RIDGID

Hole Cutting Tools

HC-450/HC-300

Operator's Manual

⚠ WARNING!

Read this Operator's Manual carefully before using this tool. Failure to understand and follow the contents of this manual may result in electrical shock, fire and/or serious personal injury.

Safety Symbols

In this operator's manual and on the product, safety symbols and signal words are used to communicate important safety information. This section is provided to improve understanding of these signal words and symbols.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE NOTICE indicates information that relates to the protection of property.

This symbol means read the operator's manual carefully before using the equipment. The operator's manual contains important information on the safe and proper operation of the equipment.

This symbol means always wear safety glasses with side shields or goggles when handling or using this equipment to reduce the risk of eye injury.

This symbol indicates the risk of fingers, hands, clothes and other objects catching on or between gears or other rotating parts and causing crushing injuries.

This symbol indicates the risk of hands, fingers or other body parts being cut by the blade.

This symbol indicates the risk of electrical shock.

This symbol means do not wear gloves while operating this machine to reduce the risk of entanglement.

This symbol means wear a hard hat when working overhead to reduce the risk of head injury.

General Safety Rules*

⚠ WARNING

Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS!

Work Area

- **Keep work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- **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.
- **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

Electrical Safety

- **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
- **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord to carry the tool or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
- **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W".** These

* The text used in the General Safety Rule section of this manual is verbatim, as required, from the applicable UL/CSA 745 1st edition standard. This section contains general safety practices for many different types of power tools. Not every precaution applies to every tool, and some do not apply to this tool.

cords are rated for outdoor use and reduce the risk of electric shock.

Personal Safety

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a 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.
- **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- **Avoid accidental starting. Be sure switch is OFF before plugging in.** Carrying power tools with your finger on the switch or plugging in power tools that have the switch ON invites accidents.
- **Remove adjusting keys or wrenches before turning the tool ON.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- **Use safety equipment. Always wear eye protection.** Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Tool Use and Care

- **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it was designed.
- **Do not use the power tool if the switch does not turn it ON and OFF.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- **Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.

Service

- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
- **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electrical shock or injury.

Hole Cutter Safety Warnings

⚠ WARNING

This section contains important safety information that is specific to this tool.

Read these precautions carefully before using this Hole Cutting Tool to reduce the risk of electrical shock or other serious personal injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE!

Keep this manual with the machine for use by the operator.

- **Always wear appropriate eye protection.** Cutting tools can break or shatter. Cutting produces chips that can be thrown or fall into eyes.
- **Do not wear gloves or loose clothing when operating machine. Keep Sleeves and jackets buttoned. Do not reach across machine.** Clothing can be caught by the machine resulting in entanglement.
- **Keep fingers and hands away from rotating chuck and saw.** This reduces the risk of entanglement and cutting injuries.
- **Properly secure the Hole Cutting Tool to the pipe.** Improperly secured Hole Cutting Tools can fall and cause striking and crushing injuries.
- **Do not use for hot tapping.** When cutting into an

existing system, the pipe must be drained and depressurized prior to cutting. This reduces the risk of electrical shock and other serious injury.

- **Before using, test the Ground Fault Circuit Interrupter (GFCI) provided with the power cord to insure it is operating properly.** GFCI reduces the risk of electrical shock.
- **When working overhead, all personnel should wear hard hats and be clear of the area below the tool.** This reduces the risk of serious injury should objects fall.
- **Only use Hole Cutting Tools to cut holes in pipe as directed in this manual.** Do not use for other purposes or modify. Other uses or modifying this tool for other purposes may increase the risk of serious injury.
- **Read and understand the instructions and warnings for all equipment being used before operating the Hole Cutting Tool.** Failure to follow all instructions and warnings may result in property damage or serious personal injury.

⚠ WARNING Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:

- Lead from lead based paint
- Crystalline silica from bricks and cement and other masonry products, and
- 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.

The EC Declaration of Conformity (890-011-320.10) will accompany this manual as a separate booklet when required.

Model HC-450 Description, Specifications And Standard Equipment

Description

The RIDGID® Model HC-450 Hole Cutting Tool is designed to cut holes up to 4 3/4" into steel pipe. The multiple hole sizes allow the use of Mechanical T's®, Hookers®, Vic-O-Lets™, and other fittings for branching unpressurized pipe lines.

The HC-450 has a 5/8" capacity drill chuck to accommodate all sizes of hole saws and hole saw arbors. An integral motor and gear reduction optimizes performance of large diameter hole saws. The two feed handles allows the operator to use the Hole Cutting Tool from either the left or right side. A rotating leveling vial in the base allows repeated holes to line up. Only 13" high, the compact design, allows the HC-450 to be used in tight quarters or above installed pipe close to ceilings.

NOTE! Mechanical T's, Hookers, and Vic-O-Lets are registered trademarks of Victaulic Tool Company

Specifications

Cutting Capacity.....Up to 4 3/4" (120 mm)

Pipe Mounting
Capacity .....1 1/4" - 8" (30mm-200 mm)

Drill Chuck Capacity.....1/16" - 5/8" (2mm-16 mm)

Drill Chuck Speed.....110 RPM

Motor Horsepower.....1.2 HP

Current Draw Rating.....12 Amps @ 115V
6 Amps @ 230V
12 Amps @ 100V

Dimensions

Height.....12.62" (29 cm)

Length .....17" (43 cm)

Width .....17" (43 cm)

Weight .....42 lbs. (19 Kg)

Standard Equipment

- Hole Cutting Tool
- Chuck Key
- 5/8" Hole Saw Arbor w/Backing Plate and 1/4" Pilot Drill

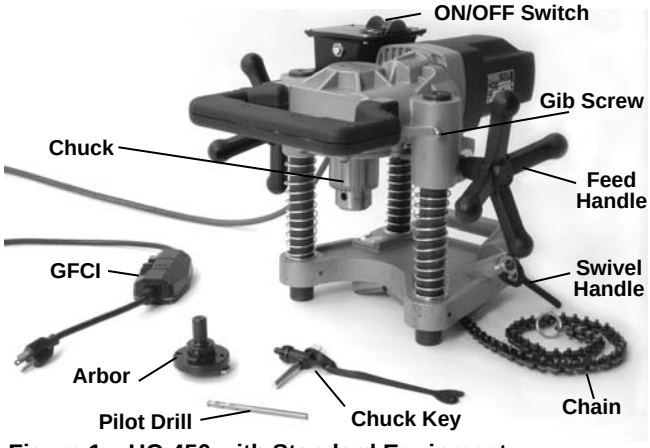

Figure 1 – HC-450 with Standard Equipment

Model HC-300 Description, Specifications And Standard Equipment

Description

The RIDGID® Model HC-300 Hole Cutting Tool is designed to cut holes up to 3" diameter into steel pipe. The multiple hole size allows the use of Mechanical T's®, Hookers®, Vic-O-Lets™, Weld-O-Let™ and other fittings for branching unpressurized pipelines.

The HC-300 features a 1/2" capacity chuck to accommodate all size of holes up to 3″ diameter and standard hole saw arbors up to 7/16" Hex (1/2" chuck size). An integral motor and gear reduction optimizes the performance and saw life in the capacity range. A single feed handle and **ON/OFF** switch allows for easy operation. The compact two-piece design allows the HC-300 to be used in tight quarters and difficult-to-reach locations.

NOTE! Mechanical T's, Hookers, and Vic-O-Lets are registered trademarks of Victaulic Tool Company.

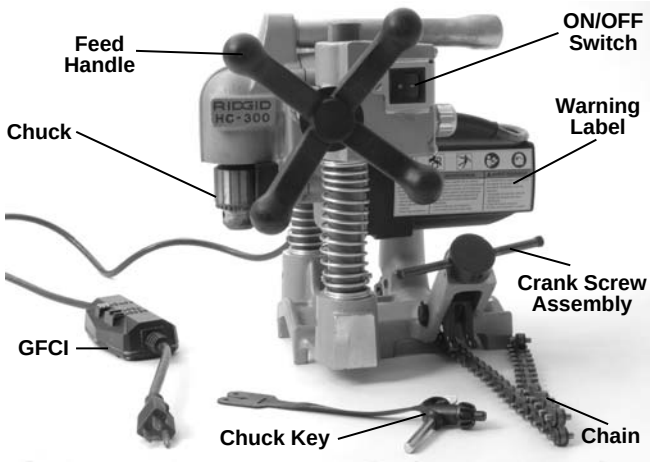

Figure 2 – Model HC-300 with Standard Equipment

Specifications

Cutting Capacity.....Up to 3" (76mm)

Pipe Mounting Capacity .....1 1/4" - 8" (30mm-200mm)

Drill Chuck Capacity.....1/16" - 1/2" (2mm-13mm)

Drill Chuck Speed.....360 RPM

Motor Horsepower.....1.2 HP

Current Draw Rating.....11 Amps @ 115V
5.5 Amps @ 230V
12 Amps @ 100V

Dimensions

Height.....12.8" (32.5 cm)

Length .....11.9" (30.2 cm)

Width .....13.2" (33.4 cm)

Total Weight .....31 lbs. (14 kg)
Base .....10 lbs. (4.5 kg)
Motor Assembly.....21 lbs. (9.5 kg)

Standard Equipment

- Hole Cutting Tool (Base and Motor Assembly)
- Chuck Key

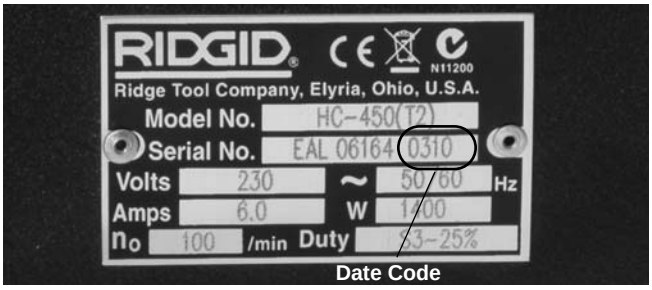

Figure 3 – Machine Serial Number

For both the HC-450 and HC-300 Hole Cutter Tool, the serial number is located on the underside of the motor. The last 4 digits indicates the month and year of the manufacture. (03 = month, 10 = year).

Icons

Power ON

Power OFF

NOTICE Selection of appropriate materials and installation, joining and forming methods is the responsibility of the system designer and/or installer. Selection of improper materials and methods could cause system failure.

Stainless steel and other corrosion resistant materials can be contaminated during installation, joining and forming. This contamination could cause corrosion and pre-

mature failure. Careful evaluation of materials and methods for the specific service conditions, including chemical and temperature, should be completed before any installation is attempted.

Pre-Operation Inspection

⚠ WARNING

Before each use, inspect your Hole Cutting Tool and correct any problems to reduce the risk of serious injury from electric shock and other causes and prevent tool damage.

1. Make sure that the Hole Cutting Tool is unplugged and the ON/OFF switch is in the OFF position.
2. Clean any oil, grease or dirt from the tool, including the handles and controls. This aids inspection and helps prevent the tool or control from slipping from your grip.
3. Inspect the Hole Cutting Tool for the following items:
   - Inspect the power cord, Ground Fault Circuit Interrupter (GFCI) and plug for damage or modification.
   - Proper assembly and completeness.
   - Broken, worn, missing, mis-aligned or binding parts. Make sure that the motor assembly moves smoothly and freely up and down the posts of the base assembly. Confirm that the chain and swivel handle move freely. On the HC-300, confirm that the plunger pin functions properly and retains the motor assembly to the base assembly *(Figure 7).*

Figure 4A – HC-450 Warning Label

Figure 4B – HC-300 Warning Labels

   - Presence and readability of the warning labels *(see Figures 4A and 4B).*
   - Any other condition which may prevent safe and normal operation.

   If any problems are found, do not use the hole cutting tool until the problems have been repaired.

4. Inspect the arbor, hole saw and drills to be used with the Hole Cutting Tool for wear, deformation, breakage or other issues. Do not use dull or damaged cutting tools. Dull or damaged cutting tools increase the amount of force required, produce poor quality cuts and increase the risk of injury.
5. With dry hands, plug the cord in. Test the GFCI in the electrical cord to insure that it is operating correctly. When the test button is pushed in, the reset button should pop out. Reactivate by pushing the reset button. If the GFCI is not functioning properly, unplug the cord and do not use the hole cutting tool until the GFCI has been repaired.
6. With the Hole Cutting Tool on a stable surface check the Hole Cutting Tool for proper operation. Keep clear of the chuck. Move the ON/OFF switch to the ON position. The motor should start and the chuck turn counter clockwise viewed from the chuck end. Inspect the tool for misalignment, binding, odd noises or other unusual conditions. Move the ON/OFF switch to the OFF position. If any issues are found, do not use the tool until it has been repaired.
7. After the inspection is complete, with dry hands unplug the tool.

Machine And Work Area Set-Up

⚠ WARNING

Set up the Hole Cutting Tool and work area according to these procedures to reduce the risk of injury from electrical shock, entanglement, crushing and other causes and prevent tool damage.

Properly secure the Hole Cutting Tool to the pipe. Improperly secured Hole Cutting Tools can slip and fall and cause striking and crushing injuries.

Do not use for hot tapping. When cutting into an existing system, the pipe must be drained and depressurized prior to cutting. This reduces the risk of electrical shock and other serious injuries.

When working overhead, all personnel should wear hard hats and be clear of the area below. This reduces the risk of serious injury should equipment or other objects fall.

1. Check work area for:
   - Adequate lighting.
   - Flammable liquids, vapors or dust that may ignite. If present, do not work in area until sources have been identified and corrected. The hole cutter is not explosion proof and can cause sparks.
   - Clear, level, stable, dry location for all of the equipment and operator.
   - Properly grounded electrical outlet of the correct voltage. A three prong or GFCI outlet may not be properly grounded. If in doubt, have outlet inspected by a licensed electrician.
   - Clear path to electrical outlet that does not contain any potential sources of damage for the power cord.
2. Inspect the work to be done. Determine the pipe type and size, and clearance around the pipe. Determine the size and location of the hole to be cut. Clearly mark the cut location. If installing a fitting, follow the fitting manufacturer's instructions. Determine the correct equipment for the job. *See the Description and Specification sections* for tool information.

   Make sure that the pipe to be cut is well supported and stable. The pipe must be able to handle the weight of the Hole Cutting Tool and the forces applied during cutting without moving.

   If working on an existing system, make sure that the system has been depressurized and drained. The Hole Cutting Tools are not designed for hot tapping purposes. Cutting into pressurized or systems with fluids in them can cause spills, electrical shock and other serious injury. Know the contents of the pipe and any specific hazards associated with the contents.
3. Confirm that the equipment to be used has been properly inspected,
4. Select an appropriate hole saw for the work to be performed. Make sure that the hole saw is properly assembled per its instructions and is in good working order. The use of a pilot drill is recommended. The pilot drill should extend no more than 3/8" (10mm) past the end of the hole saw, and should be securely tightened.
5. With the Hole Cutting Tool on a stable surface, install the hole saw into the chuck. Always make sure that the ON/OFF switch is in the OFF position and the Hole Cutting Tool is unplugged before installing or changing the hole saw or drill.
   - Open the chuck wide enough for the shank of the hole saw. If needed, the chuck key can be used to open the chuck. Make sure that the shank and the chuck jaws are clean.
   - Fully insert the shank into the chuck. Make sure that the hole saw is centered in the chuck and firmly tighten the chuck by hand.
   - Use the chuck key in all three chuck holes to securely tighten the chuck onto the shank. Make sure to remove the chuck key from the chuck before turning the tool ON.

Mounting The Hole Cutting Tool On The Pipe

Hole Cutting Tools weigh up to approximately 42 pounds. Use good lifting technique when placing on the pipe, do not overreach, and keep good balance and footing at all times. Depending on the circumstances, two people may be necessary to mount the Hole Cutting Tool onto the pipe.

Hole Cutting Tools can be used at any angle or orientation. If cutting a hole on the side or bottom of a pipe, it may be easier to place the Hole Cutting Tool on the top of the pipe to fasten the chain around the pipe and then move the Hole Cutting Tool into final position.

HC-450

1. Make sure the chain is hanging freely and the swivel handle is fully loosened.
2. Carefully lift the HC-450 Hole Cutting Tool and place with the V-shaped guides squarely on the pipe near the

location of the cut. Make sure the chain is not between the pipe and tool base.

3. Always keep at least one hand on the Hole Cutting Tool to stabilize and guide it. Grasp the end of the chain and pull it snugly around the pipe. Hook the closest chain pin on the wear plate and firmly tighten the swivel handle to hold the Hole Cutting Tool to the pipe. *(See Figure 5)*

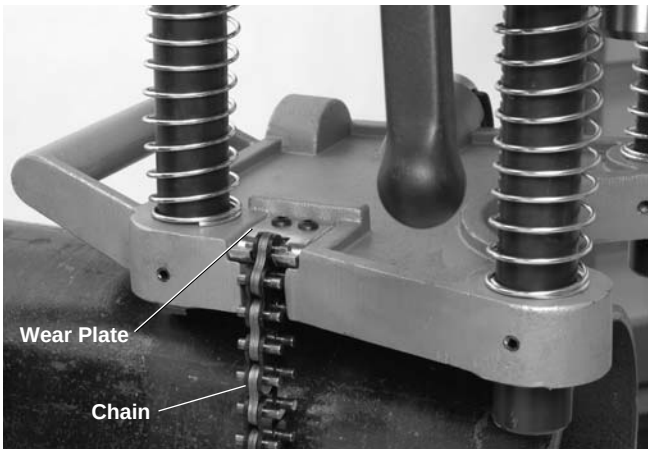

Figure 5 – Hooking the HC-450 Chain

4. The base of the HC-450 Hole Cutting Tool includes a level vial that can be used to align a series of holes. When the Hole Cutting Tool is placed at the desired angle, the vial can be rotated to the level position, and subsequent holes can be made at the same angle by leveling the Hole Cutting Tool with the vial. *(See Figure 6)*

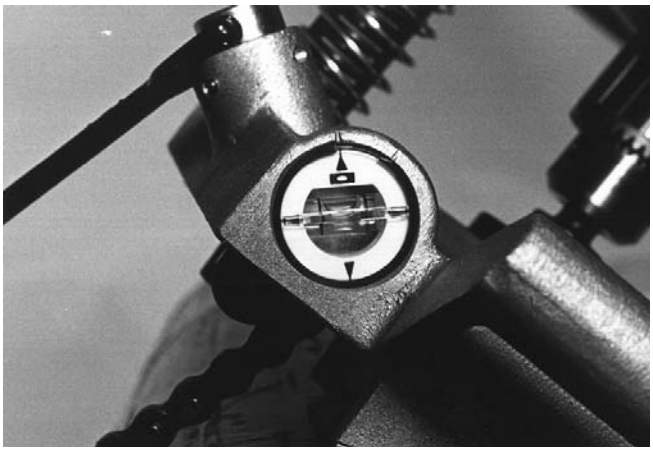

Figure 6 – HC-450 Hole Cutting Tool Level Vial

5. With one hand on the Hole Cutting Tool to stabilize and guide it, slightly loosen the swivel handle to allow final positioning of the tool. Align the pilot drill with the desired cut location, and firmly tighten the swivel handle. Do not remove your hands from the Hole Cutting Tool until you have confirmed that it is securely attached to the pipe. The Hole Cutting Tool must be securely and squarely attached to the pipe to help reduce the risk of hole saw jamming.

HC-300

The HC-300 can be mounted on the pipe either as a complete unit (similar to the HC-450) or by separating the base assembly from the tool, mounting the base to the pipe, and then installing the motor assembly to the base assembly.

1. With the HC-300 Hole Cutting Tool on a stable, secure surface, pull the plunger on the back of the left post *(Figure 7)* and lift the motor assembly off of the base assembly.

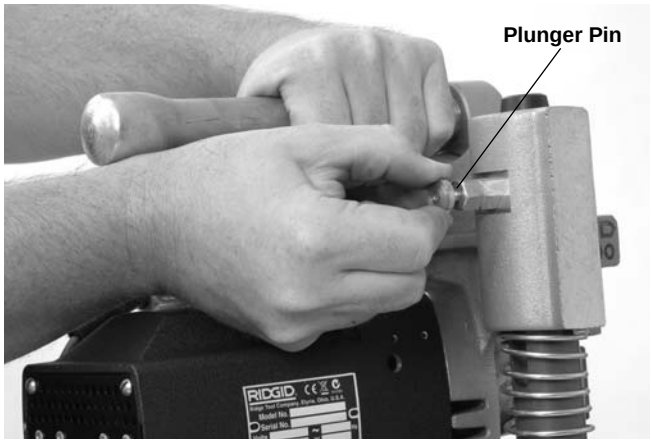

Figure 7 – Separating the Base and Motor Assemblies

2. Make sure the chain is hanging freely and the swivel handle is fully loosened on the base assembly.

3. Place the base assembly with the V-shaped guides squarely on the pipe near the location of the cut. Make sure the chain is not between the pipe and tool base.

4. Always keep at least one hand on the base assembly to stabilize and guide it. Grasp the end of the chain and pull it snugly around the pipe. As you pull on the chain, a spring is compressed at the attachment end of the chain. Hook the closest chain pin on the chain hook – the spring tension will help keep the chain engaged with the chain hook. Firmly tighten the crank screw assembly to hold the base assembly to the pipe. *(See Figure 8.)*

Figure 8 – Hooking the Chain

5. Carefully lift the motor assembly and align the post openings in the motor assembly with the posts of the base assembly. Press the motor assembly on until the plunger engages the post to retain the motor assembly to the base. Confirm that the motor assembly is securely attached to the base. *See Figure 9.*
6. The base of the HC-300 includes several machined flats for use with levels for hole alignment. *See Figure 10.*

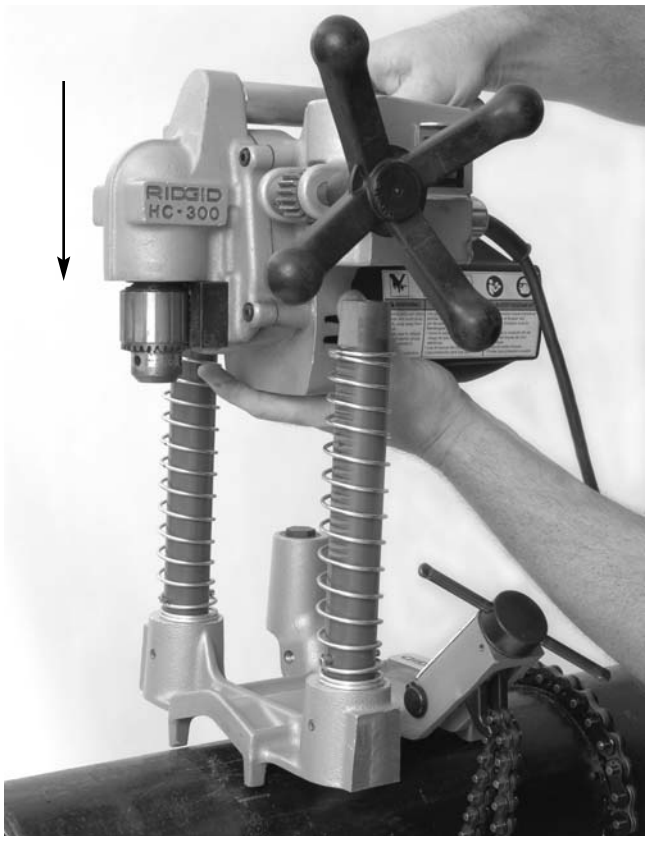

Figure 9 – Attaching the HC-300 Motor Assembly to the Base Assembly

Figure 10 – HC-300 Leveling

7. With one hand on the Hole Cutting Tool to stabilize and guide it, slightly loosen the crank screw assembly to allow final positioning of the tool. Align the pilot drill with the desired cut location, and firmly tighten the crank screw assembly. Do not remove your hands from the Hole Cutting Tool until you have confirmed that it is securely attached to the pipe. The Hole Cutting Tool must be securely and squarely attached to the pipe to help reduce the risk of hole saw jamming.

To mount the HC-300 on the pipe as a complete unit, follow the steps indicated in the HC-450 section, using the information in the HC-300 section on chain hooking and alignment.

Powering the Hole Cutting Tool

1. Confirm that the ON/OFF switch is in the OFF position.
2. Makes sure that the power cord is routed out the back of the tool away from the chuck and work area. Run the cord along the clear path to the outlet, and with dry hand plug in. Keep all connections dry and off the ground. If the power cord is not long enough, use an extension cord that:
   - Is in good condition
   - Has a three prong plug similar to that on the tool.
   - Is rated for outdoor use and contains a W or W-A in the cord designation (i.e. SOW), or complies with H05VV-F, H05RN-F types or IEC type design (60227 IEC 53, 60245 IEC 57).
   - Has sufficient wire size (16 AWG (1.5mm^2) for 50' (15.2m) or less, 14 AWG (2.5mm^2) for 50' – 100' (15.2m – 30.5m) long). Undersized wires can overheat, melting the insulation or causing a fire or other damage.

When using an extension cord, the GFCI on the Hole Cutting Tool does not protect the extension cord. If the outlet is not GFCI protected, it is advisable to use a plug in type GFCI between the outlet and the extension cord to reduce the risk of shock if there is a fault in the extension cord.

Operating Instructions

⚠ WARNING

Always wear appropriate eye protection. Cutting tools can break or shatter. Cutting produces chips that can be thrown or fall into eyes.

Do not use for hot tapping. When cutting into an existing system, the pipe must be drained and depressurized prior to cutting. This reduces the risk of electrical shock and other serious injury.

Do not wear gloves or loose clothing when operating machine. Keep Sleeves and jackets buttoned. Do not reach across machine. Clothing can be caught by the machine resulting in entanglement.

Keep fingers and hands away from rotating chuck and saw. This reduces the risk of entanglement and cutting injuries.

Follow operating instructions to reduce the risk of injury from electrical shock entanglement, crushing and other causes and prevent Hole Cutter damage.

1. Confirm that the Hole Cutting Tool and work area are properly set up and that the work area is free of bystanders and other distractions.
2. Assume a proper operating position that will allow:
   - Control of the Hole Cutting Tool, including the ON/-OFF switch and the feed handle. On the HC-300 you must be on the same side as the switch and the feed handle. Do not turn the tool ON yet
   - Good balance. Be sure that you do not have to over reach.
3. Move the ON/OFF switch to the ON position. Observe the rotation of the hole saw and pilot drill, making sure it is running straight and true. If they wobble, or any other issues are noted, move the switch to OFF and unplug tool, fix any issues prior to using. Keep fingers, hands and clothes away from the turning chuck to help reduce the risk of entanglement.
4. Place both hands on the hand wheel and advance the pilot drill into contact with the pipe. Apply firm pressure, and start drilling the pilot hole. Do not force the pilot drill/hole saw. This can overload the hole saw and the tool motor and cause premature failure.

Figure 11 – Operating the Hole Cutting Tool

Once the hole saw is in contact with the pipe, continue to apply firm pressure. Depending on the size and wall thickness of the pipe and the size of the hole being cut, the hole saw may need to be retracted slightly at times for chip removal.

If needed, the Hole Cutting Tool can be shut off and a small amount of appropriate cutting lubricant applied to the work piece. Do not apply lubricant while the tool is running, this increases the risk of entanglement. Take appropriate steps to prevent the lubricant from dripping or being thrown during use.

As the hole saw moves through the pipe and as the cut is completed, there will be an interrupted cut at times. Decrease pressure as this occurs to help prevent jamming of the hole saw.

5. Once the hole is complete, retract the hole saw from the pipe and turn the ON/OFF switch OFF.
6. Reverse the mounting procedure to remove the Hole Cutting Tool from the pipe. Make sure you have secure grip on the Hole Cutting Tool prior to loosening the chain or pulling the plunger on the HC-300.
7. If the pipe slug needs to be removed from the hole saw, always make sure that the ON/OFF switch is in the OFF position and the Hole Cutting Tool is unplugged before removing. Remove the slug with care, the slug may be hot and edges can be sharp.

Maintenance Instructions

WARNING

Make sure that the ON/OFF switch is in the OFF position and the tool is unplugged before performing any maintenance or making any adjustments.

Maintain tool according to these procedures to reduce the risk of injury from electrical shock, entanglement and other causes.

Cleaning

After each use, wipe any chips or oil off with a soft, clean, damp cloth, especially areas of relative motion such as the posts. Clean any dust and debris from the motor vents.

Lubrication

The Hole Cutting Tools gearboxes are designed as sealed systems, and should not require any additional grease unless significant leakage has occurred. In those cases, the tools should be returned to a service center.

Do not lubricate the bearings that ride on the posts. The bearings are not designed to be used with lubricants, and lubricants will hold dirt and debris that could damage the bearings.

As needed, the chain and screw assemblies can be lubricated with a light lubricating oil. Wipe any excess oil from exposed surfaces.

Changing Brushes

Check motor brushes every six months and replace when worn to less than 1/2".

1. Remove four screws holding motor cover, remove cover.
2. Using a pair of pliers, pull the motor brushes straight out. Detach the connector. *(See Figure 12)*

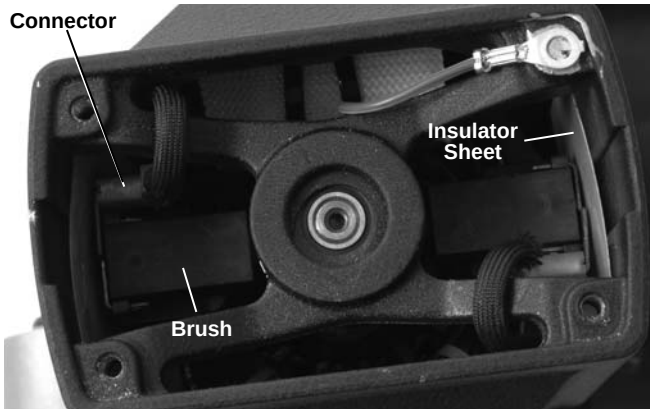

Figure 12 – Brush Placement - Motor Cover Removed

3. Inspect the commutator for wear. If excessively worn, have tool serviced.
4. Depress the brush into the holder and insert into the motor housing. Inspect to make sure insulator sheets are properly positioned between brush holder and housing. Attach the connector and replace the motor cover.

Gib Screw Adjustment

Gib screws are provided on the HC-450 to allow adjustment of the drag between the base and motor assemblies. Tighten or loosen the Gib screws to adjust as desired. *(See Figure 13)*

Figure 13 – Adjusting Gib Screws

Accessories

⚠ WARNING

To reduce the risk of serious injury, only use accessories specifically designed and recommended for use with the RIDGID Hole Cutting Tools, such as those listed below. Other Accessories suitable for use with other tools may be hazardous when used with the RIDGID Hole Cutting Tools.

Model HC-300

Catalog No.	Description
16671	R2S Solid Shank Arbor
84427	HC-450/HC-300 Carrying Case
77017	Chuck Key

Model HC-450

Catalog No.	Description
84427	HC-450 Carry Case
59502	R4 5⁄8" Arbor only for Hole Saws
59132	Chuck Key

See RIDGID catalog for listing of Hole Saws.

Machine Storage

⚠ WARNING The Hole Cutting Tool must be kept indoors or well covered in rainy weather. Store the machine in a locked area that is out of reach of children and people unfamiliar with hole cutting tool. This machine can cause serious injury in the hands of untrained users.

Service and Repair

⚠ WARNING

Improper service or repair can make machine unsafe to operate.

The “Maintenance Instructions” will take care of most of the service needs of this machine. Any problems not addressed by this section should only be handled by an authorized RIDGID service technician.

Tool should be taken to a RIDGID Independent Authorized Service Center or returned to the factory.

Disposal

Parts of the Hole Cutting Tool contain valuable materials and can be recycled. There are companies that specialize in recycling that may be found locally. Dispose of the components in compliance with all applicable regulations. Contact your local waste management authority for more information.

For EC Countries: Do not dispose of electrical equipment with household waste!

According to the European Guideline 2002/-96/EC for Waste Electrical and Electronic Equipment and its implementation into national legislation, electrical equipment that is no longer usable must be collected separately and disposed of in an environmentally correct manner.

What is covered
RIDGID® tools are warranted to be free of defects in workmanship and material.

How long coverage lasts
This warranty lasts for the lifetime of the RIDGID® tool. Warranty coverage ends when the product becomes unusable for reasons other than defects in workmanship or material.

How you can get service
To obtain the benefit of this warranty, deliver via prepaid transportation the complete product to RIDGE TOOL COMPANY, Elyria, Ohio, or any authorized RIDGID® INDEPENDENT SERVICE CENTER. Pipe wrenches and other hand tools should be returned to the place of purchase.

What we will do to correct problems
Warranted products will be repaired or replaced, at RIDGE TOOL'S option, and returned at no charge; or, if after three attempts to repair or replace during the warranty period the product is still defective, you can elect to receive a full refund of your purchase price.

What is not covered
Failures due to misuse, abuse or normal wear and tear are not covered by this warranty. RIDGE TOOL shall not be responsible for any incidental or consequential damages.

How local law relates to the warranty
Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights, and you may also have other rights, which vary, from state to state, province to province, or country to country.

No other express warranty applies
This FULL LIFETIME WARRANTY is the sole and exclusive warranty for RIDGID® products. No employee, agent, dealer, or other person is authorized to alter this warranty or make any other warranty on behalf of the RIDGE TOOL COMPANY.

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