

LITTLE BEAVER
EARTH DRILLS & AUGERS


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Hollow Stem Augers

“Little Beaver How-To Series”

Basic Drilling Instructions for the Hollow Stem Augers

-  **DANGER:** Never dig where there is a possibility of underground power lines or other hazards. Electrocutation or serious bodily injury may result. Before you dig, call your local one-call agency.

-  **DANGER:** Keep the machine and drilling tools away from overhead electric wires and devices. Electrocutation can occur without direct contact. Failure to keep away will result in serious injury and/or death.

-  **CAUTION:** Read and understand all operator’s manuals for equipment being used before operating. These “Operating Instructions” are to be used as a supplemental aid, not replacement, with the Big Beaver Operator’s Manual.

SETUP PROCEDURE:



1
Loosen the (2) locking bolts to allow cutter head to be assembled to the bottom of hollow stem auger.



2
Attach cutter head by aligning the keys with the slots and tightening the (2) locking bolts.



3
Insert center rod with point and plug attached..

NOTE: Use a 3/4" open end wrench on the bushing to prevent it unscrewing when removing the locking bolts.



4
Attach drive cap to center rod with pin.



5
Attach drive cap by aligning the keys with the slots and tightening the (2) locking bolts.



6
Level the drill mast by referring to the Big Beaver operator's manual.

DRILLING PROCEDURE:



1
Attach lead auger assembly to drive adaptor using the adaptor pin. Lower lead auger assembly, without rotating, until the point contacts the ground. Be sure auger is parallel with the drill mast. Begin drilling.



2
If drilling through sod or heavy ground cover, raise auger to clear debris from cutter head before continuing.



3
Drill to bottom of stroke or desired sampling depth. Without rotating, raise and/or lower drill string until cutter head is resting on the bottom of the hole (the adaptor pin can be moved freely).

DRILLING cont...



4
Loosen drive cap locking bolts (2). Raise drive cap while remaining connected to center rod. While using locking pliers as a stop to hold the center rod, lower drive cap and center rod until adaptor pin moves freely.



5
Remove drive cap by removing pin from drive cap, raising drill head, and removing adaptor pin.



6
Pivot drill head to side. Attach center rod puller to top of center rod with drive pin.



7
Remove center rod. Take soil sample as needed.



8
Reinsert center rod string with additional center rod and center rod puller attached.



9
Add hollow stem section by sliding over center rod and attaching to hollow stem string. Use locking pliers as stop to hold center rod above hollow stem.



10
Remove center rod puller. Install drive cap to center rod.



11
Pivot and lock drill head into place. Connect drill head to drive cap using adaptor pin.



12
Raise drill head in order to remove locking pliers.

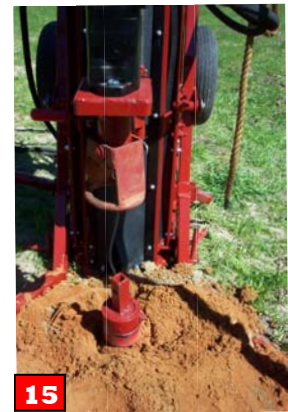
DRILLING cont...



13 Lower drill head to connect drive cap to hollow stem auger. Proceed with drilling. Repeat from step 3 as necessary.



14 When drilling has been completed, remove all center rod from hole. Attach drive cap to hollow stem.



15 Attach retrieval tool to adaptor.



16 Use retrieval pin to connect drive cap.



17 If necessary, the auger string may be rotated when retrieving.



18 Raise auger string until the second (from top) hollow stem section can be held in position with auger fork/stop.



19 Lower auger string until its weight is supported by the auger fork/stop.



20 Loosen the (2) locking bolts. Raise drill head and remove hollow stem auger section.



21 Reattach drive cap to auger string. Use retrieval pin to connect drive cap. Raise auger string to remove auger fork/stop.

! **CAUTION:** Remove auger fork/stop before rotating auger string.

Repeat procedure from step 18 until all hollow stem sections are removed.