



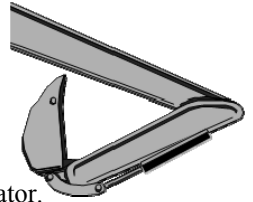
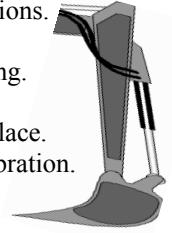
Company Name: \_\_\_\_\_ Job Site Location: \_\_\_\_\_

Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ Foreman/Supervisor: \_\_\_\_\_

### **Topic 80: Mini Excavators**

**Introduction:** Mini excavators are versatile and available in many compact sizes. The machine you operate needs to be compatible to the area, the site condition, and the restrictions that apply to movement. The size of the attachments needs to be appropriately matched to the size of the compact excavator. Following are safety guidelines to ensure safe mini excavator operations:

- **Read** and understand the manufacturer’s manual. Each machine has different safety components and operating procedures.
- **Operators** should be trained in the proper operations and maintenance of the excavator they will use.
- **Do** a walk around inspection of all moving parts. Look for cracks, defects, and damage. Improperly working parts can create unsafe working conditions. Repair or replace immediately. Ensure the safety pins are engaged at all times during operations.
- **Do not** attempt to modify the coupler or the machinery onto which it is intended to be attached. Modification can cause serious injury to personnel involved in working with or in close proximity to the machine. Always use the lifting eye provided.
- **Inspect** the hydraulic lines for leaks. Use paper or cardboard to check. Repair or replace leaking or damaged fittings and hoses before operating the machine. Hydraulic hoses enclosed in nylon sheaths are for burst protection and abrasion resistance.
- **Always** get to know your machines controls and hydraulics before operating in tight areas. Control levers must be fully functional.
- **Inspect** the throttle, utility power outlet, and vents for heating, cooling, and defrosting when the cab is enclosed.
- **Make sure** the cab rotates freely and the boom pivots on command. When an operator is comfortable in the cab, the job performance is better. Make sure the push blade is working properly. Blades provide stability. Do not hit the blade with the bucket.
- **Inspect** the bucket, hammer, swivel, shear, crusher, or thumb depending on which attachment is being used. Check fasteners, bolts, pins, etc. Check for wear and damage. Repair or replace when necessary.
- **Always** know the limits of the machine. Muddy conditions may not be accessible to your mini excavator. Inspect the site and evaluate the working conditions. Inspect the tracks for wear and damage. Repair or replace before beginning operations.
- **Mini excavators** have a tight or zero tail swing. Know the limits. Counter weights improve lifting performance.
- **Make sure** the lockout system (that shuts the engine off when a worker is entering or exiting the machine) is working.
- **Always** wear a seat belt. Retractable belts will provide greater comfort and safety.
- **Never** remove any guards. When performing maintenance, always remember to put the guard back into its proper place.
- **When** the engine compartment has a guard, check the fasteners for excessive loosening caused by the machine’s vibration.
- **Check** the fan guard. Tighten any loose fasteners. Ensure the positive terminal electrical covers are in place.
- **Make sure** warning decals are in place and readable. Replace with new ones immediately.
- **Excavators** should have slip-resistant steps which will give the operator a firm footing when entering and exiting the machine.
- **Make sure** the back-up and/or travel alarm is working. If the alarm is not working there should be a signal person directing traffic.
- **Before** digging into the ground, locate all known utilities (electrical, gas, etc.). If in doubt, call the local utility to come out to the site and identify the underground locations of the lines.
- **Place** barricades or tape around heavily trafficked areas. Make sure a fire extinguisher is available.
- **When** in tight areas (between walls, narrow walkways, etc.) check for proximity to electrical and gas lines.
- **When** working on slopes, do not let the machine tip over. Know your machines stability capabilities.
- **Lower** the digging arm (boom) before exiting. Never leave the machine running when unattended.
- **Park** the machine in a safe place. Mini excavators are a big toy to children.
- **Use** all safety precautions for hauling the machine. Trailers may need to be modified for securing the excavator.



**Personal protective equipment:** Always wear your hard hat. Ear plugs or ear muffs may be necessary. Wear safety glasses or goggles. Wear a dust mask when conditions are extremely dry or a lot of dust is blowing. Heavy-duty safety boots are recommended.

**Conclusion:** Know your mini excavator’s controls and abilities inside and out. Utilize all precautions before beginning operations.

#### **Work Site Review**

Work-Site Hazards and Safety Suggestions: \_\_\_\_\_

Personnel Safety Violations: \_\_\_\_\_

Material Safety Data Sheets Reviewed: \_\_\_\_\_ (Name of Chemical)

**Employee Signatures:** \_\_\_\_\_  
 (My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

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**Foreman/Supervisor’s Signature:** \_\_\_\_\_  
 These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.