenance or storing power tools.
- When installing or replacing drill bits and other accessories ensure the switch is turned off and that the power plug is disconnected from the mains power supply.
- Before connecting the power cord to the mains power supply ensure the switch is in the off position.
- Always check the workpiece before operation and remove any obstructions such as nails, staples, screws, string, rags, cloths and other debris.
- Check the position of power cables before commencing work ensuring they are well away from the work area.
- Always use clamps or a vice to hold down and secure the workpiece.
- Before drilling ensure there is a suitable gap below the workpiece to prevent the drill bit from touching any obstacles.
- Before drilling holes or screwing into walls ensure that you are not breaking into an electricity, gas or water supply line etc.
- Never change the direction of the chuck rotation while the tool is still running. Ensure the chuck has come to a complete stop before changing the rotation of the drill.
- Do not lay the tool down unless the tool is switched off and the chuck has come to a complete stop.
- Keep hands and other body parts well away from the work area whist the tool is in use.
- Keep hand well away from the under side of the work piece during use.
- Do not use your hands to remove any dust, chips or other waste while the tool is in use.
- Do not touch the drill bit after operation. The bit will be HOT and will burn!
- When an extension power cord is required ensure that it has the correct ampere rating for your drill and that it is in a safe electrical condition.
- Fully unwind the extension cable if the extension cable is supplied with a cable drum. This will avoid over heating.

### Functions of the tool

- Boring holes in wood, masonry, aluminium, plastics and mild steel.
- Light screwdriving.

The tool must be used for its prescribed purpose. Any use other than those mentioned within this instruction manual will be considered a misuse of the tool. The user and not the manufacturer will be considered shall be liable for any damage or injury resulting from such misuse.

### Changes to the tool

The manufacturer will not be liable for any changes made to this tool by the user or any damage or injury resulting from such changes.

**NOTE:** This product is covered by a two year replacement warranty for home use only. It is not designed for industrial or trade applications. The warranty will be considered void if used by trades people for professional use. Do not use the tool to perform applications for which it is not designed.

(Please see further warranty conditions on page 7).

### Know your power tool

Before using the tool, familiarise yourself with the operating features read the entire instruction manual paying particular attention to the safety rules and operating procedures.

#### Identification

- Keyless chuck
- 3. Selection lever
- Depth stop
- 4. Rotation lever
- 5. Handle
- 6. Power cord
- 7. Switch lock button
- 8. Trigger switch
- Speed dial
  Auxiliary handle

### Contents of carton

- Impact drill
- Auxiliary handle
- Depth stop
- Instruction manual

**NOTE:** When the tool is first switched on, it may release a slight oily smell. This is common and should pass after a short period of time.

### **Operating Instructions**

### Assembling the auxiliary handle and depth stop (fig. 2)

- 1. Always turn the drill off and remove the power plug from the socket before installing or changing bits.
- 2. Slide the handle opening over the chuck and rest it firmly on the collar of the drill.
- 3. Slide the depth stop through the small hole in the handle assembly, to the required position.
- 4. Tighten the nut to secure.

### Installing and removing bits (fig. 3)

1. Always turn the drill off and remove the power plug from the socket before installing or changing bits.

### Switching on/off (fig. 4)

- 1. Before connecting the plug to the mains power supply ensure the switch is in the off position.
- 2. Start the tool by squeezing the trigger switch.
- The pressure that is applied to the switch will determine the speed. The more pressure that is applied, the faster the speed.
- 4. Your operating speed can be predetermined by using the speed dial. For increased speeds, move the dial in an anti-clockwise direction. For decreased speeds, move the dial in a clockwise direction. If using the speed dial, the drill will automatically run at the predetermined speed when the trigger switch is fully depressed.
- Pressing the lock button while the trigger switch is engaged will allow the jigsaw to continue operating without constant pressure on the trigger switch. To turn off while in this mode, re-press the trigger switch.
- 6. For forward rotation, slide the rotation lever to the right. For reverse rotation, slide the rotation lever to the left.









### **Drilling Wood**

- 1. For drilling into wood, ensure the selection switch is set to the regular drilling position (to the right).
- 2. When drilling into soft wood, the drill should be operated at its maximum speed.
- 3. When drilling into hard wood, the drill should be operated at low speed.
- 4. Ensure you are using a twist drill bit.
- 5. Ensure the workpiece is clamped or anchored firmly before operation.
- 6. Apply pressure in a straight line with the drill bit while maintaining enough pressure to ensure the bit bits into the material.
- 7. When drilling into wood the bit may overheat unless pulled out regularly to clean the chips from the flutes.
- 8. When drilling into materials that may splinter use a backup block of wood.

### **Drilling Metals**

- 1. For drilling into metals, ensure the selection switch is set to the regular drilling position (to the right).
- 2. It is important to lubricate the tip of the bit from time to time with a cutting oil. The exception to this are iron, brass, aluminium, copper or cast iron.
- 3. Before commencing drilling make an indentation with a centre punch. This will prevent the bit from slipping.
- 4. Operate the drill at a slow speed.
- 5. When drilling large holes it is advisable to drill a smaller hole first.
- 6. Maintain firm pressure on the drill so the bit does not wonder which could cause injury.
- 7. Avoid the drill bit spinning freely in the hole after it is drilled. This will cause the bit to become dull.



### Caution:

- Ensure you have selected the required rotation of the chuck before commencing operation. (forward/reverse).
- Ensure the drill/screwdriver bit has been installed correctly. The bit must be placed firmly on the workpiece before the drill is switched on otherwise damage to the workpiece and/or drill/screwdriver bit may result.
- There is considerable force exerted on the tool and drill bit at the time of hole break through. Be sure to hold the tool firmly. Slow the speed of the drill and take care when the bit begins to break through.
- Pressing down excessively on the tool will not result in faster operation. Excessive pressure will only dull the bit and shorten tool life.
- Always turn the drill off and remove the power plug from the socket before installing or changing bits, making any adjustments or performing maintenance.

#### **Drilling Masonry**

- 1. For drilling into stone, bricks, marble and concrete, ensure the selection switch is set to the masonry drilling position (to the left).
- 2. Ensure that a masonry drill bit is being used.
- 3. Maintain firm pressure on the drill so the bit does not wonder which could cause injury Carbide tipped masonry bits should be used for all masonry drilling.
- 4. Operate the drill at a slow speed.

#### Screwdriving

- 1. Before driving in wood screws, a suitable hole should be made in the workpiece. This will prevent the screw and bit from wandering over the workpiece causing damage.
- 2. It is recommended that when screwdriving, the tool should be operated at low speed.
- 3. Insert the bit into the screw head and gently drive the screw into the hole.

**Note:** For continuous screwdriving, it is recommended that an electric screwdriver or cordless drill be used.

### Caution:

Always turn the sander off and remove the power plug from the socket before performing inspections or maintenance on this tool.

#### Carbon Brushes (fig. 5)

The carbon bushes are an integral component in the efficient running of the motor. These are consumable spare parts that must be replaced when they are worn to 4mm.

**NOTE:** Worn carbon brushes should only be installed by an authorised power tool repair agent.

**NOTE:** After replacing the carbon brushes there may be increased sparking. This is normal and should pass after a short period of time.

**NOTE:** After new carbon brushes have been installed, run the impact drill off load for several minutes to allow the new brushes to bed in before use.

#### Overload

The motor of this tool may be damaged if overloaded. Manual pressure on this tool **will not** result in faster operation. Forcing the tool will only result in reduced efficiency and could cause motor burnout. Substandard work, shorter tool life and possible injury.

<u>Avoiding Motor Damage:</u> If you are running the tool continuously at low speed, it's important to occasionally take the tool off load. Running the tool off load at full speed for approximately one minute creates a cooling air flow for the motor.

#### General maintenance & care

- 1. Regularly inspect the tool and ensure all fixing screws remain tight as they may vibrate loose over time.
- 2. Always clean the tool after each use.
- 3. Do not use the tool if the power cord is damaged. It must be replaced immediately by an authorised service professional.
- 4. Do not use worn or damaged drill/screwdriver bits. This may result in motor overload and reduced efficiency.
- 5. Exercise due care to ensure the motor does not become damaged by oil or water.
- 6. Regularly inspect the tool for damage which may be caused from normal use.
- 7. Ensure that all parts are connected correctly and do not use this product should parts be damaged or missing.
- 8. Consult an authorised power tool repair agent in the event of damage or failure.

