

**DO NOT THROW AWAY**

**IMPORTANT MANUAL**

# **MODEL 1M5C**

## **MECHANICAL ONE-MAN EARTH DRILL**



### **Operator's Manual**



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<b>⚠ WARNING</b>	
	Read and follow the operators manual and all Warnings and safety instructions before operating this machine. Failure to do so can result in serious injury.

# WARNINGS AND SAFETY INSTRUCTIONS


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 This symbol means **DANGER, WARNING** or **CAUTION**. Personal injury and/or property damage may occur unless instructions are followed carefully.

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## **WARNING ~ THIS POWER TOOL CAN BE DANGEROUS!**

This tool can cause serious injury to the operator and bystanders. The warning and safety instructions in this manual must be followed to provide reasonable safety and efficiency in using and storing this earth drill. The operator is responsible for following the warnings and instructions in this manual and the earth drill. **Read the entire Operator's Manual before using this earth drill! Restrict the use of this earth drill to persons who read, understand, and follow the warnings and instructions in this manual and on the earth drill. If you have not read and understand the warnings and instructions in this manual and on the earth drill, you are not qualified to operate this earth drill!**

 This product contains and/or emits chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. This statement is made in compliance to California Proposition 65.

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## **DANGER**

- Keep body parts, foreign objects and clothing clear of rotating auger.
- Always use part # 1300 auger attachment pin for attaching auger bit to earth drill.
- Coming into contact with buried utilities while digging can cause severe injuries or DEATH.
- Contact appropriate utility representatives to determine if/where electrical cables, gas lines, water lines, etc. are buried BEFORE operation.



**Know what's below.  
Call before you dig.**



# WARNINGS AND SAFETY INSTRUCTIONS cont'd...

## OPERATOR SAFETY

1. Always wear the proper clothing and protective gear for the job. Eye and ear protection, hard hat, boots, gloves and dust masks are some of the items that may be required.
2. Keep hair, fingers, and all other body parts away from openings and moving parts. Always wear, long pants, boots, and gloves. Do not wear loose clothing, jewelry, short pants, sandals or go barefoot. Secure hair so it is above shoulder length.
3. Do not operate this earth drill indoors. For outdoor use only.
4. Do not operate this tool when you are tired, ill, or under the influence of alcohol, drugs, or medication.
5. Always assume the digging location contains underground utilities or obstructions. Contact appropriate utility company to determine if/where electrical cables, gas lines, water lines, etc. are buried BEFORE operation.
6. Always use extreme caution while operating this tool. Be sure of your footing and physical capabilities.

## TOOL SAFETY

1. Inspect the entire earth drill before each use. Replace damaged or worn parts.
2. Check for fuel leaks and make sure all fasteners are in place and securely fastened. Repair or replace as needed.
3. Replace auger blades that are severely worn, missing or damaged in any way before using this tool.
4. Use only the # 1300 auger attachment pin and make sure that it is properly attached.
5. Be sure the auger bit stops turning when you release the throttle.
6. Use only accessories or parts as recommended by Ground Hog, Inc.

## FUEL SAFETY

1. Refuel outdoors only and where there are no sparks and flames.
2. Store fuel in a container approved for gasoline.
3. Do not smoke or allow smoking near fuel or the earth drill or while using the earth drill.
4. Clean up all fuel spills before starting engine.
5. Move at least 10 feet away from fueling site before starting engine.
6. Stop engine before removing fuel cap.
7. Store the earth drill and fuel in an area where fuel vapors cannot reach sources of combustion like water heaters, electric motors, switches, furnaces, etc.

## DIGGING SAFETY

1. Always assume the digging location contains buried underground utilities or obstructions. Call 811 to determine if/where electrical cables, gas lines, water lines, etc. are buried BEFORE operation.
2. Always be sure that the area you are going to drill in is clear of potential hazards, such as pipes, rocks, wire, boards or any other materials that could possibly entangle itself around the auger bit or cause unstable footing before using the earth drill.
3. Keep others including children, animals, bystanders and helpers outside a 15 foot hazard zone from the earth drill.
4. Hold the earth drill handle bar firmly with both hands.
5. Keep firm footing and balance. Do not over-reach.
6. Keep all parts of your body and clothing away from the auger bit and other moving parts.
7. Inspect the digging site. Soil conditions, job specifications and operator experience may dictate that a different earth drill or method be used to do the job.
8. Do not leave holes open or unmarked.

## MAINTENANCE SAFETY

1. Maintain this earth drill according to recommended procedures included in this manual.
2. Disconnect the spark plug wire before performing maintenance. See engine manual.
3. Stop engine before removing fuel cap.
4. Use only genuine replacement parts as recommended by Ground Hog or the engine manufacturer.

## TRANSPORTATION AND STORING SAFETY

1. Always shut off the fuel valve and engine before transporting or storing.
2. Always allow the engine to cool before transporting or storing.
3. Store earth drill and fuel in an area where fuel vapors cannot reach sources of combustion like, water heaters, electric motors, switches, furnaces, etc.
4. Always secure this earth drill with tie downs or similar restraints when transporting.
5. The earth drill shall be stored in a manner that prevents it from falling, rolling or tipping over.



# INTRODUCTION

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It is your responsibility as the operator of this piece of equipment to know what specific requirements, precautions and work hazards exist. You must read, understand and follow all of the information contained in this operator's manual and inform any person who might be assisting you.

The 1M5C one-man earth drill is a unique tool. By separating the engine from the auger with the use of a drive shaft, the digging torque or "kick back" normally associated with hand operated earth drills is greatly reduced, making for a more comfortable tool to use. However, it is a tool that can cause injury to the operator or bystanders if it is not properly maintained or if it is misused. You must be sure that you, as the operator, understand the use of the tool and the risks involved.

**NOTE:** This machine is designed to drill holes in soil. It is not intended for any other purpose.

The rotation of the auger or drill bit on any type of earth drill will cause a counter rotation of the handle bars while drilling a hole. The force exerted on the operator will vary according to the type of soil, the diameter of the auger and the condition of the machine.

In the event that the auger should encounter an object that stops the rotation suddenly, the digging force could be transmitted directly to the operator. Even though the force is absorbed by the wheel assembly, there is the possibility that the handle bars could be jerked from the operator's hands. For this reason, the operator must always have secure footing and control of the machine. The operator must also be both mentally and physically prepared to react to this force.

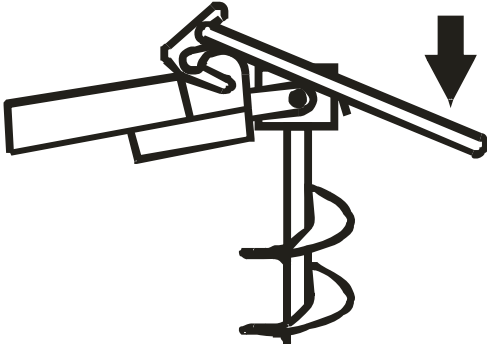
Because the 1M5C is a hand operated, portable type machine, it is limited in what it is capable of doing. The job site, soil conditions, job specifications and operator experience may dictate that a different tool or method be used to do the job.

**NOTE:** It is not recommended that engines of higher horsepower be installed on this machine. Consult the factory before making any modifications.



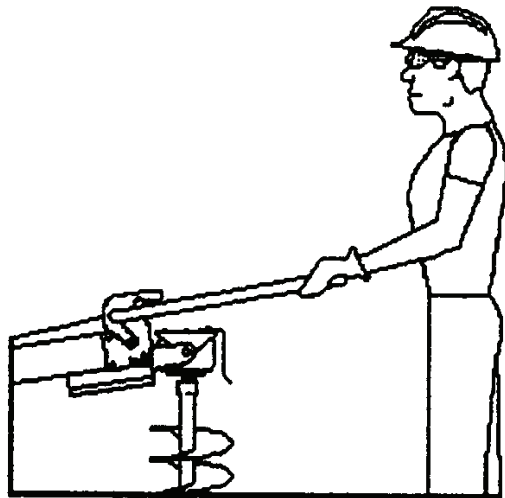
# HANDLE BAR POSITIONS

There are three different handle bar positions that the operator of the 1M5C earth drill can use. Each position has a specific purpose and each one plays a part in promoting convenience and versatility to the operator while at the job site.



**POSITION 1:** This is the starting position. The 1M5C should not be started unless the handle bars are in this position. This position locks the boring head and auger which helps stabilize the earth drill for starting.

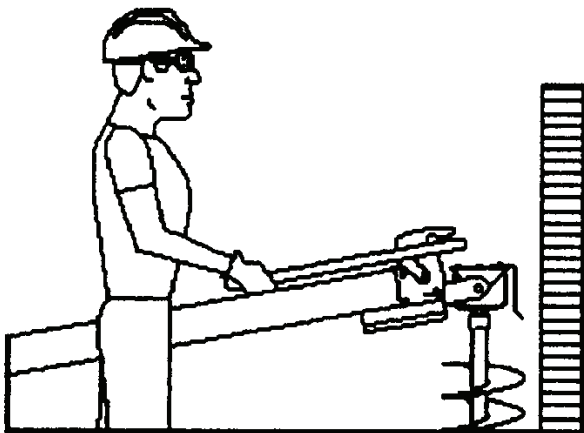
This position is also used for maneuvering the machine with the auger attached.



**POSITION 2:** This is the digging position. Most digging operations will be done in this position, allowing the operator to take advantage of the 1M5C's design.

## **WARNING**

Do not start the engine with handle bar in this position.



**POSITION 3:** This position is to be used for up close digging where a hole is required next to an object like a fence or a building.

This position is also used for storing when the auger is detached and transporting to and from a job site.

## **WARNING**

Do not start the engine with handle bar in this position.

Be aware that walls may have underground footings or foundations.



# OPERATING INSTRUCTIONS

## **DANGER**

Determine that the earth drill is in its original, factory configuration and has not been modified or damaged and is not missing parts in any way. If there are any questions about possible modifications made to the earth drill, do not use until the modifications have been corrected using only genuine replacement parts as recommended by Ground Hog or the engine manufacturer.

### **STOPPING THE 1M5C**

There are two stop switches on the earth drill; one on the handle bar and one on the engine. Refer to the engine manual for the switch location on your particular earth drill. The operator can turn the earth drill off at any time by switching either stop switch to the "OFF" position.

## **DANGER**

Keep bystanders clear when starting and using the earth drill.

Never connect or disconnect the auger while the engine is running.

**Do not** operate this earth drill indoors. For outdoor use only.

### **STARTING THE 1M5C**

1. Always have handle bars in **POSITON 1** when starting.
2. Move all stop switches to the "ON" position.
3. Start the engine following the procedures outlined in the engine manual supplied with the earth drill.
4. Before attaching the auger, always start the earthdrill at the job site and allow it to warm up. While the machine is running, check that all controls are working properly before using.

### **STARTING WITH AUGER ATTACHED**

1. Always have handle bars in **POSITON 1** when starting.
2. After the engine has been allowed to warm up, and everything is operating as it should, shut the motor off and attach the auger using the auger attachment pin (part #1300).

3. Following the procedures outlined in the engine manual supplied with the machine, start the engine. If the engine does not start after 3 pulls of the starter rope, disconnect the auger from the machine and determine the cause. When the machine is in operating condition again, follow the procedures listed above before proceeding to the next step.

## **WARNING**

Hitting a buried object, such as a rock, could cause a sudden side thrust against the operator. Injury could occur if the operator is not prepared to deal with this condition.

### **DRILLING**

1. Rotate the handle bars to digging **POSITON 2**.
  2. Slowly depress the throttle lever. Use caution here as the auger will start to turn and dig at this point.
- NOTE:** The more that you depress the throttle lever, the faster the auger will turn.
3. Allow the auger to dig at its own speed, keeping the auger straight in the hole by moving the machine back and forth as needed.
  4. Increase or decrease the auger speed until you find a digging speed that you are comfortable with.
  5. Do not attempt to drill the hole in one pass, you could bury the auger. Drill to a depth of approximately one foot and lift the auger to spin the dirt off. Be careful not to lift the auger completely out of the hole. Repeat this procedure until you have reached the desired depth.
  6. Release the throttle lever and lift the rest of the dirt out for a clean hole.
  7. If drilling another hole move the handle bars to **POSITON 1**. Move the earth drill to the location of your next hole and repeat steps 1 through 6.
  8. For up close digging, rotate the handle bars to the up close digging **POSITON 3** and follow the instructions above.

## **WARNING**

Do not move the earth drill if auger is rotating. Be sure the engine is off or at an idle before moving the earth drill.



# OPERATING INSTRUCTIONS cont'd...

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## **WARNING**

Never connect or disconnect the auger or auger extensions while the engine is running.

### ***DRILLING WITH EXTENSIONS***

It is not recommended to dig with extensions longer than three feet long.

1. Following the directions listed under "DRILLING", dig to the full depth of the auger without using an extension.
2. Stop the engine. Remove the auger from the earth drill and connect the extension shaft to the auger using the auger attachment pins (part #1300).
3. Put the auger and extension into the hole and reconnect the earth drill.

**NOTE:** Do not add extension without first cleaning out the hole. Failure to do so may result in a buried auger.

4. Following the instructions outlined in "DRILLING", drill to the desired depth, adding extensions as needed.

## **WARNING**

The earth drill shall be stored in a manner that prevents it from falling, rolling or tipping over.

### ***WHEN NOT IN USE***

- Store the earth drill and fuel in an area where fuel vapors cannot reach sources of combustion like water heaters, electric motors, switches, furnaces, etc.
  - Always shut off the fuel valve and engine before storing or transporting.
  - Always shut off the stop switches when not in use.
  - Keep children, bystanders and animals clear of earth drill at all times.
  - Secure the earth drill in a manner that will not allow it fall, tip over or roll.
  - Always place the earth drill on level ground and use wheel chocks to prevent the earth drill from rolling when not in use.
  - Always remove the auger bit from the earth drill when not in use.
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