



**UNC**  
ENVIRONMENT,  
HEALTH & SAFETY

# Job Safety Analysis

Safety Information for The University of North Carolina at Chapel Hill

All UNC Shops

**JOB SAFETY ANALYSIS TOPIC:**

## TORO Backhoe for Compact Utility Loaders



Title	Work Task	Hazards	Controls
<b>Pre plan the work</b>	<ol style="list-style-type: none"> <li>1. Assess the equipment for damaged parts or wires</li> <li>2. Assess the work area</li> <li>3. Locate and mark underground utilities</li> <li>4. Select proper gloves, goggles, steel toe shoes, and back brace</li> </ol>	<ul style="list-style-type: none"> <li>• Electrical</li> <li>• Mechanical</li> <li>• Mechanical failure</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative               <ul style="list-style-type: none"> <li>○ Review TORO manual and visually inspect</li> <li>○ Check equipment before use for any loose items</li> <li>○ Training on use of Toro Compact Utility Loaders</li> <li>○ PPE training</li> <li>○ Ensure to use the safety check list before operating equipment</li> <li>○ Review work area plans, maps, utility maps</li> </ul> </li> </ul>
<b>Before the job</b>	<ol style="list-style-type: none"> <li>5. Don PPE</li> <li>6. Set seat into proper position</li> </ol>	<ul style="list-style-type: none"> <li>• Ergonomics</li> <li>• Struck Against</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative               <ul style="list-style-type: none"> <li>○ Keep your fingers away from the seat mounting bracket when moving the seat up and down and when lowering the seat into position.</li> </ul> </li> <li>• PPE               <ul style="list-style-type: none"> <li>○ Gloves, goggles, steel toe shoes</li> </ul> </li> </ul>
<b>Setting up the equipment</b>	<ol style="list-style-type: none"> <li>7. Install the counterweight on the traction unit</li> <li>8. Install the links between the backhoe and the tilt cylinder pin on the traction unit</li> <li>9. Install the side bars between the backhoe and the traction unit frame</li> </ol>	<ul style="list-style-type: none"> <li>• Ergonomics</li> <li>• Mechanical</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative               <ul style="list-style-type: none"> <li>○ Training on lifting techniques</li> <li>○ Training on use of Toro Compact Utility Loaders including review of user manual to ensure proper use</li> </ul> </li> <li>• PPE               <ul style="list-style-type: none"> <li>○ Back brace</li> </ul> </li> </ul>

	10. Install the hydraulics lever clamp over the traction unit controls 11. Lower the stabilizer arms before digging		
<b>Performing the work</b>	12. Operate the backhoe from the backhoe seat 13. Move the traction unit from the traction unit operator's position and not from the seat of the backhoe 14. Do not dig outside of barricaded work zone	<ul style="list-style-type: none"> <li>• Mechanical</li> <li>• Struck against</li> <li>• Slip, Trip, Fall</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative             <ul style="list-style-type: none"> <li>○ Training on use of Toro Compact Utility Loaders including review of user manual to ensure proper use</li> <li>○ Follow safe work practices when choosing where and when to dig</li> </ul> </li> </ul>
<b>After the Job</b>	15. Install the pins to secure the boom from moving up and down and side to side. Do this before leaving the backhoe unattended, transporting it, or disconnecting it from the traction unit	<ul style="list-style-type: none"> <li>• Ergonomic</li> </ul>	<ul style="list-style-type: none"> <li>• Administrative             <ul style="list-style-type: none"> <li>○ Training on lifting techniques</li> <li>○ Training on use of Toro Compact Utility Loaders including review of user manual to ensure proper use</li> </ul> </li> <li>• PPE             <ul style="list-style-type: none"> <li>○ Back brace</li> </ul> </li> </ul>

<b>Training</b>	Employees must receive training on this JSA, PPE, and a hands-on training of Compact Utility Loaders. EHS website at <a href="https://ehs.unc.edu/training/self-study/">https://ehs.unc.edu/training/self-study/</a>	Supervisor is responsible for ensuring the employee reviews the JSA and the EHS website guidelines. .
<b>Created</b>	Taylor Moore, January 2, 2020	
<b>Referenced Material</b>	EHS Website; <a href="https://www.toro.com/getpub/31728">https://www.toro.com/getpub/31728</a>	

**Contact Info**

For more information about this JSA and other JSAs, contact:  
*Department of Environment, Health and Safety*  
UNC-CH, 1120 Estes Drive Extension, Chapel Hill NC 27599 CB# 1650  
(919) 962-5507    <https://ehs.unc.edu/>



**UNC**  
ENVIRONMENT,  
HEALTH & SAFETY