

## **SAFETY INSTRUCTIONS**

**⚠ DANGER:** Failure to observe safety instructions and reasonable safety practices can cause Property Damage, Serious Bodily Injury and/or Death. **BE CAREFUL! WATCH OUT FOR BYSTANDERS!!**

**⚠ DANGER:** NEVER drill holes where there is a possibility of underground power cables, or other hazards. The exact location of underground services must be determined prior to drilling. Inadvertent severing of telephone, fiber optic or CATV transmission cable, or damage to sewer pipe is costly. **RUPTURING OF GAS OR WATER LINES CAN CAUSE SERIOUS BODILY INJURY AND/OR DEATH. COMING INTO CONTACT WITH BURIED POWER LINES CAN CAUSE SERIOUS BODILY INJURY, SEVERE BURNS, AND/OR ELECTROCUTION.** Call local utility companies or your local "One-Call" number at least 48 hours before digging and have underground utilities marked.

**⚠ DANGER:** NEVER run engine inside building or enclosed area. Exhaust gases contain carbon monoxide, an odorless and deadly poison.

**⚠ WARNING:** Augers are not to be used as anchoring devices.

**⚠ CAUTION:**

1. READ and understand this operator's manual and the operator's manual for the engine.
2. NEVER Operate drill without correctly installing torque tube.
3. NEVER Remove auger from hole while auger is turning.
4. NEVER Operate auger at less than full throttle.
5. NEVER Operate drill with damaged auger or other damaged or missing parts.
6. KEEP Hands, Feet and Clothing away from moving parts while engine is turning.
7. KEEP All safety shields and devices in place.
8. MAKE Certain everyone is clear before operating the machine.
9. KEEP leg pad against leg while drilling to maintain safe control.
10. WEAR SAFETY GLASSES.
11. KEEP Bystanders at least 10 feet away from work area.
12. SHUT OFF Engine to adjust, service or clean the machine.

### **NOTICE**

It is the responsibility of the contractor, owner and user to maintain and operate the Earth Drill in compliance with operating instructions provided. Observe all listed safety instructions and other reasonable safety practices. LITTLE BEAVER, INC. accepts no responsibility for damages to this machine, and other property damage and/or bodily injury due to careless or improper operations.

LITTLE BEAVER, INC. does not recommend or condone use of replacement engines greater than eight (8) horsepower.

LITTLE BEAVER, INC. does not recommend or condone any unauthorized modifications to the earth drill, especially those which would eliminate or reduce the effectiveness of the torque tube.

LITTLE BEAVER, INC. reserves the right to make changes in design and changes for improvements upon its product without imposing any obligation upon itself to install the same upon its products theretofore manufactured.

*Your operators manual offers recommendations for prolonged and satisfactory service.*

0798

Page 0-5



### **Maintenance and Lubrication...(cont.)**

#### **FLEXIBLE SHAFT:**

The flexible shaft should be examined every 50 hours of operation and greased if necessary, using the recommended grease.

**RECOMMENDED GREASE:** Lubriplate Portable Tool Grease - GR-132

Available in 10 ounce Tubes, individually or in case of 12.

**ORDER PART # 8070-L.**

#### **CLEANING AND GREASING INSTRUCTIONS:** Follow the instructions provided for proper flexible shaft dis-assembly. (See page P-9 of Parts Manual and follow steps 1, 2,

4 & 5). After the flexible shaft core has been removed, wipe off the old grease with a cloth. Clean the inside of the flexible shaft housing by pulling a clean rag through with a long piece of wire. It may be necessary to make several passes before all grease is removed. Then apply a light coat of recommended grease to the core and re-assembly. **DO NOT over-lubricate,** as this will cause excessive heat to build up in the shaft.

**INSPECTION: HOUSING -** Check for tears or breaks in the rubber casing. Small tears may be repaired by covering with duct tape or shrink tubing. If deep cuts are found and the wire braid is torn, the housing should be replaced.

**CORE -** Check for broken wires and kinks. The core should be replaced if a broken wire is found. Small kinks or twists are OK but if a sharp kink is found, the core should be replaced.

**IMPORTANT:** Excessive amounts of grease inside the flexible shaft assembly will cause the shaft to produce excessive heat and reduce the shaft's life. If the shaft becomes over-heated (too hot to touch), it must be cleaned, inspected (see above) and re-greased. It is also important to follow the proper procedure when greasing the transmission so that excess grease is not forced into the flexible shaft assembly.

#### **DECAL LOCATION:**

The decals which are provided with your machine are shown at the rear of this manual. The decals are important and should be maintained in good condition in the locations as described. If any of the decals are missing or illegible, order replacement kit #9020-O and install before operating the machine.

0396

Page 0-7



## TROUBLESHOOTING

### TROUBLE

Engine will not start.

### CAUSE

- 1.) Toggle Kill Switch on handle is off.
  - 2.) Torque tube is not connected at engine end.
  - 3.) "Oil Guard" protected engines must be filled with oil to full mark on dipstick or to point of overflowing.
  - 4.) If the light inside the engine on/off switch flashes (Briggs & Stratton only), this is an indication that the oil level is low.
  - 5.) Fuel level is too low in gas tank.
  - 6.) Spark Plug is fouled.
- Cannot Connect or Disconnect Auger.**
- 1.) Foreign Matter clogging adaptor.
  - 2.) Spring and button in top of auger is bent or broken.
  - 3.) Adaptor is bent.

Auger turns too slowly and will not dig.

- 1.) Too much downward pressure or binding on side of hole. Hold back, if necessary, to allow auger to turn at full speed.

Auger turns but will not dig.

- 1.) Foreign matter collected around point.
- 2.) Point or blade is dull.
- 3.) Use carbide blade for hard pan soil.

Auger with extension will not dig.

- 1.) Auger or extensions bent or running out of line.

Transmission over-heats.

- 1.) It is normal for the transmission to run hot to the touch. If it is very hot, check for proper oil and free turning.

Auger turns when engine idles.

- 1.) Engine idle is set too high.
- 2.) Sliding wire clip on throttle bracket stuck. (Should move freely when throttle lever is closed.)
- 3.) Clutch Spring broken.

## OPERATING INSTRUCTIONS

### CONNECT TORQUE TUBE

The torque tube consists of a steel tube approx. 66" long with a 1-1/2" square fitting on one end. Part #2 is 29" long with a pivot hole on one end. To assemble, slide the other end of the tube onto the torque arm rod extending from the transmission as shown in figure 2. Attach the square end of the torque tube to the engine bracket as shown in figure 3. Make sure that the safety kill switch is pushed in and that the snap button is aligned with the mating hole provided so that the snap button securely snaps into place. Attach the other end to the handle using the nylon bushings, shoulder bolt and lock washer. (included).



FIGURE 2



FIGURE 3

**WARNING:** NEVER use the Earth Drill unless the torque tube is properly connected.

### BEFORE STARTING THE ENGINE. Be sure that:

- 1.) Engine is properly prepared to Manufacturer's specifications. Note: Engines with "Oil Guard" protection must be filled with oil to the full mark on dipstick or to point of overflowing to allow the engine to start. If the light inside the engine on/off switch flashes (Briggs & Stratton only), this is an indication that the oil level is low.
- 2.) The torque tube is properly attached.
- 3.) There is no auger connected to the handle.
- 4.) The safety kill switch is in "ON" position on the handle and the Torque Tube has engaged the safety kill switch at the engine bracket.

**TO START THE ENGINE:** Set the choke lever to the "ON" position and pull the starter rope. The engine should start after 2 or 3 pulls. Set the choke lever to the "OFF" position and allow the engine to warm-up for 2 or 3 minutes. If the engine does not start, re-check all safety kill switches, then refer to the engine manufacturer's operator manual.

**NOTE:** If it is necessary to gas or "rev" up the engine while starting, push slightly with your thumb against the ball crank on the throttle bracket. (The ball crank is the pivoting triangular plate to which the throttle wire, spring and clip are attached.) This will release spring tension against the governor and allow the carburetor to open slightly. **DONOT** push directly against or try to move the carburetor butterfly or idle screw. Doing so will bend the governor linkage rod.



**AFTER THE ENGINE HAS WARNED UP,** insert the auger into the drive adaptor on the bottom of the handle. Make sure the snap button and hole provided in the adaptor are aligned and the button snaps securely into place. Hold the handle so your left index finger can operate the throttle. Grasp the right handle bar with your right hand. Stand so the auger is straight up-and-down and is properly positioned to dig your hole (see figure 4). Note the safety instructions in this manual and on the machine's decals.



FIGURE 4

- ⚠ NEVER Drill holes where there is a possibility of underground power cables or other hazards.
- ⚠ MAKE certain everyone is clear before operating the machine.
- ⚠ KEEP hands, feet and clothing away from moving parts while engine is running.

**START THE AUGER TURNING** By pulling the throttle lever in completely. Always allow the auger to turn at full speed and let it cut its way into the soil.

**IMPORTANT:** When digging in soft soil, hold up slightly on auger. In hard pan, apply pressure, but not enough to stall the auger or slow it down significantly. The auger works best when it turns at full speed.

**IF THE AUGER STALLS** repeatedly or slows down significantly, stop the auger by releasing throttle lever, slightly lift up on auger, start auger by pulling throttle lever, and allow the auger to turn at full speed while slowly lowering it to bottom of hole. When the desired depth is reached, stop the auger by releasing the throttle lever. Then pull the auger completely out of the hole.

- ⚠ NEVER Remove auger from hole while auger is turning.

**IMPORTANT:** Keep the back as vertical as possible by bending the legs, as required, during the operation and lifting procedure.

**AUGER EXTENSIONS**

If greater hole depths are required, extensions may be used with the auger. After the auger has reached its maximum depth, stop the auger and disconnect the drive adaptor from the auger which remains in the hole. Connect the extension to the auger as shown in figure 5. Connect the drive adaptor to the extension and continue to dig the hole.

When the desired depth is reached, stop the auger and disconnect the drive adaptor from the extension. Then remove the extension (s) and auger from the hole.

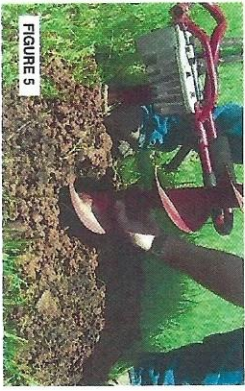


FIGURE 5

**NOTE: If the auger becomes lodged** in roots, rocks, or other underground obstructions, and cannot be pulled free, disconnect the handle from the auger and turn the auger counter-clockwise. It may be necessary to use a pipe wrench to turn the auger. If the auger cannot be dislodged by turning counter-clockwise, it may be necessary to manually dig the auger free.

- ⚠ WHEN WORKING WITH CUTTING BLADE, Point and Auger Fighting, be careful not to be cut by sharp edges.

**STANDARD CUTTING BLADE & POINT**

Check the cutting blade (Item A, Figure 6) on the auger frequently. If it becomes dull, it may be reversed to use the other cutting edge. If the outside of the blade wears even with the auger flighting, replace the blade or rebuild it with a hardsurfacing rod. This is very important to reduce auger flighting wear and damage. The point (Item B, Figure 6) should be replaced when it loses its cutting shape.

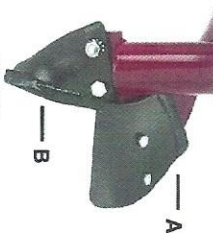
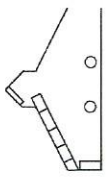


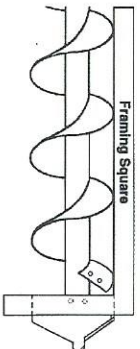
FIGURE 6

**OPTIONAL CARBIDE BLADE:**

An optional carbide blade is available for auger sizes 1-1/2" thru 12". It is designed for use in smooth hard-pan soils, asphalt or frost. It is not recommended for use in rocky soils. The 4" thru 12" carbide blade bolts on to the auger in place of the standard point. The standard blade is not used.



(4-12") Mount the blade to the auger using the included 3/8" x 1-1/4" bolts and nylon lock-nuts. Use a framing square to carefully align the blade at 90 degrees to the auger. Tighten the nuts slowly until snug, then re-check alignment and adjust if necessary. Torque the bolts to 45 ft. lbs.



- ⚠ CAUTION: If the blade is not installed properly, mis-alignment may cause the auger to vibrate and "walk" in use.

**ATTACHMENTS:**

Several attachments are available for your LITTLE BEAVER Earth Drill, including both wet and dry type horizontal boring kits and a drill chuck adaptor which allows you to use a wood bit. Refer to the specific operating instructions supplied with the attachment. If these become lost or misplaced, replacements may be obtained from the factory.



TROUBLE	CAUSE
Motor will not start	<ol style="list-style-type: none"> <li>1) Toggle kill switch on handle is off.</li> <li>2) Engine stop switch is in "OFF" or "O" position.</li> <li>3) Torque tube is not connected at the engine end.</li> <li>4) Fuel level is too low in gas tank.</li> <li>5) On oil guard equipped engine, oil level is too low.</li> <li>6) Spark plug is fouled.</li> </ol>
Cannot connect or disconnect auger.	<ol style="list-style-type: none"> <li>1) Foreign matter clogging adaptor.</li> <li>2) Spring and button in top of auger is bent or broken.</li> <li>3) Adaptor is bent.</li> </ol>
Auger turns too slowly and will not dig.	<ol style="list-style-type: none"> <li>1) Too much down pressure or binding on side of hole. Hold back if necessary to allow auger to turn at full speed.</li> </ol>
Auger turns but will not dig.	<ol style="list-style-type: none"> <li>1) Foreign matter collected around point.</li> <li>2) Point or blade is dull.</li> <li>3) Wrong type blade for soil conditions. Contact dealer or factory for Little Beaver carbide blades.</li> </ol>
Auger with extension will not dig.	<ol style="list-style-type: none"> <li>1) Auger or extensions bent or running out of line.</li> <li>2) Number of extensions exceeds machine capacity.</li> </ol>
Transmission overheats.	<ol style="list-style-type: none"> <li>1) It is normal for the transmission to run very warm to the touch. If you feel it is too hot, consult your dealer or factory.</li> </ol>
Auger turns when engine idles.	<ol style="list-style-type: none"> <li>1) Do not use. Contact your dealer or factory.</li> </ol>
Problems not listed in table.	<ol style="list-style-type: none"> <li>1) Contact your dealer or factory.</li> </ol>

For Further Inquiries Call: 1-800-227-7515

#### SAFETY PRECAUTIONS

**⚠ DANGER:** Failure to observe safety instructions and reasonable safety practices can cause Property Damage, Serious Bodily Injury and/or Death. BE CAREFUL!! WATCH OUT FOR BYSTANDERS!!

**⚠ DANGER:** NEVER run engine inside building or enclosed area.

**⚠ DANGER:** NEVER drill holes where there is a possibility of underground power cables or other hazards.

**⚠ WARNING:** Augers are not to be used as anchoring devices.

**⚠ CAUTION:**

- READ and understand your operator's manual and the operator's manual for the engine.
- NEVER Operate drill without correctly installing torque tube.
- NEVER Remove auger from hole while auger is turning.
- NEVER Operate auger at less than full throttle.
- NEVER Operate drill with damaged auger or other damaged or missing parts.
- KEEP Hands, Feet and Clothing away from moving parts while engine is running.
- KEEP All safety shields and devices in place.
- MAKE Certain everyone is clear before operating the machine.
- KEEP leg pad against leg while drilling to maintain safe control.
- WEAR SAFETY GLASSES.
- KEEP Bystanders away from work area.
- SHUT OFF Engine to adjust, service or clean the machine.

#### Little Beaver How-To Series Basic Operating Instructions for the Mechanical Earth Drill



For over 40 years, the versatile Little Beaver mechanical earth drill has been the #1 choice of professionals who require a one-man auger that is safe and simple to operate. Thanks to our unique Torque Tube, we've eliminated the kickback found in other drills and made one-man post hole drilling safe and productive. Follow the instructions in this guide to ensure proper operation.



**LITTLE BEAVER**  
EARTH DRILLS & AUGERS

P.O. Box 840  
Livingston, TX 77351  
936-327-3151 ph. • 936-327-4025 fax  
1-800-227-7515

Mechanical Earth Drill

#### OPERATING INSTRUCTIONS

##### BEFORE STARTING THE ENGINE

Be certain that:

- (1) The torque tube is properly attached.
- (2) There is no auger connected to the handle.
- (3) All kill switches are "ON"

##### TO START THE ENGINE

Set the choke lever to the "ON" position and pull the starter rope. The engine should start after two or three pulls. Set the choke lever to "OFF" and allow the engine to warm up for two or three minutes.

##### AFTER THE ENGINE HAS WARMED UP

Insert the auger into the drive adaptor on the bottom of the handle. Make sure that the button snaps into place. Hold the handle so that your left index finger can operate the throttle. Grasp the right handle bar with your right hand. Stand so that the auger is straight up and down and is properly positioned to dig your hole.

Note the safety signs on the unit.

**IMPORTANT:** Keep your back as vertical as possible by bending your legs as required during the operation and lifting procedure.

##### START THE AUGER TURNING

Pull the throttle lever in completely. Always allow the auger to turn at full speed and let it cut its way into the soil. In loose sand, hold back so the auger will not screw into the ground. In harder soils, you may have to apply slight pressure, but not enough to stall the auger or slow it down significantly. The auger works best when it turns at full speed. **IMPORTANT:** Avoid potential damage to drive line components from overheating clutch. If auger starts turning, release throttle lever and lift handle to free auger of obstruction before proceeding.

When the desired depth is reached, stop the auger by releasing the throttle lever. Pull the auger completely out of the hole. NEVER remove the auger from the hole while it is still turning.

##### CHECK THE CUTTING BLADE

Check the sharpness of the cutting blade frequently. If it becomes dull, check with your dealer or factory for a replacement. Do not use an auger blade which has worn even with the auger fighting. NEVER operate the earth drill with a damaged auger.

For Further Inquiries Call: 1-800-227-7515

#### How to operate the Earth Drill



1 Slide round end of torque tube onto torque bar attached to handle.



2 Snap torque tube onto connector at engine end.



3 Flip kill switch to "ON" position.



4 Starting position: pull starter rope.



5 Attach auger to transmission adaptor.



6 Stand with feet well clear of auger. Pull throttle lever in completely to start the auger turning.



7 For safety, always keep leg pad against leg while digging.



8 When hole is complete stop auger and pull out for clean hole.



9 For greater depths, un-snap auger from transmission.



10 Snap extension to auger.



11 Continue digging with auger and extension.



12 Remove handle, auger and extension from hole.