

**DO NOT THROW AWAY**

**IMPORTANT MANUAL**

# **MODEL *HD99***

## **HYDRAULIC ONE-MAN EARTH DRILL**



## **Operator's Manual**



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# 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.

## **WARNING**

- Comply with local state and highway regulations when towing.
- Check that ball is completely inserted into coupler socket before towing.
- Check that the underjaw is securely closed around bottom of ball.
- Always secure this earth drill with tie downs or similar restraints when transporting in a truck or trailer.
- Avoid excessive speeds while towing.



# 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 tool when you are tired, ill, or under the influence of alcohol, drugs, or medication.
4. 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.
5. 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,

## 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 overreach.
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. Properly attach and inspect the towbar to the earth drill before towing.
6. Always check that the ball is completely inserted into the coupler socket and that the underjaw is securely closed around the bottom of the ball.
7. Always check that the coupler handle is properly locked before towing.



# 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 HD99 one-man earth drill is a unique tool. By separating the engine from the auger with the use of hydraulics, 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. Eventhough 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 have secure footing and control of the machine. The operator must also be both mentally and physically prepared to react to this force.

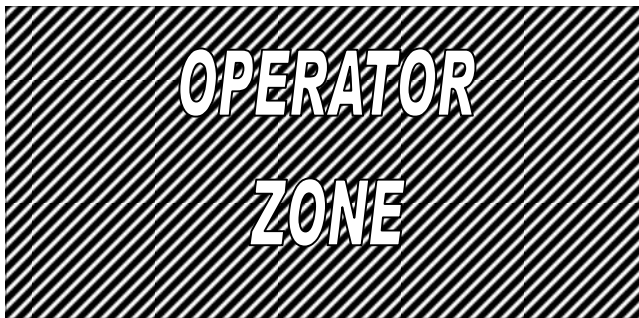
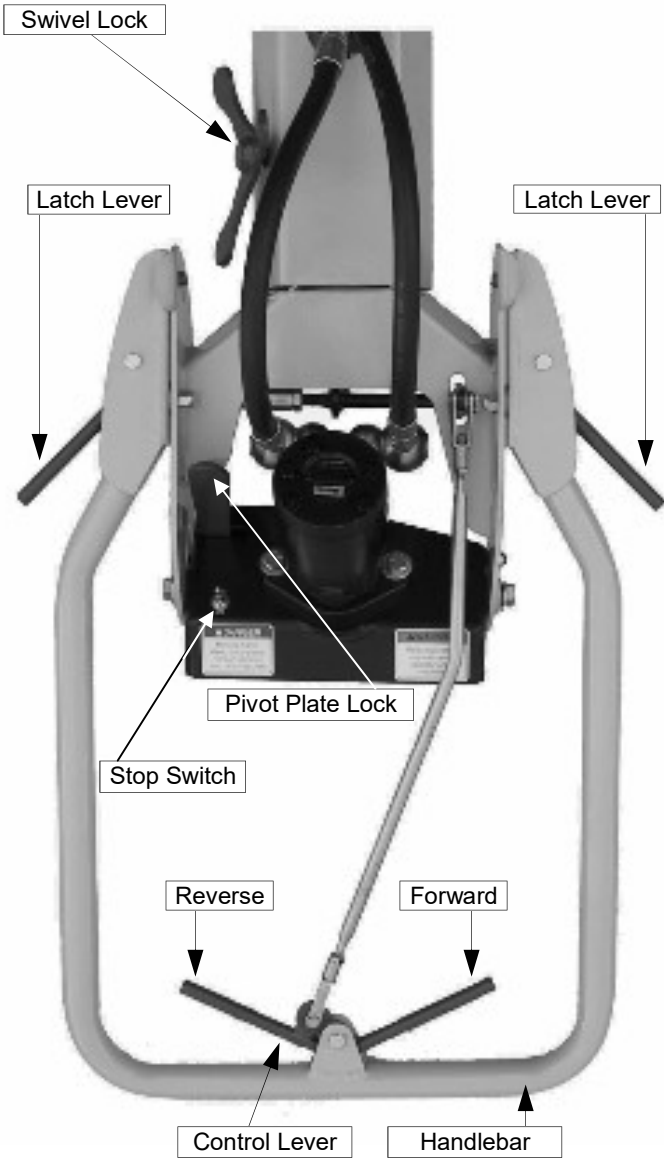
Because the HD99 is a hand operated, portable type machine, it is limited in what it is capable of doing. The job site, soil conditions, job specifications and operator experience may dictate that a different tool or method be used to do the job.

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

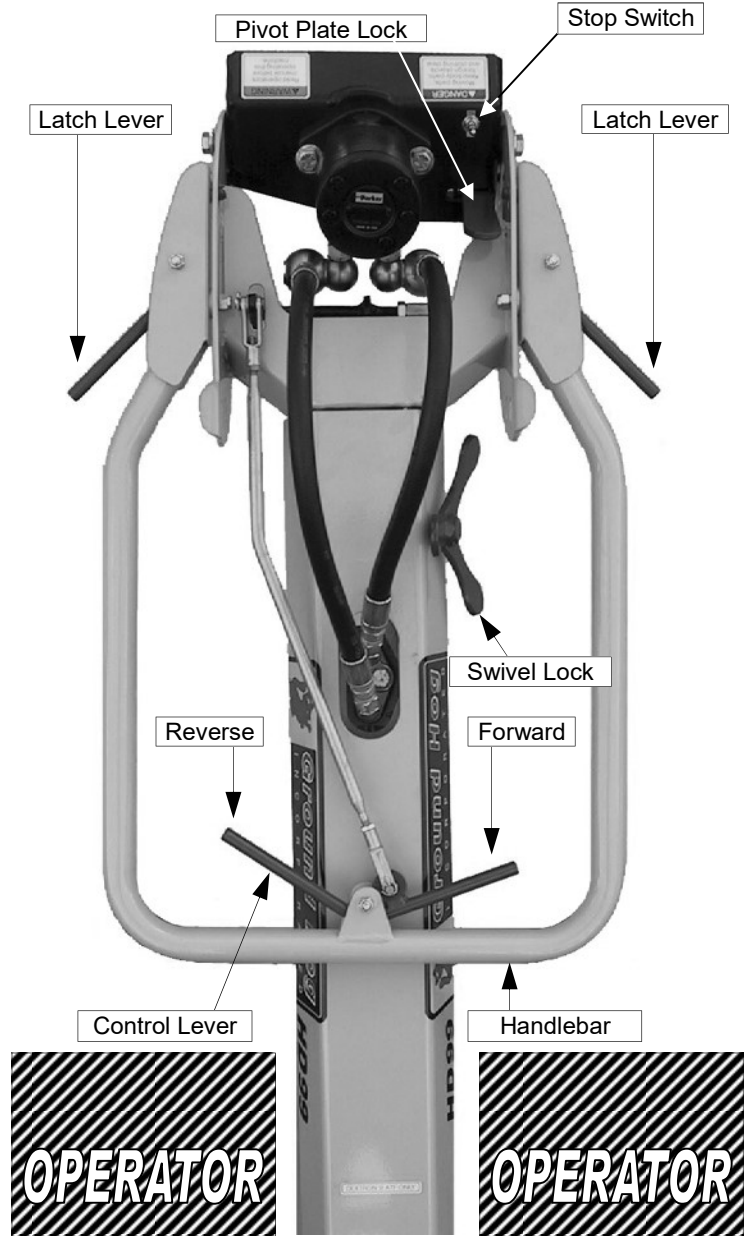


# KEY POINTS OF THE HD99

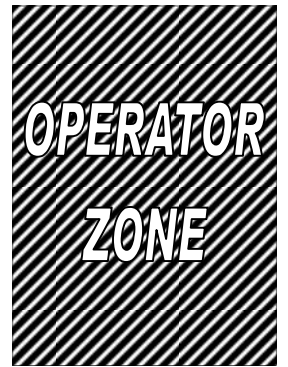
**Normal Digging  
Handlebar Position**



**Up Close Digging and Towing  
Handlebar Position**



...OR...



# TOWING AND TRANSPORTATION

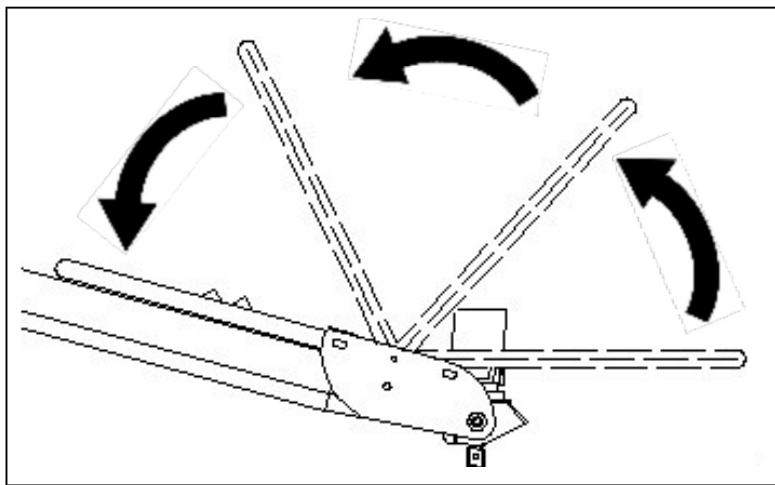
## WARNING

- Comply with local state and highway regulations when towing.
- Read and follow all instructions in this manual.
- Check that ball is completely inserted into coupler socket before towing.
- Check that underjaw is securely closed around bottom of ball.
- Always secure this earth drill with tie downs or similar when transporting in a truck or trailer.
- Properly attach the towing chains

### ATTACHING THE TOWBAR TO THE HD99

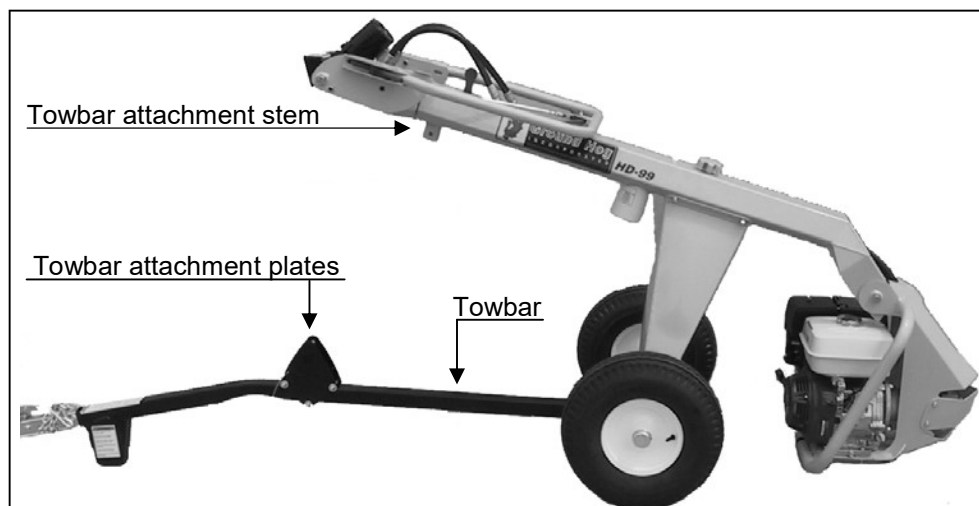
#### STEP 1

Move handlebar to transporting position.



#### STEP 2

Move the earth drill into position as shown below placing towbar on the ground under the axle.

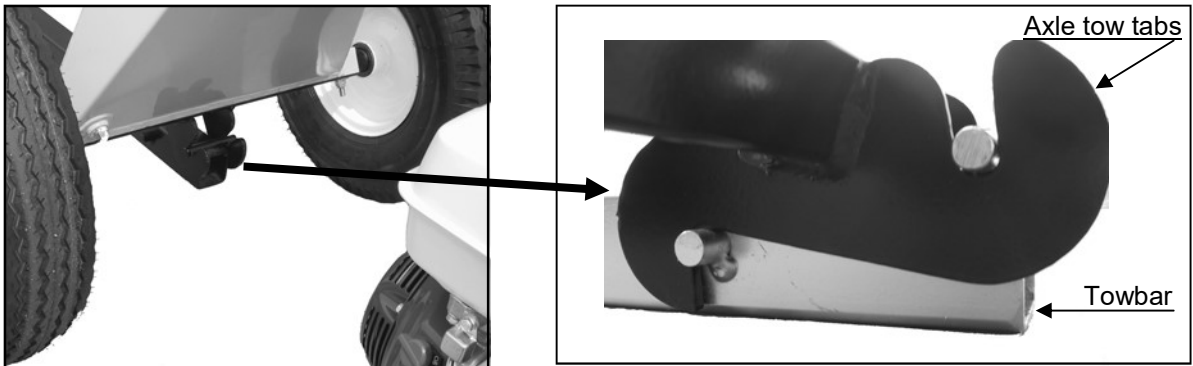


# TOWING AND TRANSPORTATION cont'd...

## ATTACHING THE TOWBAR TO THE HD99 cont'd...

### STEP 3

Attach the towbar to the axle tow tabs as shown below.



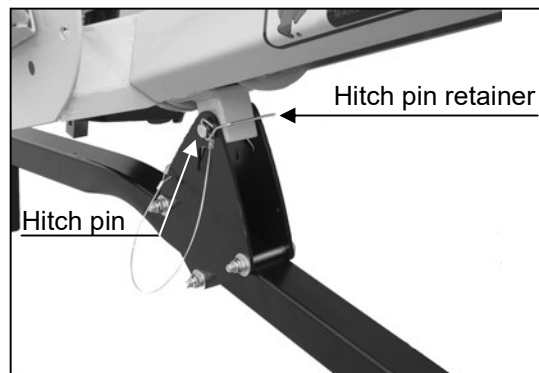
### STEP 4

Lower the earth drill until towbar attachment stem rests in-between the towbar attachment plates .



### STEP 5

Insert the hitch pin all the way through the holes on the towbar stem and attachment plates.





# TOWING AND TRANSPORTATION cont'd...

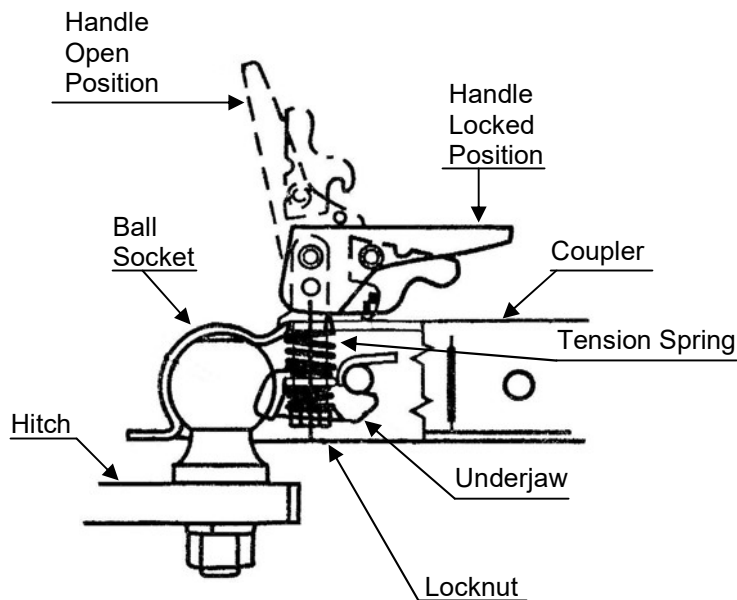
## ATTACHING THE TOWBAR TO THE HD99 cont'd...

### **WARNING**

**Failure to obey these rules can cause trailer to detach while towing which may cause SERIOUS INJURY OR DEATH!**

- Never exceed weight capacity of ball or load limits stamped on coupler.
- Always use safety chains.
- Always use correct size ball shown by stamp on coupler
- Always check that the ball is completely inserted into coupler socket and that underjaw is securely closed around the bottom of the ball.
- Always check that the coupler handle is properly locked before towing.
- Always examine coupler and ball for damage before towing. Replace if damaged.
- Avoid sharp turns and steep vertical angles when towing which may bend or damage coupler or its components.

### Key points of the hitch coupler



### Coupler Operating Instructions

Adjust coupler locking pressure on ball before use. Place handle in locked position with ball in coupler. Tighten locknut against tension spring so that coupler is not loose on ball. Correct adjustment will allow handle to be released with moderate pressure applied to handle.

To open, pull up on coupler handle and rotate forward. Place coupler on ball. When ball is completely nested in ball socket, rotate coupler handle backward until handle is in locked position.

After towing for 50 miles, check coupler for tightness on ball. Always check tightness before towing. Be sure coupler handle is in locked position when towing.





# 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 HD99**

There are two stop switches on the earth drill; one on the pivot plate 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.

## **WARNING**

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

### **STARTING THE HD99**

1. Start the engine following the procedures outlined in the engine manual supplied with the earth drill.

2. Before attaching the auger, always start the earthdrill at the job site and allow it to warm up. While the machine is running, check the controls to be sure that everything is working as properly.

### **STARTING WITH AUGER ATTACHED**

1. 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 clevis pin and clip that we provide (part #1300).

2. Place the machine in the digging position.

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.

4. Set engine to maximum throttle.

## **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. Depress latch levers and rotate the handle bars to the normal digging position if it is not already.

2. Slowly depress the right side of the control lever. Use caution here as the auger will start to turn and dig at this point.

**NOTE:** This unit has a throttling feature. The more that you depress the control 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 required depth.

6. Release the control lever and lift the rest of the dirt out for a clean hole.

7. To reverse the rotation of the auger,, depress the left side of the control lever slowly. Use caution at this point, the auger will tend to climb out of the hole.

8. For up close digging, rotate the handle bars to the up close digging position and follow the instructions above.

**NOTE:** Allow the auger to dig at its own speed. Attempting to force the auger into hard ground and through buried objects could result in the auger becoming locked in the hole. If the auger bit should get locked in a hole, slowly engage the valve control lever in reverse to unlock the auger bit.

9. For digging on uneven terrain, rotate the boring head to the desired angle. Some digging conditions may or may not require you to tighten the swivel lock.



# OPERATING INSTRUCTIONS cont'd...

## **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 power unit and connect the extension shaft to the auger using the pins provided (part #1300).
3. Connect the female end extension shaft the power unit and the male end of the extension shaft to the 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.

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

The picture below shows the proper position of the earth drill when not in use. This position is acceptable with or without the towbar.

