

# Mini Excavator Tree Digging Blade

## User Manual



Read Carefully Before Use  
Keep for Future Reference

### Safety Information

# Safety Information

## Symbol Guide

The following symbols and safety signal words are used in this manual. **DO** obey the accompanying messages to avoid possible injury or death.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.



Indicates practices or situations which may result in the malfunction of, or damage to equipment.

## General Safety

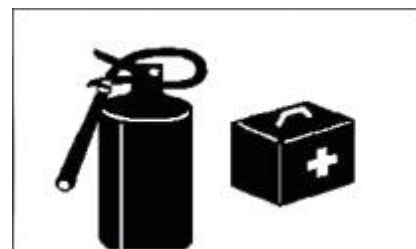
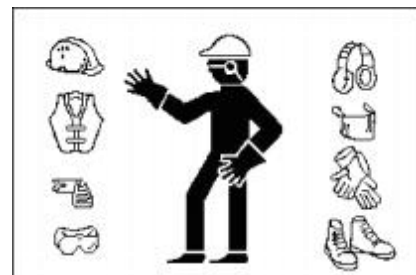
### **Danger**

- **ALWAYS** follow federal, state, and local laws, codes, and regulations concerning the use of construction machinery.
- Follow all other applicable instructions and precautions as stated in your excavator's manual.
- Read this manual before actually attaching this tree digging blade to your compatible excavator. Familiarize yourself with the instructions that provide crucial information on the installation, operation, and maintenance.
- **ONLY** use with compatible excavator models. Though this tree digging blade has a wide fitment, **DO** research compatibility before actually mounting this tree digging blade. For details, see **Specifications**.
- **DO NOT** operate, inspect, or maintain the excavator when your faculties or judgment are impaired by alcohol, drugs, medicines, fatigue, or lack of sleep. **NEVER** allow any persons under such conditions to operate, inspect, or maintain this heavy machinery.
- Operating heavy equipment requires your full attention. Avoid distractions and remain focused on the task at hand.
- **IMMEDIATELY** cease to use and contact Customer Service if the tree digging blade shows any sign of anomalies or malfunctions, say noise, vibration, breakage, etc. **NEVER** attempt to resume use if the issues remain unsolved.

## Personal Safety

### Warning

- **DO NOT** wear loose clothes or accessories that may get caught into the moving parts of your excavator in operation. Wear clothes that are oil-repellent. Replace them if grim or grease has started to build up. Fabrics coated or soaked with grim can burn in proximity to heated machinery.
- **ALWAYS** use personal protective equipment (PPE) suitable to your task. Always wear ANSI and OSHA-approved eye, breathing, and hand protection while using this product. Nonslip and steel-toe footwear is also highly recommended. Other equipment such as ear, head, and body protection may also be necessary depending on your work, work environment, and other equipment.
- **ALWAYS** keep a fire extinguisher and first-aid kit in an easily accessible place. Familiarize yourself with the protocols for using the first-aid kit and operating the fire extinguisher. Ensure that you provide training to other individuals who will be operating the excavator. This ensures that everyone is prepared to handle potential emergencies effectively.
- Display the contact details of the nearest Emergency Room (ER) prominently in the operator's area. Make sure that all personnel operating the excavator are well-informed about this information.
- Keep your hands and feet away from the moving components and attachment.



## 1.4 Operational Safety

### Danger

- **ALWAYS** remain focused on the task at hand. Operating heavy equipment requires your full attention.
- **ONLY** operate the tree digging blade from the excavator's cabin.
- **ONLY** use this blade to dig and lift the tree seedlings.
- Use two or more persons to attach the blade to the excavator's arm.
- **NEVER** operate the excavator in an area with people present. You should maintain at least 100 yards of distance between the blade and people, animals, or property.
- **DO NOT** use the blade as a hoist. The blade is not intended to lift an object. To do so may cause the excavator to turn over.
- Be extremely careful when working on inclines or near loose fill, rocks, and holes as they can cause tipping or upsetting which may result in serious injury or death.

- Be certain to avoid overhead electrical wires when operating the excavator. Contact with power lines may cause serious injury or death.
- **NEVER** lift heavy objects above the excavator's cabin or over or across any personnel on the work site.

### **Warning**

- **DO NOT** drop the blade rapidly toward an object. Sudden impact may result in structural failure and possible serious injury or death.
- **NEVER** suddenly stop when lowering or lifting the excavator boom to prevent loss of control over the machine and/or load, which may result in serious injury or death.
- **DO NOT** operate underwater. Do not allow the excavator's cylinder to go underwater. Otherwise, the cylinder **WILL** be damaged from chronic rust.
- **DO NOT** dismount from a moving excavator with this blade or leave the excavator with this blade unattended with the engine running.

Stop the excavator, place all the control rods in neutral, set the parking brake, shut off the engine, and make sure **ALL** moving parts have been stopped before dismounting the excavator for any reason.

- Keep all bystanders away from the work area, especially children.
- Transport the excavator with the blade at the slowest speed possible, and with the excavator boom at the lowest position to avoid tipping or upsetting, which may result in serious injury or death.

## Maintenance Safety

### **Warning**

- **ALWAYS** lower the attachment to the ground and shut off the engine before any maintenance.
- Wear personal protective equipment (PPE) appropriate and adequate for the work at all times.
- **ONLY** use the recommended lubricant for the blade. For the specific type, see Maintenance.
- **DO NOT** make any alterations to the blade.

# Specifications

<p><b>Blade Size</b></p>		
<p><b>Hinge Pin</b></p>	<p><b>Length (with Nut)</b></p>	<p>6.8 in. (172 mm)</p>
	<p><b>Length (without Nut)</b></p>	<p>6.2 in. (158 mm)</p>
	<p><b>Diameter</b></p>	<p>0.98 in. (25 mm)</p>
<p><b>Hinge Pin Hole Spacing</b></p>		
<p><b>Total Dimensions</b></p>		
<p><b>Net Weight</b></p>		<p>50.3 lb. (22.8 kg)</p>

# Product Diagram



## Installation

### Warning

- **ALWAYS** use personal protective equipment (PPE) suitable to your task. Always wear ANSI and OSHA-approved eye, breathing, and hand protection, such as goggles and work gloves. Nonslip and steel-toe footwear is also highly recommended. Other equipment such as ear, head, and body protection may also be necessary depending on your work, work environment, and other equipment.
- **ONLY** mount the blade with the help of more than 2 persons or with the assistance of a working, easily controllable, and reliable hoist. Doing it alone risks serious personal injuries.
- Keep your fingers clear of possible pinching points while mounting the blade.

### Tools Needed:

- Adjustable Wrench
- Hammer

# Removing the Current Attachment

**Note:** This chapter only provides general guidance on the excavator's current attachment removal. For more specific information, refer to your excavator's manual or your attachment's manual.

1. Start the engine of the excavator following the normal protocols.
2. Park the excavator on level ground as shown, with the boom horizontal, the arm vertical, and lowering the attachment to the ground.

Attachment

Boom

3. Shut off the engine.
4. Wait until the engine and hydraulic system have cooled to ambient temperature.
5. Remove the nuts from the two pins connecting the attachment



6. Tap out the pins with a hammer, keeping them clean.
7. Start the engine, raise the boom, and remove the current attachment.

## Attaching the Blade

1. Remove the preinstalled hinge pins and their nuts on the tree digging blade.
2. Use 2 or more people or a hoist to stand the blade up on a level surface.
3. Start the engine of the excavator following the normal protocols.
4. Drive the excavator to the rear of the blade.
5. Align the hinge pin holes on the blade with the ones on the bottom of the excavator arm by moving the boom and arm.
6. Shut off the engine.
7. Insert the removed hinge pins through the holes and secure the pins with their removed nuts.



8. Restart the engine and test the blade by performing light digging operations to confirm its stability.



# Operation

 **Warning**

- **NEVER** allow anyone to operate the blade until they have carefully read and understood this manual.
- Before operating, carefully check for hazards and obstructions.
- Keep all bystanders away from the work area, especially children.

1. Position the blade level to the ground.
2. Drive your excavator close to the target tree seedling.
3. Adjust the excavator's boom and arm positions to position the target tree seedling at the center of the blade.
4. Lower the blade to the ground.
5. Angle the blade to dig into the soil beneath the tree seedling and hold the roots of the seedling.
6. Lift the blade to remove the whole tree seedling.

# Maintenance

 **Danger**

**ALWAYS** lower the blade to the ground and shut off the engine before any maintenance.

 **Warning**

**ALWAYS** wear PPE appropriate and adequate for maintenance.

- Periodically clean the blade, removing all mud and dirt.
- Lubricate the hinge pins with lithium grease every 10 hours of continuous operation. Shorten the schedule if the pins become unusually squeaky.
- Apply a light coating of oil to all exposed metal parts to prohibit corrosion.
- Periodically check the fasteners, retightening as needed.
- Repaint parts where paint is worn or scratched to prevent rust.
- Inspect for visible signs of wear, breakage, or damage. Replace or repair damaged components.
- Dispose of the used material and waste products from the replacement appropriately.
- Store this blade in a safe and secure place away from direct sunlight and inaccessible to children.