

## **Little Beaver Frequently Asked Questions**

### **Customer Service**

*Q. Can I purchase equipment or parts directly from Little Beaver?*

A. We encourage you to purchase through a Little Beaver dealer if there is one in your area. Otherwise, you may purchase directly from the factory in Livingston, Texas.

*Q. How do I place an order with Little Beaver?*

A. Call 800/227-7515 to talk with one of our customer service specialists. We are open from 8 a.m. until 4:30 p.m. CST, Monday through Friday. If you know your exact parts numbers, you may fax your order to 936/327-4025 any time of day. We accept all major credit cards.

*Q. Who can I call for service or technical help?*

A. If you purchased your equipment through a Little Beaver dealer, we encourage you to contact them first for your service needs. Otherwise, you may call our factory at 800/227-7515. Ask for service or technical support.

### **General Operation of Earth Drills**

*Q. I'm only going to be drilling a few holes. Do I need to use the torque tube?*

A. Whenever drilling vertical holes, the torque tube must always be attached. The torque tube transfers digging torque from the drill head to the engine carriage, making one-man drilling both safe and efficient. The only time the torque tube is not used is when you use Little Beaver horizontal boring attachments. In those cases, the torque tube is replaced with a horizontal drill key, which bypasses the engine safety kill switch.

*Q. I'm not sure if there are underground wires or pipes at my digging or trenching site. What should I do?*

A. Call your local "One-Call" center, utility office, or "Digger's Hotline" at least 72 hours ahead so that they can mark the location of buried electrical lines or other utilities. If you fail to do so, you will subject yourself or others to the possibility of serious harm. You may also be breaking the law. Click the link below for a list of One-Call numbers.

[www.utilitycontractor.com/onecallphonenumber.htm](http://www.utilitycontractor.com/onecallphonenumber.htm)

*Q. What is the largest diameter auger I can use on my Little Beaver?*

A. The answer to this question can vary greatly, depending upon your soil conditions.

For loam, sand, clay, or sandy/clay soils:

5 HP mechanical models – 12"

8 HP mechanical models – 12"

11 HP hydraulic models – 16"

11 HP towable model – 16"

For rocky soils (not solid rock, but soil containing stones or rock):

5 HP mechanical models – 8"

8 HP mechanical models – 10"

11 HP hydraulic models – 12"

11 HP towable model – 12"

The 16” nursery auger is designed for use with any of the above models when digging in loam or sandy/clay.

*Q. How deep can a Little Beaver dig?*

A. Digging depth is dependent upon soil conditions and auger diameter. Here are some typical depths achievable in loam or sandy/clay soils.

<b>Auger Size</b>	<b>1.5”,2”,3”</b>	<b>4”,5”,6”</b>	<b>7”,8”</b>	<b>9”,10”</b>	<b>12”</b>	<b>16”</b>
5HP Models	9’	9’	6’	6’	3’	18”
8HP Models	12’	12’	9’	9’	6’	18”
Hydraulic Towable	6’	6’	6’	6’	6’	18”
Hydraulic One Man	12’	12’	9’	9’	6’	18”
Hydraulic Two Man *	21’	24’	15’	12’	12’	18”

\* Optional Tripod accessory is recommended for depths greater than 12 feet.

*Q. My auger is stuck in the ground. What do I do?*

A. In many cases, you can use a pipe wrench on the top of the auger to turn it in a counter-clockwise direction. Disconnect the handle/gearbox first, and be careful not to damage the auger top. We also make a Tee Handle, Part # 9022-T, which can be used to turn the auger out. This situation can be prevented by holding back on the auger when digging in sandy or soft clay soils and allowing the auger to cut its way through.

*Q. I’m trying to drill through hard clay and my Little Beaver earth auger just spins and doesn’t dig in. What’s wrong?*

A. First, check for foreign matter around the point and remove this material as necessary. Then, check the condition of the point and blade. If they are dull, reverse them or replace them. If the auger still does not dig, replace the point and standard blade with a carbide blade. The carbide blade digs best in hard clay or asphalt. It can also be used in frozen ground.

*Q. Do you have an auger that will drill through frozen ground?*

A. Yes. The carbide blade, which can be used on the Little Beaver standard snap-on augers, will cut through frozen ground, asphalt, or hard clay soils.

*Q. Most of my drilling is done in rocky soil. What type of auger would you recommend?*

A. The Little Beaver heavy-duty auger, which use Pengo ® style teeth, is designed for digging in rocky soil. A variety of points and blades are available to meet specific digging conditions. You may also want to consider using the Little Beaver Hydraulic Earth Drill. It has greater torque output than the mechanical unit and turns at a lower rpm, resulting in less vibration. It will also have a longer service life when used in these conditions.

*Q. Are Little Beaver’s points and blades reversible?*

A. Little Beaver bolt-on blades (4”-10”) are reversible to increase their cutting life. The points are not reversible. Be sure to replace your points and blades regularly to ensure best digging performance.

*Q. Can I replace the standard point with a carbide point?*

A. Yes, if you have the Little Beaver standard snap-on auger. Carbide blades are available in sizes to match the diameter of your auger. When replacing a standard point with a carbide blade, be sure to fasten securely with the included grade 5 mounting bolts and locknuts. Use a framing square laid beside the auger and across the back of the carbide blade to ensure that it is mounted squarely. Also, be sure to remove the side blade, as the side blade is not required when using a carbide blade.

*Q. Can I use other brands of augers with the Little Beaver?*

A. Yes. Although you will achieve better performance in most soils with Little Beaver augers, Little Beaver does make adaptors allowing you to use General or Ground Hog brand augers with your Little Beaver earth drill. If you use the adaptors, always be sure to use the included retaining pin. Using a bolt or other pin which protrudes from the auger may result in serious injury.

*Q. How far can I bore a hole using the horizontal boring attachment?*

A. The dry-type sidewalk auger drills up to 5' while the water drilling kits makes horizontal bores up to 50'.

*Q. I need to drill holes in very rough terrain. What model would you recommend?*

A. For traversing rough terrain and slopes, we recommend the Mechanical Earth Drill with pneumatic tires or the optional Rick Sha kit.

*Q. Will the same augers fit on all Little Beaver models (mechanical, hydraulic and towable)?*

A. Yes. Every Little Beaver earth drill model uses the same auger connection (1-1/4" square).

*Q. How long is the warranty?*

A. All models come with a 90 day limited warranty, except for the Towable, which offers a 1 year limited warranty. Engines are warranted by the manufacturer of the engine for 1 or 2 year periods (refer to the engine warranty sheet for details).

*Q. Can I use the Big Beaver auger drill rig to perform an ASTM standard penetration test?*

A. Yes, when used with the SSK-1 soil sampling kit, 140 lb drop hammer, and split spoon sampler, the Big Beaver auger drill rig can be used to perform the Standard Penetration Test as prescribed by ASTM D 1586.

*Q. Do you have Material Safety Data Sheets (MSDS) for your equipment?*

A. For complete MSDS information on the various greases and oils used in Little Beaver products, please click on the web link below.

**Amalie, Tri-Vis Plus 80W-140**

[www.amalie.com/msds/tri\\_vis\\_plus.pdf](http://www.amalie.com/msds/tri_vis_plus.pdf)

**Exxon, Esso Gear Oil 85W-140**

<http://emmsds.ihspsl.com>

(Product number is 513333-00)

**Pennzoil, Slick 50 Treatment**

[www.msds.pzlqs.com](http://www.msds.pzlqs.com)

(MSDS number is 15693)

**Lubriplate, GR132 Grease**

[www.lubriplate.com/msds/gr-132.pdf](http://www.lubriplate.com/msds/gr-132.pdf)

**Unirex N-32 Grease**

<http://emmsds.ihspsl.com>

(Product number is 570309-00)

## **Mechanical Earth Drill Service**

*Q. What types of daily maintenance do I need to perform on my Little Beaver Mechanical Earth Drill?*

A. Both the engine oil and the gearbox oil should be checked daily. You should also visually inspect the Little Beaver to verify that no parts or fasteners are loose, damaged, or missing.

*Q. What type of oil is used in the gearbox of my Mechanical Earth Drill?*

A. For your oil-bath gearbox, we recommend 85W-140 gear oil. For the older grease lubricated gearbox, we recommend Exxon Unirex N2 grease.

*Q. What type of oil should I use in the engine crankcase of my Mechanical Earth Drill?*

A. In most cases, we recommend a 10W30 motor oil. Refer to your engine operator's manual for more specific recommendations.

*Q. Do I need to lubricate the flexible shaft on my Mechanical Earth Drill?*

A. Yes. Every 50 hours, inspect the flexible shaft and grease as necessary. Follow the procedures outlined in your operator's manual.

*Q. I can't start my Mechanical Earth Drill. I've checked the fuel and the spark plug and they're both fine, but it still doesn't start. What could be the problem?*

A. Check that the "on/off" switch on both the engine and the handle are in the "on" position. Also be sure that the torque tube connected to the engine carriage is pushing in the engine safety kill switch. Check that the engine oil is at the proper level. Most engines are equipped with an oil alert or oil guard system to prevent the engine from running if the oil level is too low.

*Q. My auger turns all the time. I tried to adjust the engine idle, but I can't get it low enough. What should I do?*

A. Replace the springs on your centrifugal clutch. When using the earth drill, be sure not to "bog down" the engine. Let it turn fast enough that the clutch doesn't slip. Excessive slippage will cause overheating and loss of temper of the springs.

*Q. My engine runs, but the auger doesn't turn? What could cause this?*

A. There is a problem with the drive train. The most likely source is the flexible shaft core. Inspect the core end fittings for cracks or breakage. Other possibilities are the gears or shaft keys within the gearbox, the adapter key on the gearbox output shaft, or the key on the clutch drum. Refer to a servicing dealer or your maintenance manual for further information.

*Q. I just received a new flexible shaft and it doesn't fit into my gearbox. What's the problem?*

A. You need to remove the coupling from the end of your old flexible shaft. Re-install it into the gearbox and tighten the set screw to lock it in place. Then your new flexible shaft will screw into the coupling.

*Q. Do the Mechanical Earth Drills have a reverse?*

A. No. Only the hydraulic earth drills are reversible.

*Q. To get more torque, I'd like to slow down the speed of my Mechanical Earth Drill. Is there any way to do this?*

A. By replacing the gear set in your transmission, you can obtain lower cutting speeds (277 RPM, 13:1 ratio or 180 RPM, 20:1 ratio) that will generate greater torque and less vibration in rocky ground.

*Q. I have an older Little Beaver mechanical model. Can I replace my old handle with a new handle?*

A. Yes. The new ergonomically designed handle kit (part number HCO-M#) can replace an older handle on your oil bath gearbox. If your machine has a grease lubricated gearbox (built prior to June 1992), you will need to order the UK-30# Update Kit.

*Q. I wish it were easier to lift the engine end of my Mechanical Earth Drill when loading it. Do you have pick up handles available?*

A. Yes. We do have a pick up handle that will fit any model of mechanical earth drill. Adding a roll cage to your machine will also make it easier to lift into a trunk or onto the bed of a pick-up.

### **Hydraulic Earth Drill Service**

*Q. What type of hydraulic oil should I put in the reservoir of my Little Beaver Hydraulic Earth Drill?*

A. Most premium grade, mineral based oils with anti-wear (AW) and anti-foaming additives are suitable. ISO VG 46 grade fluids are recommended for operation in normal temperature environments. Use ISO VG 32 grade in colder climates or ISO VG 68 in warmer climates.

*Q. How much hydraulic oil does it take to fill the reservoir of my Hydraulic Earth Drill?*

A. The Little Beaver hydraulic earth drill holds 5 gallons of oil. The Little Beaver towable hydraulic earth drill holds 6 gallons of oil. The PS-18 power source holds approximately 2.75 gallons.

*Q. What types of daily maintenance do I need to perform on my Hydraulic Earth Drill?*

A. Both the engine oil and the hydraulic oil levels should be checked daily. You should also visually inspect the Little Beaver to verify that no parts or fasteners are loose, damaged, or missing, and check the hydraulic hoses for wear and abrasion.

*Q. My Hydraulic Earth Drill does not seem to have the power that it used to have. What is wrong?*

A. Have you recently changed your hydraulic oil? Some retail or automotive stores sell multipurpose oils designed for tractors that are labeled as hydraulic oils, but are not suitable for use in your power source. Make sure that you always use the recommended grade when replacing your hydraulic oil. Follow the schedule in your operation and maintenance manual regarding oil and filter changes.

*Q. When using my Hydraulic Earth Drill, the auger turns fine in one direction, but does not turn or turns very slowly in the other direction. When I touch the auger to the ground it stops. What's wrong?*

A. Most likely your valve control linkage is bent. This is the small rod that connects the control to the valve spool. Straighten it out, and then make sure that the flat part of the lever (the part you pull or push with your fingers) does not touch the handlebar at any time.

*Q. I'm trying to start the engine on my Hydraulic Earth Drill, but it is hard to pull the starter rope. How do I correct this?*

A. Make sure that the quick disconnect couplings are fully engaged. When connecting the handle to the power source, connect the return side first (the long hose that comes from the return line filter), then connect the pressure side.

*Q. I use my Hydraulic Earth Drill for sign erection. Taking it out of the truck bed and back in again is not easy. Is there anything I can do about this?*

A. Little Beaver's Telescoping Torque Tube Kit consists of a 2-man hydraulic handle, bumper mounted swivel bracket, and a telescoping torque tube. With this Kit, the hydraulic power source can remain in the bed of the truck while the swivel bracket allows 180 degree maneuverability. The torque tube mounts to the swivel bracket and extends from 6 to 11 feet. It may be used with any of the Little Beaver hydraulic power sources, truck auxiliary hydraulic power, or other brands of power sources which meet Little Beaver specifications (6-8 GPM flow, 2000 -2500 Maximum PSI).

*Q. After traveling to the job site with my Little Beaver Towable Earth Drill, I can't pull the recoil rope or the engine is flooded. What's wrong?*

A. You probably did not close the fuel shut-off valve during transit. As a result, fuel flooded the cylinder. Close the fuel shut-off valve and remove the spark plug. While standing off to the side of the cylinder, slowly pull the recoil rope a few times to purge gasoline from the cylinder. Be sure to clean up any spilt fuel. Then, clean and replace the spark plug, open the fuel shut-off valve and try starting the engine again.

*Q. How fast can I tow my Towable Earth Drill?*

A. 25mph is the maximum towing speed allowed when the SMV sign is displayed.

*Q. What size trailer ball do I need to tow my Towable Earth Drill?*

A. The towable earth drill requires a standard 2" trailer ball.

### **Kwik-Trench Earth Saw**

*Q. How deep will the Kwik-Trench Earth Saw dig?*

A. Depending on the model, a Kwik-Trench Earth Saw can dig from 8" to 12" deep.

*Q. How wide of trench will the Kwik-Trench make?*

A. Depending on model, a Kwik-Trench can dig a trench from 2" to 4" wide.

*Q. Is there a way to increase or decrease the trenching width?*

A. All models offer variable trenching widths by mounting different sets of cutting teeth on the cutting wheel.

*Q. Are there self-propelled models available?*

A. No. At this time, all Kwik-Trench models are manually pushed forward.

*Q. Is the reduction gearbox filled with oil when I receive my new machine?*

A. Yes, the separate reduction gearbox on models with 5.5 HP Honda or Briggs & Stratton engines is filled with oil at the factory. However, you should always check the oil level before the first use and at regular

intervals thereafter. The gearbox on the 6.5 and 8 HP Honda engines is lubricated by the engine crankcase oil. The engine crankcase must be filled by the owner before the new machine is used.

*Q. Will the Kwik-Trench cut through asphalt and tree roots ?*

A. Yes. Any model Kwik-Trench with Super Blade Plus or Super Xtra Rock Teeth will easily and cleanly cut through asphalt. It also cuts through tree roots up to 10" in diameter in a matter of seconds.

*Q. How long will the trenching teeth last?*

A. This depends on the types of material that you are cutting. If you are frequently cutting in rocky conditions, the optional Super Xtra Rock Teeth will last 3 – 5 times longer than the standard teeth.

*Q. How long will the clutch facings last?*

A. The life of the clutch facings varies greatly depending upon the soil conditions, trench width and depth, and the operator. Many users can get a full season's use from the clutch facings; others will go through several sets. You should regularly monitor these parts for wear and replace as necessary. Keep the mounting bolts and springs tight at all times.

*Q. The cutter wheel quits turning when I push forward. What is causing this?*

A. Either the clutch mechanism or the drive belts are slipping. Check the belts for proper tension. Check the condition of the clutch facings and make sure that the springs and shoulder bolts on the pressure plate are tight. In certain conditions, such as very hard clay soils, you should push more slowly and let the machine cut at a slower rate.

*Q. How can I cut straight trenches?*

A. The rear swivel wheel can be locked in position when straight trenches are required.

*Q. How can I transport the Kwik-Trench?*

A. The compact Kwik-Trench can be transported in a van, pickup truck, or small trailer. A specially designed tilt bed utility trailer is available from Little Beaver that makes it extremely simple to transport the Kwik-Trench.

*Q. My machine binds when I try to raise or lower it. What can I do to prevent this?*

A. Clean the guide tubes and lubricate with a graphite or silicon spray.

*Q. Can I upgrade my direct drive earth saw to a belt drive model?*

A. Yes. This can be accomplished only by replacing the entire frame/shroud assembly. Contact the factory for details.

*Q. How long is the warranty?*

A. All models come with a 1 year limited warranty from Little Beaver. Engines are warranted by the manufacturer of the engine for 1 or 2 year periods (refer to the engine warranty sheet for details).