



LONE STAR DRILLS

A LITTLE BEAVER COMPANY

SOIL SAMPLING EQUIPMENT

PORTABLE. POWERFUL. PROFITABLE.





Take Control of Soil Sampling

Accurate and efficient soil sampling doesn't need to be cumbersome or costly. Little Beaver offers a full line of soil testing equipment designed to put the control back in your hands.

Our units offer solutions for confined spaces and difficult-to-access areas with trailer-mounted units light enough to pull with an ATV or UTV, and options for truck- and track-mounted systems, as well. Drills ship fully assembled in a crate or can be knocked down and palletized to reduce shipping cost.

Let us help you take control of your projects.

STANDARD PENETRATION TESTING (SPT)

GEOTECHNICAL TESTING

WELL MONITORING

CORE SAMPLING

LITTLE BEAVER

HYDRAULIC EARTH DRILL WITH TRIPOD



Little Beaver's hydraulic earth drill pairs with a tripod kit for the ultimate portability and value in soil sampling. Equipped with a powerful hydraulic drive and 11-horsepower engine, the hydraulic earth drill delivers excellent control and smooth sample lifting. The tripod kit is quick to set up and designed specifically for taking soil samples.

APPLICATIONS

Soil Sampling



Drilling Depth	35 ft (10.7 m)
Borehole Diameter	4 in (10.2 cm)
Soil Types	Sand, clay, and soft rock formations
Pullback Force	1,000 lbs (454 kg)
Operating Weight	450 lbs (205 kg)
Auger Diameter	4 in (10.2 cm)
Auger Length	36 in (91.4 cm)
Max Drilling Torque	280 ft·lbs (379.6 N·m)
Frame	Welded mechanical steel tubing
Engine	Gas: Honda GX340 11 hp (8.2 kW)
Speed	150 rpm at 6 gpm (22.7 L/m)
Transport Options	Mounted on a wheeled base frame
Soil Sampling Kit	Not included

HAND SAMPLING TOOLS

Standard hand sampling tools come in 1.5- and 2-inch (3.8- and 5-centimeter) diameters and can be used with any of Little Beaver's mechanical or hydraulic augers.



LITTLE BEAVER

BIG BEAVER

The Big Beaver Drill and SSK-1 cathead kit make a great combination for environmental soil sampling. The drill is compact, portable and can easily maneuver through gates and doorways, making it a powerful option for tight spaces. The Big Beaver drill comes in standard and extra-length (XL) models. The standard model handles augers as long as 4 feet, while the XL accommodates a 5-foot auger. Shown with optional Inverted Head.

APPLICATIONS

Soil Sampling | Geotechnical Testing | Well Monitoring | Foundation Repair | SPT

Drilling Depth	Up to 100 ft (30.5 m) - with 6-inch auger
Borehole Diameter	Up to 18 in (40.6 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	2,500 lbs (1,134 kg)
Dimensions LxWxH	48 x 26 x 80 in (122 x 66 x 203 cm)
Operating Weight	540 lbs (244.9 kg)
Auger Diameter	3 - 18 in (7.62 - 45.7 cm)
Auger Length	3, 4 or 5 ft (.91, 1.22 or 1.52 m)
Max Drilling Torque	500 / or 1,100 with HT option
Frame	Welded mechanical steel tubing
Engine	Gas: Honda GX630 20 hp (14.9 kW)
Speed	150 rpm at 10 gpm (37.9 l/m)
Transport Options	Mounted on a wheeled base frame
Soil Sampling Kit	Optional
High Torque Rotary Head	Optional
High Speed Rotary Head	Optional



LONE STAR

LST1A+



The fully hydraulic LST1A+ comes mounted on a rugged-but-lightweight single-axle trailer and features an auger head drive that makes it well-suited for drilling holes to examine soil cuttings. Its three leveling jacks allow for fast setup and stable drilling. The machine can drill a 6-inch borehole to 35 feet with a hollow stem auger or drill as deep as 50 feet with a standard auger. The rotary swivels aside for easy access to the borehole. The rig can be easily towed by an ATV or UTV, shipped fully assembled in a crate, or knocked down and palletized for less expensive transportation overseas or by truck.

APPLICATIONS

Soil Sampling

Drilling Depth	50 ft (15.24 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	5,000 lbs (2,268 kg)
Operating Weight	1,750 lbs (793.79 kg)
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	4 or 5 ft (1.22 or 1.52 m)
Max Drilling Torque	500 ft-lbs (677.9 N·m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda GX630 20 hp (14.9 kW)
Speed	150 rpm at 10 gpm (37.9 L/m)
Transport Options	Trailer mounted
Safety Hammer	NA
Soil Sampling Kit	NA



LONE STAR

LST1A+HD



The LST1A+HD has all the features of the LST1A+ but offers enhanced power and capabilities, with increased pullback/push force and as much as 1,100 foot-pounds of torque to handle challenging soils. The machine can drill a 6-inch borehole to 100 feet at up to 100 rpm.

APPLICATIONS

Soil Sampling

Drilling Depth	100 ft (30.5 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	up to 8,500 lbs (3,855.53 kg)
Operating Weight	1,875 lbs (850.49 kg)
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	4 or 5 ft (1.22 or 1.52 m)
Max Drilling Torque	1,100 ft-lbs (1,491.4 N.m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda iGX800 25 hp (18.64 kW) Optional Diesel: Kohler KDW1404 24 hp (17.9 kW)
Speed	100 rpm at 12.5 gpm (51.1 L/m)
Transport Options	Trailer mounted
Safety Hammer	NA
Soil Sampling Kit	NA



LONE STAR

LST1G+

The LST1G+ geotechnical drill easily takes on challenging applications, especially in places inaccessible with larger equipment. This drill includes a tower, cathead, pulley and rope to facilitate standard penetration testing with a 140-pound manual safety hammer. Use it with Lone Star's optional split-spoon sampler or hollow stem augers to take core samples. Powered by a 20-horsepower Honda gas engine, the fully hydraulic drill rig system provides a speed of 150 rpm at 10 gpm. The 5,000-pound lifting capacity of the LST1G+ ensures easy removal of augers and extensions.



APPLICATIONS

Soil Sampling | Geotechnical Testing | Well Monitoring | SPT

Drilling Depth	50 ft (15.24 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	Up to 5,000 lbs (2268 kg)
Operating Weight	1,850 lbs (839.15 kg)
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	4 or 5 ft (1.22 or 1.52 m)
Max Drilling Torque	500 ft-lbs (677.9 N·m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda GX630 20 hp (14.9 kW)
Speed	150 rpm at 10 gpm (37.9 L/m)
Transport Options	Trailer mounted
Safety Hammer	Manual
Soil Sampling Kit	Included



LONE STAR

LST1G+HD TRAILER-MOUNTED

The LST1G+HD geotechnical drill is similar to the LST1G+ but offers enhanced power and capabilities. It has a planetary reduction gearbox for up to 1,100 foot-pounds of torque and increased pullback/push force to tackle challenging soils.

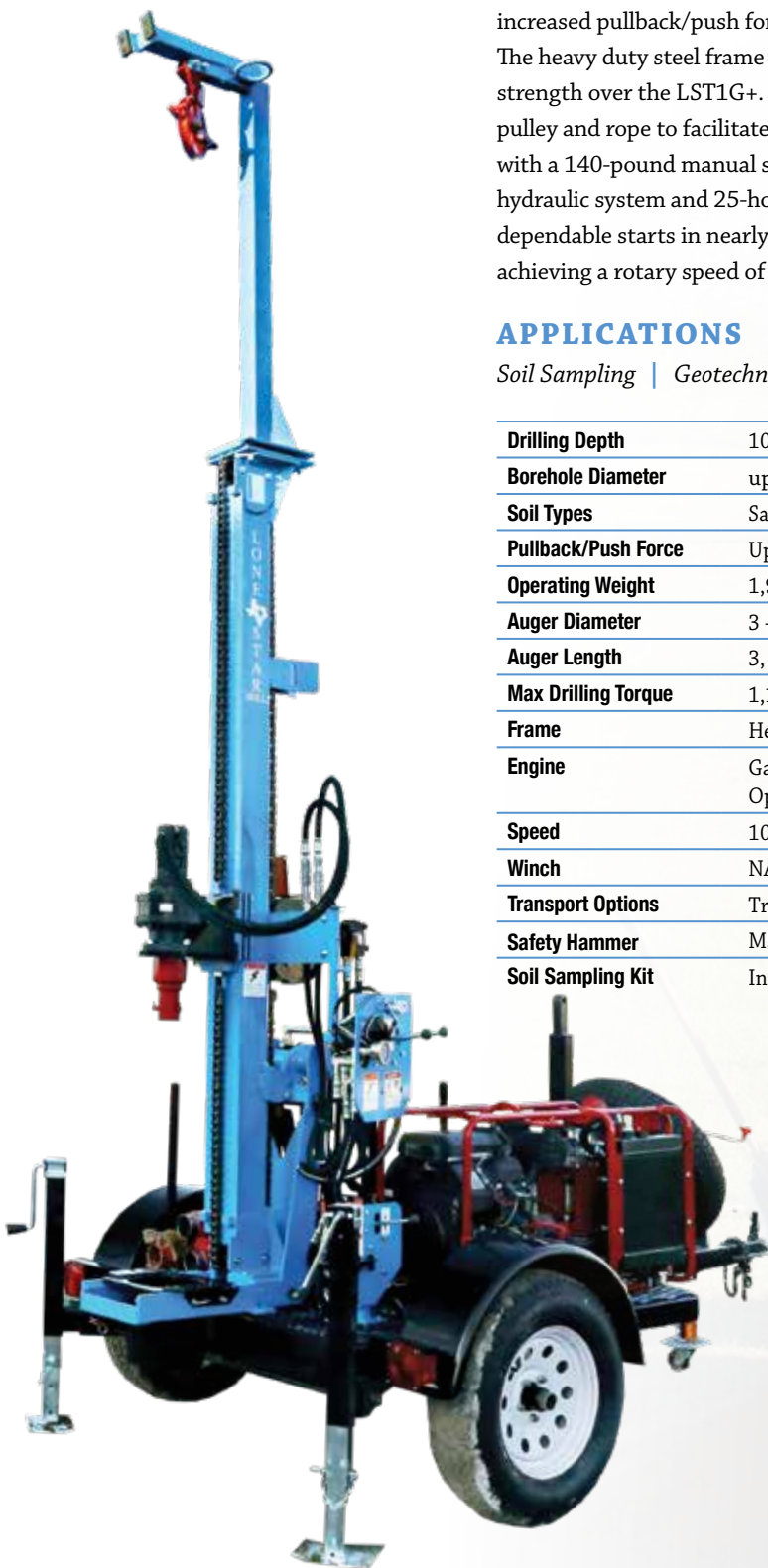
The heavy duty steel frame features a 50 percent increase in strength over the LST1G+. This drill includes a tower, cathead, pulley and rope to facilitate standard penetration testing with a 140-pound manual safety hammer. The drill also includes a powerful 3,000-psi hydraulic system and 25-horsepower Honda gas engine with EFI and electronic governor for dependable starts in nearly any conditions. The hydraulic power pack operates at 12.5 gpm, achieving a rotary speed of 100 rpm with as much as 1,100 foot-pounds of torque.



APPLICATIONS

Soil Sampling | Geotechnical Testing | Well Monitoring | SPT

Drilling Depth	100 ft (30.5 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	Up to 8,500 lbs (3,855.5 kg)
Operating Weight	1,950 lbs (884.5 kg)
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	3, 4 or 5 ft (.91, 1.22 or 1.52 m)
Max Drilling Torque	1,100 ft-lbs (1,491.4 N·m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda iGX800 25 hp (18.64 kW) Optional Diesel: Kohler KDW1404 24 hp (17.9 kW)
Speed	100 rpm at 12.5 gpm (51.1 L/m)
Winch	NA
Transport Options	Truck bed or trailer mounted
Safety Hammer	Manual
Soil Sampling Kit	Included



LONE STAR

LST1G+HDA

TRAILER-MOUNTED

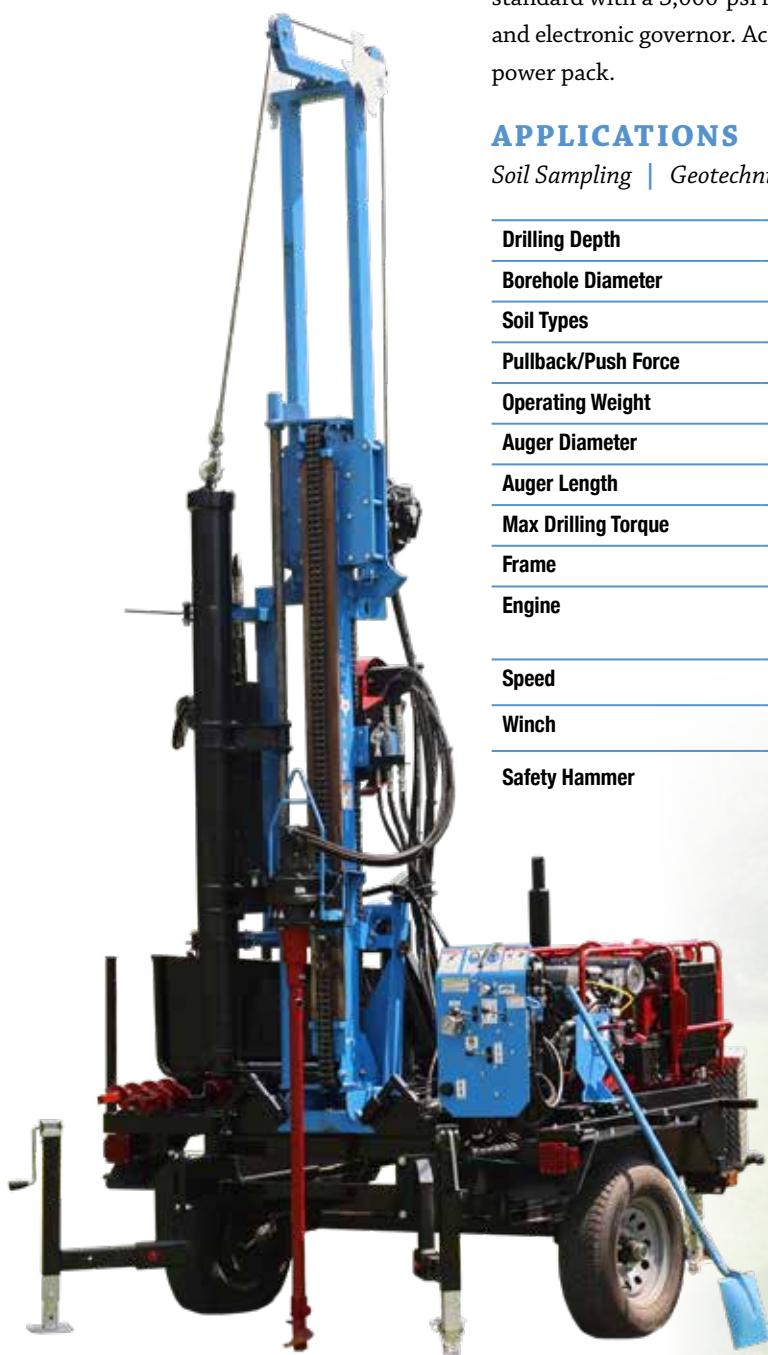
Lone Star's trailer-mounted LST1G+HDA geotechnical drill addresses the growing need for automatic hammers in soil sampling applications. The automatic hammer ensures easy operation for precise sampling and is paired with a hydraulic winch with 1,500 pounds of pull for raising the hammer and sampling string. The drill features a planetary reduction gearbox with up to 1,100 foot-pounds of torque to drill deeper and handle large-diameter augers more efficiently. This model also comes standard with a 3,000-psi hydraulic system and 25-horsepower Honda gas engine with EFI and electronic governor. Achieve a rotary speed of 100 rpm with its 12.5 gpm hydraulic power pack.



APPLICATIONS

Soil Sampling | Geotechnical Testing | Well Monitoring | SPT

Drilling Depth	100 ft (30.5 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	Up to 8,500 lbs (3,855.5 kg)
Operating Weight	3,000 lbs (1360.78 kg)
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	3, 4 or 5 ft (.91, 1.22 or 1.52 m)
Max Drilling Torque	1,100 ft-lbs (1,491.4 N·m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda iGX800 25 hp (18.64 kW) Optional Diesel: Kohler KDW1404 24 hp (17.9 kW)
Speed	100 rpm at 12.5 gpm (51.1 L/m)
Winch	1,500 lbs (680.4 kg)
Safety Hammer	Automatic



LONE STAR

LST1G+HD

TRUCK-MOUNTED

Lone Star's truck-mounted LST1G+HD geotechnical drill offers the torque and power of the trailer-mounted option with a frame that is designed for truck mounting. The model includes a tower, cathead, pulley and rope to facilitate standard penetration testing with a 140-pound manual safety hammer. When mounted to a truck base, it offers fast setup on semi-level ground. Powered by a 25-horsepower Honda gas engine, and a 3,000-psi hydraulic system, the rig achieves a rotary speed up to 100 rpm and drills to 100 feet.



APPLICATIONS

Soil Sampling | Geotechnical Testing | Well Monitoring | SPT

Drilling Depth	100 ft (30.5 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	Up to 8,500 lbs (3,855.5 kg)
Operating Weight	2,500 lbs (1133.98 kg) + vehicle weight
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	3, 4 or 5 ft (.91, 1.22 or 1.52 m)
Max Drilling Torque	1,100 ft-lbs (1,491.4 N·m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda iGX800 25 hp (18.64 kW) Optional Diesel: Kohler KDW1404 24 hp (17.9 kW)
Speed	100 rpm at 12.5 gpm (51.1 L/m)
Safety Hammer	Manual
Soil Sampling Kit	Included



LONE STAR

LST1G+HDA

TRUCK-MOUNTED

Lone Star's truck-mounted LST1G+HDA geotechnical drill is the same as our trailer-mounted unit but features a specially designed frame for truck mounting. Its 140-pound automatic hammer eliminates manual user error and makes it easy for operators of any experience level to take samples quickly and accurately. When mounted to a truck base, the unit offers streamlined service for quick setup on semi-level ground. This model comes standard with a 3,000-psi hydraulic system and 25-horsepower Honda gas engine with EFI and electronic governor. A rotary speed of 100 rpm is achieved with a 12.5 gpm hydraulic power pack.



APPLICATIONS

*Soil Sampling | Geotechnical Testing | Well Monitoring | SPT
Rock Coring | Wash Boring*

Drilling Depth	100 ft (30.5 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	Up to 8,500 lbs (3,855.5 kg)
Operating Weight	2,500 lbs (1133.98 kg) + vehicle weight
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	3, 4 or 5 ft (.91, 1.22 or 1.52 m)
Max Drilling Torque	1,100 ft-lbs (1,491.4 N·m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda iGX800 25 hp (18.64 kW) Optional Diesel: Kohler KDW1404 24 hp (17.9 kW)
Speed	100 rpm at 12.5 gpm (51.1 L/m)
Winch	1,500 lbs (680.4 kg)
Safety Hammer	Automatic
Progressive Cavity Pump	Optional
High Speed Rotary Head	Optional



LONE STAR

LSGT+HDA

TRACKED

Testing sites aren't always in ideal locations. National parks, delicate turf, wet or soft soil and other restricted sites often present problems, as the ground can't be disturbed by a large truck and trailer. The track-mounted LSGT+HDA is the newest addition to the Lone Star Drill geotechnical range developed to address customer demand. The drill design offers the same features as the LST1G+HDA with the added benefit of remote controlled tracks. This feature allows operators to position the drill in hard-to-reach areas with delicate underfoot while providing hydraulic leveling control. The drill comes standard with a 140-pound automatic hammer paired with a hydraulic winch to ensure accurate SPT sampling as well as easy operation for raising the hammer and sampling string. A diesel option is also available.



APPLICATIONS

*Soil Sampling | Geotechnical Testing | Well Monitoring | SPT
Rock Coring | Wash Boring*

Drilling Depth	100 ft (30.5 m) - with 6-inch auger
Borehole Diameter	up to 8 in (20.3 cm)
Soil Types	Sand, clay and soft rock formations
Pullback/Push Force	Up to 8,500 lbs (3,855.5 kg)
Operating Weight	4,750 lbs (2,160 kg)
Auger Diameter	3 - 8 in (7.6 - 20.3 cm)
Auger Length	3, 4 or 5 ft (.91, 1.22 or 1.52 m)
Max Drilling Torque	1,100 ft-lbs (1,491.4 N·m)
Frame	Heavy-duty welded steel
Engine	Gas: Honda iGX800 25 hp (18.64 kW) Optional Diesel: Kohler KDW1404 24 hp (17.9 kW)
Speed	100 rpm at 12.5 gpm (51.1 L/m)
Winch	1,500 lbs (680.4 kg)
Safety Hammer	Automatic
Progressive Cavity Pump	Optional
High Speed Rotary Head	Optional



ACCESSORIES

OPTIONAL ACCESSORIES



SSK-1 CATHEAD KIT

Standard: LST1G+ | LST1G+HD

Optional on: Big Beaver

To quickly convert your Big Beaver drill from a standard drill to a geotechnical drill, simply add the optional SSK-1 Cathead Kit. The SSK-1 includes a third hydraulic valve, tower kit and spool. It can be used with Little Beaver's AWJ drilling rod and 2-inch by 24-inch split spoon sampler, which allows users to obtain core samples for environmental tests or geotechnical engineering projects.

Included Components: Cathead, valve, sheave, rope, tower, stabilizing legs



SPLIT SPOON SAMPLER

Big Beaver | LST1G+ | LST1G+HD | LSGT+ HDA

The split spoon sampler provides core samples as long as 24 inches (62 centimeters) and is commonly used with the cathead kit and safety hammer.



MANUAL SAFETY HAMMER

Big Beaver | LST1G+ | LST1G+HD

The 140-pound (63.5-kilogram) safety hammer easily drives the split spoon sampler into the soil.



HOLLOW STEM AUGERS

Big Beaver | LST1G+ | LST1G+HD | LSGT+ HDA

In unstable soil, hollow stem augers collect samples without risk of contamination. The augers come in 6- and 8-inch (16.24- and 20.32-centimeter) diameters and feature 2 $\frac{3}{4}$ - or 3 $\frac{3}{4}$ -inch (7- and 9.5-centimeter) internal diameters. The center rod and center plug can be removed to create a clear path for inserting a soil sampler.



EXTRUDER

Optional on: Truck or Trailer-Mounted LST1G+HDA, Track Mounted LSGT+HDA

Extrude soil samples at various levels of compactness from Shelby tubes and other samplers.

**VIEW ADDITIONAL
PRODUCT INFORMATION,
RESOURCES AND TIPS AT:**

www.lonestardrills.com

www.YouTube.com/LoneStarDrills





LITTLE BEAVER®
EARTH DRILLS & AUGERS



LONE STAR DRILLS
A LITTLE BEAVER COMPANY

www.littlebeaver.com
www.lonestardrills.com

Little Beaver has been proudly manufacturing quality, safe and productive drilling equipment for three generations. It offers a full line of easy-to-operate equipment, and a complete array of accessories to effectively serve all end-users, from professional contractors to rental centers.

Little Beaver acquired Lone Star Drills in 2005, adding an innovative new line of products to the Little Beaver family. All Little Beaver products are designed as convenient, powerful solutions that require minimal resources for operation and transportation.

2009 South Houston, Livingston, TX 77351

Phone: 800-227-7515

Fax: 936-327-4025

Email: sales@littlebeaver.com

