



## Landscape Services

# Safety Standard Operating Procedure

(Revised 1/2023)

### **Backhoe, loader, and excavator safety**

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This SSOP provides guidance on the safe use of Backhoe, loader, and excavator equipment used in landscaping, construction, and agricultural operations. As with any equipment or tools, the most basic premise for safe operation is reading and adhering to the manufacturer's instructions and warnings. This SSOP is not a substitute for the owner's manual produced by the manufacturer.

**Schedule:** Daily for assignments that require excavation.

**PPE Requirements:** Hard hat, high vis safety vest, ear plugs, safety glasses, warning signage, pants, closed toe shoes

**Safety Requirements:** Follow all OKIE 811 dig policies, take pictures of area before excavating, spotter/ground hand, barricades, watch surroundings, lock put/ tag out, daily equipment inspection,

**Safety Hazards:** Vehicle and pedestrian traffic, Underground and overhead Utilities, lifting, bending, overhead objects, dust, noise, sharp objects, blind spots, equipment malfunction, pinch points, hot or cold temperatures, and inclement weather.

### **Backhoe and excavator**

Backhoes and Mini Excavators are hydraulic driven machines that are very heavy in weight and have limited visibility. Anyone working with or around these machines needs to be aware of safety concerns and limitations of the machine and operator.

#### **Pre Inspection**

1. Always conduct a walk-around inspection.
2. Check for leaks and hose damage
3. Check tire pressure /or tracks for damage
4. Check all fluids every 8 hours of operation.
5. Grease machine every 8 hours of operation
6. Inspect machine for any visual damage

7. Check the service tag. Make sure the machine has been serviced regularly. (Service reminder is located by the hour meter. Both are serviced every 300 hours of operation.)
8. Make sure the seat belt works properly. All ROPS equipped equipment have seat belts.
9. Keep windows clean. Know your blind spots and take extra precautions.

## Job site inspection

- Are Utilities lines marked? Look for indications of utilities, such as valves in the area.
- Survey surroundings and operating conditions
- Size up the job site- How to enter and leave without damaging ground that can be prevented. ( will ground protection be required to prevent damage)
- What machinery should be used for the job?
- Jobsite should be blocked off before work begins. (barricades and detour signs may be required.)



## Ground worker

- Make sure dig permits are in date and lines are marked. Look for signs such as valve boxes to see if utilities are present. A copy of the dig permit must be in any machinery on the job.
- Look for irrigation heads and boxes in the area before digging. Irrigation personnel may need to be called to locate their lines.
- Always wear PPE. **HARD HAT**, high vis vest, and safety glasses. Make sure you are visible to the operator.
- Communicate hand signals with the operator before work begins
- Stay visible to the operator.
- During digging watch for any signs of utilities, Cut tape, and change in soil color or type. ( Clay/sand)
- Hand digging is required to spot lines or debris in the ground to prevent damage. You must visually see the item to identify what it is. Mark that side of the item on the closest side to the machine. Communicate with the operator what it is, what side is marked, and the direction it is running.
- Make sure to give proper guidance to the operator since they cannot see what you are looking at.



**No Go Zone-** These are areas in which a person can be struck, pinched, or crushed by the machine. Know the swing width and reach of the boom. Do not stand close enough for the boom or bucket to hit you if the operator over swings. The pinch area is any point in which the machine moves.

Such as the in between the boom and back of the machine. Do not approach the machine until after communication has been established between your and the operator. The bucket needs to be placed on the ground and operators hands removed from the controls.

## Operator-Jobsite

- Look at the area of work. Know the manufacturer limits to the machine.
- Look overhead for utility lines or anything that could be hit during operation. You cannot see above the machine while in the seat.
- Only operate the machine from the seat.
- Make sure locates/ dig permits are up to date and a copy is on the machine.
- Check area for utility lines before digging. (Not Sure, Ask)
- If a utility line is hit, all work must stop and the company/ owner of that utility needs to be contacted. If a gas line is hit shut down all engines and block off area. Fire department must be contacted as well.
- Operation should be slow, steady, and careful.
- Always know where the ground crew is. If they are to close, set the boom on the ground, idle down the machine, and wait for them to be out of the work area.
- Communicate hand signals with ground crew before starting operation.
- Do not dig under trees. Check with Supervisor to make sure tree protection is in place if needed.
- Make sure everyone in the area is wearing proper PPE before starting operation. **HARDHAT**, high visibility vest and safety glasses are required.
- Stabilizers should be set firmly, Make sure they are not placed on a utility box, shrub, or edge of concrete. The rubber pad should be down if you have to set them on concrete. Do not lift the machine up high. This causes a greater chance of tip hazard. Outriggers are designed to stabilize by not allowing the wheels to roll and leveling the machine to dig straight. Loaders should be placed on the ground flat. Do not place it with the cutting edge down.
- Mini Excavators have a backfill blade on the forward side of the machine. This is also used as a stabilizer. Put the blade on the side of the machine your digging on.
- Be cautious when turning on pavement/brick to not leave marks. Making longer turns will reduce the chance of scarring or marking pavement. This is also the same when turning on sod.
- Do not drive a machine on sod if avoidable. Eliminate unneeded ground repairs.
- Do not block handicap entrances or ramps. Look at how you need to set the machine to perform the job.
- Do not block entrances into buildings. Pedestrian traffic needs to be able to move freely.
- Make sure work area is properly blocked off. Barricades need to be used.
- Ground protection will need to be used on some concrete and all sod areas.
- Loader float mode needs to be turned off when carrying or loading material with loader.



## **Safety standards from OSHA Website**

- Make sure boom and swing locks are in place for driving on the road.
- Never drive with loader raised above what is need to clear the ground. The loader being too high cause the machine to be unstable and can tip easier.
- Locate overhead and underground utility lines before beginning work. Avoid working near overhead power lines. If you must work near them, develop a plan to avoid contact.
- Operate hydraulic excavators or backhoes only on grades specified by the manufacturer.
- Position machinery at a safe distance from excavations and trenches.
- Identify and label all machine controls and ensure they are working properly.
- Securely latch attachments, such as quick disconnect buckets, before work begins.
- Conduct visual and operational checks on all machine systems and operating controls before use.
- Make frequent visual inspections of quick disconnect systems, especially after changing attachments.
- Use the rollover protection system (ROPS) and seat belts supplied by the manufacturer.
- Do not exceed load capacities when lifting materials.
- Lower the boom to a safe position with the bucket on the ground and turn off the machine before stepping off for any reason.
- Lower the boom to a safe position with the bucket on the ground and turn off the machine before stepping off for any reason.
- Make all workers on the site aware of the machines' established swing areas and blind spots before the operator works the machine.
- Before each work shift begins, review and confirm communication signals between machine operators and workers on foot.
- Keep workers outside the hydraulic excavator swing areas and clear of attachments when using the machines for hoisting materials.
- Do not allow workers to stand under suspended loads or suspended machine components such as the boom, arm, or bucket.
- Use spotters or signal persons around operating equipment when necessary.
- All Ground workers must wear hardhat and high visibility vest when working around equipment.