

Safety Information

Morbark considers operator safety a critical design feature and strives to build safe machines. However, machine safety also depends on the operator. Operators must understand and follow proper jobsite safety practices and the procedures recommended by Morbark in the owners manual and on the instructions and warnings located on the machine. The following information highlights several safety procedures recommended by Morbark for all our heavy duty hand-fed brush chippers.

The information is divided into four safety categories: 1) Proper Clothing and Protective Equipment 2) Pre Start-Up Procedures 3) Chipper Operation Safety and 4) Chipper Maintenance and Care Safety.

Proper Clothing and Protective Equipment: Every operator should wear proper clothing and protective equipment on the job.

- Clothing should be close fitting and tucked in. Operator's should not wear loose fitting clothing like scarves and untucked or unbuttoned shirts and jackets, and pants with cuffs which could get caught on brush while they're chipping.
- A hard hat and ear protection are required.
- Eye protection is also required. All eye protection must be OSHA approved and may consist of glasses, goggles or a flip down visor that may be plastic or mesh.
- Operators must wear a sturdy pair of work pants and a good pair of hard-toe work boots with non-slip soles.
- Gloves are recommended to protect the operators' hands, but gauntlet style gloves should never be worn, again due to the possibility of snagging on wood being chipped.
- Operators must avoid wearing any kind of jewelry such as earrings, rings, watches or necklaces that could present a safety hazard.
- Operators must always remove their saddlebag, body belt or harness before operating the chipper.

Pre Start-Up Procedures: Before chipping brush, operators should read and understand all safety information in the operator's manual provided with their chipper.

- Operators should understand all decals on the chipper and never remove them. If the decals are frayed or worn, they should be replaced.
- To attach a chipper for towing, operator's should:
 1. Inspect the hitch before hooking up to the tow vehicle.
 2. Determine if the lunette ring is worn and replace it if it is.
 3. Make sure the hook is latched and the safety chains are attached properly.
 4. Hook the chains to the vehicle by crossing the chains under the tongue, allowing enough slack to avoid binding when making turns.
 5. Make sure the jack is raised and then attach electrical connectors to the towing vehicle.

- 6. Check air tire pressure.
- 7. Make sure the chipper is level for towing.
- When chipper arrives at site, never set up the chipper under the tree to be pruned, cut or worked on, and whenever possible, the chipper should be set up on level ground.
- If a machine is hitched to a vehicle, make sure the hitch is secure and the safety chain is properly attached. If it isn't hitched to a vehicle, make sure the tongue is blocked.
- Wheel chocks should be placed under both wheels to keep the chipper from moving.
- Operator should do a pre-start walk around inspection of the machine each day before it is used, checking the following:
 1. nuts, bolts and belts to make sure they are tight
 2. infeed, to make sure nothing is obstructing the opening
 3. hydraulic hoses for loose fittings or leaks, making sure the hoses aren't frayed
 4. hydraulic fittings and functions
 5. all fluid levels, including engine oil, radiator fluid, hydraulic oil and fuel to make sure they are at appropriate levels.
- Always remove the ignition key before servicing the chipper.
- Check knives for sharpness and cracks. When performing knife maintenance, always wear proper gloves and use lock pins or drum wedges where they apply. Open the chipper hood, roll the drum or disk to inspect the knives and when finished, close the hood, put the pin in place, making sure it is secured properly.
- Check the function of the safety bar to be sure it moves properly to forward, reverse and neutral.
- Make sure the discharge chute is pointed in the proper direction, away from buildings, by-standers and operators.

Chipper Operation Safety: Safe operation of the chipper is crucial.

- Brush for the chipper should be stacked in a way that makes it easy and convenient for the operator to feed the chipper. The butt-ends of the brush should face the chipper infeed. Place the brush stacks at a good distance from the chipper to allow the operator a clear path.
- Before starting the chipper, make sure the clutch is disengaged, the safety control bar is in neutral, all personnel are clear of the machine and the chip discharge chute is pointed in a safe direction.
- When starting the machine, always idle the engine to warm it up, engage the clutch and then raise the engine RPM to full throttle. Operator should always make sure the chipper is at full throttle when chipping to insure proper discharge of material and to avoid plugging problems.
- Operators should never operate the machine while under the influence of drugs or alcohol or while taking medication that may impair the operator's ability to concentrate.
- Feed the brush into the chipper butt-end first.

- The operator should never, under any circumstances, place their feet or hands in the infeed chute while the machine is running. An operator should never, for any reason, kick brush in with their feet. To safely feed short material, always lay the short material on top of longer material that is feeding.
- Never attempt to feed handfuls of twigs, leaves and other material that has been raked up. This material should be placed in the chip van or chip pile directly. Not only is it dangerous to feed the material, but it can contain rocks, metal and other material that can damage the chipper.
- Always examine the brush pile for foreign objects before chipping.
- Remove the ignition key when the machine is left unattended.
- Have a first-aid kit on-site, along with a fire extinguisher.

Chipper Maintenance and Care Safety: Maintenance is key to keeping the Morbark chipper in excellent condition. As important as maintenance upkeep is to the chipper, it is equally important to perform all maintenance in a safe manner.

- Never attempt to unclog a chipper or perform any type of maintenance while the chipper is running.
- Before performing any maintenance, turn off the engine and remove the ignition key.
- Let the disk or drum come to a complete stop before opening the chipper housing. The chipper disk or drum will coast for several minutes after the machine is shut off. The operator can determine that the disc or drum has stopped by viewing the chipper bearings for rotation.
- Once it has stopped coasting, make sure all locking devices are in their proper place before performing maintenance, in particular the disk or drum lock pin and the feed-wheel lock pin, if access through the feed system is required.
- Morbark recommends a torque wrench be used during maintenance to assure that bolts are at their proper tightness.
- When refueling, make sure there is no open flame or source of a spark in the vicinity of the machine.