

II SAFETY INFORMATION

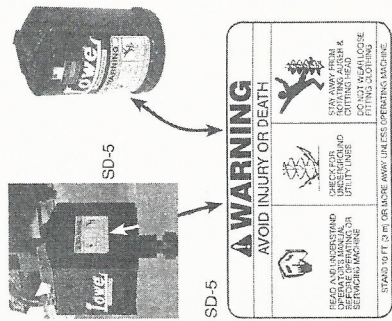


The Safety Alert Symbol is used in this manual to highlight messages where your safety is involved. When you see it, pay attention.

To emphasize special information, the words listed below carry specific meanings and should be carefully reviewed.

- Danger..... Denotes the most serious potential hazard(s).
- Warning..... The personal safety of the operating personnel or other persons may be involved. Disregarding this information could result in injury.
- Caution..... General reminders of good safety practices or to direct attention to unsafe practices.
- Note..... This is special information which may make operation of maintenance easier, or make instructions more clear.

LOCATION OF SAFETY WARNINGS:



ASD-1



SD-13 For boom quick-teach mountings on excavators and backhoes.

Replacement Safety Decals

Worn, damaged, or illegible labels should be replaced. New labels may be obtained from the manufacturer. Labels are listed under specific part numbers and are included in the safety decal illustration.

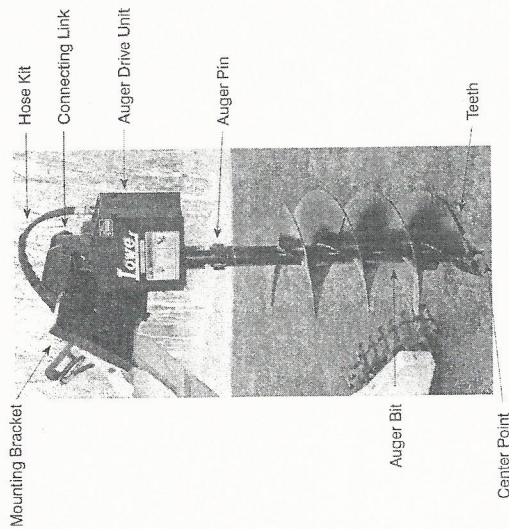
Replacement Safety Shields

All worn, damaged, unusable, or missing safety shields should be replaced. New shields may be obtained from the manufacturer. They are listed with a specific part number and are included in the exploded parts diagram.

Obligations and Usage:

This product is intended to be used only under the guidelines of this manual and relevant literature published by LOWE[®] Manufacturing Company, Inc. It is the owner's and/or operator's obligation to ensure this product is operated only for its intended uses. Operation contrary to guidelines set forth may cause premature breakage of the equipment and create serious safety problems.

III MACHINE NOMENCLATURE



IV MACHINE SETUP

Your new auger drive unit comes completely assembled from the factory. However, some items may have loosened or become lost during shipping or use. Because of the elements in which an auger operates, the following checklist should be thoroughly completed each time before the machine is used.

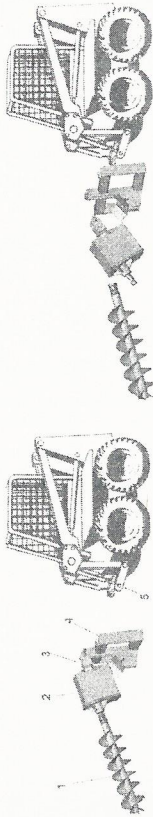
Make certain that all power sources are disconnected before servicing!

- 1) _____ All nuts, bolts, and other hardware are tightened securely.
- 2) _____ All safety covers are secured in their proper positions.
- 3) _____ The two attachment hoses that run from the loader to the auger are secure and are long enough to perform the full range of the auger's capability. Such hoses are usually not supplied with the drive unit.
- 4) _____ The auger mounting bracket is properly secured to the loader's boom and all levers and/or pins are properly locked in place.
- 5) _____ All hoses and fittings are properly tightened to avoid leaks.
- 6) _____ All controls operate freely and in the correct manner.
- 7) _____ The operator has been briefed on proper operation of the auger.



Warning: Do Not use a "Hole Top" cleaning device that extends past the normal working diameter of the auger. Use of such a device greatly increases the chance of accidentally striking another person or object, causing possible serious injury or equipment damage.

V MOUNTING INSTRUCTIONS



- 1) Connect auger drive (item 2), connecting link (item 3), and mounting bracket (item 4).
- 2) Attach your choice of auger (item 1) to the shaft of the drive unit. Be sure auger pin is secured.
- 3) Connect mounting bracket to loader's boom plate (item 5).
- 4) Secure all locking levers or pins in their proper fully locked position.
- 5) Connect two hydraulic hoses to the drive unit and then to the loader's auxiliary hydraulic system via proper quick couplers. (Is your hose length correct?)
- 6) You are now ready for operation.

CARRY POSITION: Roll back and lower lift arms until the lowest edge of the auger is 18 to 24 inches above the ground. Transport the auger unit at a slow speed and without rapid side to side movement.

REMOVING THE AUGER SETUP:

- 1) Roll the loader arms back and lower lift arms until the end of the auger just touches the ground.
- 2) Stop the engine, disconnect the hydraulic hoses, and release locking levers or pins.
- 3) Start the engine and move the loader backward while lowering lift arms all the way down.
- 4) Tilt the loader boom plate forward.

NOTE: As the operator faces the mounted assembly the hoses should exit the top front of the drive unit. If mounted improperly, damage to the hoses could occur.

Make sure the correct size pins are used to attach the various components, especially the auger.



WARNING: Avoid Tipping, Do Not Operate on Side Hills or Sloping Ground Where the Machine Does Not Have a Firm, Stable Base.

Do Not Connect Hoses Until Assembly is Properly Mounted and Secured.
 Never use a Bucket Clamping Device to Mount the Assembly to a Skid Loader.
 Make Certain all Connecting Levers and/or Pins are Properly Locked in Place.
 Carry the Assembly in Lowered Position at all Times. Avoid Excessive Swing.
 Tether Auger with Locking Chain When Transporting on a Swinging Boom (such as a Backhoe).
 Do Not Modify Equipment as Damage or Injury Could Occur.
 Failure to Follow Directions May Result in Unstable Operation and/or Serious Injury.

BACKHOES (AND CRANES)

- 1) Following backhoe manufacturer's instructions, remove the backhoe bucket (then disconnect bucket tilt cylinder hydraulic hoses if on a backhoe).
- 2) Assemble drive unit, auger bit, and TBH mounting and then install TBH connecting link in the end of the backhoe dipper arm.
- 3) Typically, you can "tap" into the bucket tilt cylinder hydraulic hoses for your hydraulic power. However, your backhoe dealer is in the best position to advise you as to the best location to attach the auger's hydraulic hoses.
- 4) It is important to follow the operating tips and safety instructions outlined in the previous section on Mounting for Skid Loaders. Never allow the auger to swing excessively either during transport or drilling operations.
- 5) Carry auger as low as practical and curbed as close to the loader as possible during transport on the job site. Completely disconnect and store in a safe, secured position when loader is being transported from jobsite to jobsite.

FRONT END LOADERS

- 1) There are a number of methods for mounting, ranging from removal of the bucket and using a special mounting bracket, to side mounting in a boom joint, to using a bucket clamping device. No matter what method is used, it is important to securely mount the auger and make certain that all pins, levers, bolts, and other locking devices are properly installed and maintained.
- 2) Your loader dealer is in the best position to advise you where to "tap" the system for your hydraulic power.
- 3) Follow the operating and safety steps outlined in the previous section on Mounting for Skid Loaders. Never allow the auger to swing excessively during transport or drilling operations.
- 4) Carry auger as low as practical during transport on the jobsite. Completely disconnect and store in a safe, secured position when the loader is being transported from jobsite to jobsite.

VI OPERATION

LOWE® Auger Drive Units are designed to be mounted on a machine with suitable hydraulic capacity. By means of two hydraulic hoses attached to your machine's hydraulic system, you are able to dig holes in a variety of soil conditions.

The flow and pressure should be measured at the point where the unit is to be mounted. Most important in a drilling operation is the amount of output torque your drive unit develops. As a general rule of thumb, gallonage determines turning speed while hydraulic pressure determines torque. LOWE® augers are designed with torque being the primary function for typical drilling applications.

DIGGING WITH THE AUGER

Caution: Do Not engage auger rotation unless the point of the auger cutting head is touching the ground. The auger should turn in a clockwise direction for digging.

Operating an attachment auger can be made simpler by following a few simple guidelines:

- 1) Carry the auger low to the ground when traveling between drilling positions.
- 2) Position yourself and the loader as much as possible on the uphill side of the hole. Your machine balance and down force will be greatly improved.
- 3) Do not try to run the loader arms, auger rotation, and other functions all at once. Instead, isolate each function.
 - a) On a skid loader, a typical method would be to:
 - 1) Lift boom and then tilt loader bucket cylinder to full extension.
 - 2) Position tip of auger at the center of the intended hole and touch the point to the ground.
 - 3) Run loader at about 65 to 75 percent power and engage auger rotation.
 - b) Use loader boom pedal to gently push rotating auger into ground. Ease up on down force if rotation stops.
 - c) As the hole is being dug, periodically adjust loader's position to assure a vertical hole. You may have to monitor the position of the tilt arms if your loader has a self-leveling bucket feature.
 - d) Once the hole is dug, gently pull auger out of the ground with no rotation and shake the spoil dirt off. If the auger is stuck, reverse rotation until it is free, then pull it out of the ground with no rotation.
 - e) Dip the auger back into the hole to pick up spoil dirt that may have fallen into the hole, then repeat step F.
 - f) Raise the auger out of the hole and roll tilt arms into low carry position. Watch for people and obstructions, then go to the next hole site.
- 4) In hard or frozen ground it may be wise to slow the rotation speed to allow the teeth time to penetrate the soil.
- 5) Remember that torque and down force are the two most important items in digging hard-to-penetrate conditions. Hard rock is best left to the premium high pressure truck drill rigs or to other methods of rock excavation.

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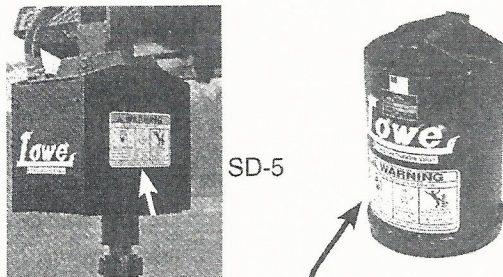


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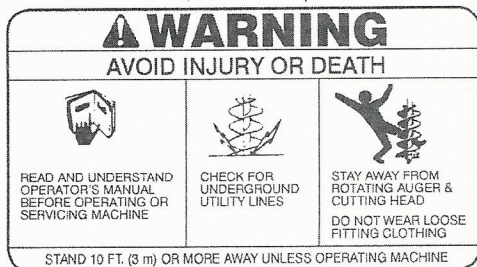
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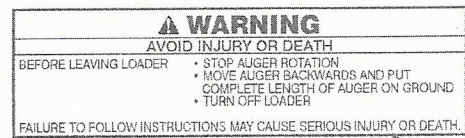
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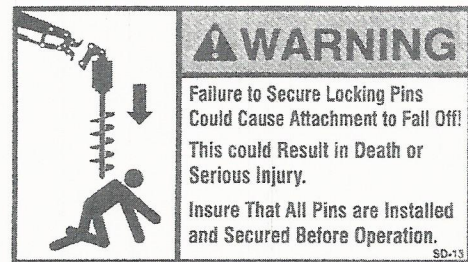


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