



BACKHOE OPERATION BEST PRACTICES **for Supervisory Personnel and Operators**

Best Practices for Supervisory Personnel

PRE-OPERATION

- Review the operator manual for unique operational/equipment requirements.
- Ensure there is an appropriate Emergency Action Plan to protect employees in case of fires, electric storms, hurricanes, tornadoes. Ensure that your plan is site specific for each job to include medical and first aid and is communicated to employees.
- Ensure there is a Trenching and Excavation Program to include inspection of excavation, adjacent areas, and protective systems (when and how to use) and is communicated to employees. Ensure that personnel have required training.
- Do a JSA (Job Safety Analysis) and communicate with your working team to ensure that all safety concerns are discussed and task responsibilities are defined.
- Designate a competent person. Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees and who has authorization to take prompt corrective measures to eliminate them.
- Ensure availability and use of appropriate personal protective equipment (PPE) for the tasks being performed as required per company policy and OSHA regulations.

OPERATION

- Only qualified personnel shall operate equipment. A qualified person who by extensive knowledge, skills, training or by experience has demonstrated their ability to operate the equipment.
- Verify that the One Call has been made and that utilities are marked and depth verified before the commencement of digging activities.
- Ensure there is a competent person on site whenever employees are working in an excavation.
- Ensure OSHA required separation distances between backhoe and power lines are maintained; use a spotter for hard to see separation distances, and for all other utility installations or tight conditions.
 1. For voltages to ground 50kV or less = 10 feet
 2. For voltages to ground over 50kV = 10 feet plus 4 inches for every 10kV over 50kV.
- Ensure that bucket teeth have been barred when digging around exposed underground utilities. All utilities shall be confirmed before the use of mechanical equipment.
- Mats shall be used on soft ground, wet lands, and at other times when needed.
- Verify that sufficient room is available to keep spoil pile at least 2 feet from the edge.
- Ensure proper communication clearly indicating that all unnecessary personnel are prohibited from entering the work area.
- Ensure that hand signals are given by one person and understood by all personnel on site.

POST OPERATION

- Verify equipment is properly parked, parking brake set, and chock and block where needed.

Best Practices for Operators

PRE-OPERATION

- Read, understand, and follow the operator's manual. Only qualified personnel shall operate equipment.
- Wear appropriate PPE as required by the task being performed as required by company policy, and OSHA regulations.
- When refueling, bond the supply tank with the fuel tank to prevent static discharge and possible fire.
- Conduct a walk around inspection *checking* all fluids and noting any items needing maintenance and repair. Ensure all critical repairs are performed before operation.
- Under no load perform a pre-operation function check to verify proper operation of equipment including verification of back up alarm.
- Make sure all warning labels are legible. Those not legible must be cleaned or replaced.
- Ensure that bucket teeth are barred if working around underground utilities. All utilities shall be located by hand before the use of backhoe.
- Verify that any attachments that have the quick couplers are properly connected to prevent accidental disconnect which could cause injury or death to personnel.
- Remove debris and clutter in the cab that would prevent safe operation.
- Use 3 points of contact to enter the machine.
- Get on the machine only at locations that have steps and/or handholds. If the machine does not have these, advise your supervisor immediately.
- Do not use any controls as handholds when entering or exiting the operator compartment.
- If available the seat belt shall be worn while operating the piece of equipment.

OPERATION

- Verify that the One Call has been made and that utilities are marked and depth verified before the commencement of digging activities.
- No personnel shall be under the bucket or the backhoe while it is being raised or lowered.

- When the equipment is in operation, the doors (when installed) must be *closed or secured by latch in the open position*.
- Travel on steep grade shall be straight up and down vs. sideways. Follow manufacturer's recommendations.
- When necessary to park on a grade, do so according to the manufacturer's recommendations.
- Verify that the machine is level with stabilizing feet and the front bucket down when digging.
- Equipment shall be kept as far away as practical from the side of excavation.
- Verify that sufficient room is available to keep spoil pile at least 2 feet from side.
- If the operator leaves the seat of the equipment, the hydraulics shall be lowered to the ground, parking brake set, chock and block if necessary and turn the machine off.
- All unnecessary personnel shall be prohibited from the work area.
- Hand signals shall be given by one person and must be understood by all personnel on site.
- When moving a load, proper rigging and lifting and techniques shall be used.
- No riders shall be permitted and no personnel shall be lifted or carried in the bucket.
- Do not operate this piece of equipment during stormy conditions. Seek shelter according to the company's Emergency Action Plan.

POST OPERATION

- Park, set parking brake, chock and block as necessary.
- Lower the hydraulics.
- Shut engine off, remove key, lock doors and engage security system (if available).
- Use 3 points of contact to exit the machine.

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