

Electrician/Sr. Electrician

Ref. Code: E-E-1

MAINTAINING AND REPAIRING HYDRAULIC AND TRACTION PASSENGER AND FREIGHT ELEVATORS AND HANDICAP EQUIPMENT		
Activity	Hazard Identification	Required Precautions
1. Walking to and from work site.	1a. Back ache; overexertion from carrying heavy weight.	1a. Transport heavy equipment using hand trucks or in pickup truck with hydraulic lift. Know your weight limit and get help if needed. Lift using leg muscles. Keep back straight.
	1b. Slipping; tripping; getting knocked into by pedestrians.	1b. Stay alert. Wear boots with good treads. In wet or icy weather, walk on clear sidewalks.
2. Driving to and from work site.	2. Motor vehicle accident; striking pedestrians, bicyclists, or individuals using rollerblades.	2. Wear prescription lenses, if required, and seatbelt. Verify that all equipment on vehicle is secured properly. Stay alert for pedestrians, bicyclists, and individuals using rollerblades.
3. Using stepladder.	3. Ladder collapsing; slipping/falling from ladder; ladders with splinters and split legs.	3. Inspect ladder before use. Use ladder of proper height. Make sure ladder is properly assembled and locked and standing on level ground. Do not exceed weight limit for ladder. Do not stand on top of ladder or on top rung. Have coworker hold ladder.
4. Using extension ladder.	4. Ladder falling; slipping/falling from ladder.	4. Inspect ladder before use. Verify that ladder is properly assembled and that it is securely positioned on level ground. Use 1'-4' rule. Use OSHA decal to verify that ladder is in the proper position. A second person should be present to secure the ladder at the bottom and make sure the immediate area is safe.
5. Working inside faulty elevator.	5. Getting trapped in elevator.	5. Always have a two-way radio with you so that you can communicate your situation with others. If possible, have someone on the outside to assist you if necessary.
6. Working outside elevator.	6a. Falling down elevator shaft.	6a. Do not lean over too far. Have secure foothold or handhold.
	6b. Dismemberment due to faulty door lock.	6b. Make sure limbs are clear of hatchway.
	6c. Slipping due to grease on feet.	6c. Clean up any grease on the floor and wipe grease from shoes.

7. Working in shaft under elevator.	7a. Getting crushed if elevator drops.	7a. Shut off hydraulic line. Use stop button in the pit to prevent elevator from running. If you will be in the shaft for prolonged periods of time, have a person stationed at the door of the bottom landing in case you need help. If needed, use pugs to land elevator.
	7b. Electric shock; electrocution.	7b. Pump water, hydraulic fluid, or other liquids from work area before entering.
	7c. Slipping.	7c. Pump water, hydraulic fluids, or other liquids from work area before entering. Clean up any residual oil with Oil Dry, rags, or absorb pad. Clean off hands and feet before leaving pit area.
	7d. Inhalation of dust, cleaning chemicals, or fluids.	7d. Ventilate area by leaving door open and using fan. Wear respirator. Always have someone stationed at the opening when using chemicals. Be familiar with the Material Safety Data Sheet that comes with each chemical and follow the recommended procedures.
	7e. Illness due to absorption of cleaners, oil, chemicals, or stagnant water through skin.	7e. Wear gloves. If material does come into contact with skin, wash affected area immediately. Wash hands immediately after completing work.

	7f. Cuts or abrasions from glass and other trash.	7f. Wear gloves. Use shovel or other device to pick up garbage before beginning work.
	7g. Drowning if trapped under elevator and sprinkler head is knocked off, sprinkler system malfunctions, or mechanical room floods.	7g. Always allow a means of escape from the pit.
	7h. Dark work area.	7h. Replace burned out bulbs. Use flashlight or droplights, plugged into GFCI-protected outlets, as auxiliary lighting if necessary.
	7i. Seal or packing leaks or needs replacement.	7i. Call contractor.

8. Working on top of elevator.	8a. Being crushed.	8a. Be aware of your surroundings (moving belts, etc.) and of the location of the elevator. Use inspection station properly. If you are working with another person on top of the elevator, always communicate before moving elevator. Make sure it is VERY CLEAR what the other mechanic is doing, i.e., who is taking the lead.
	8b. Dismemberment.	8b. Be aware of your surroundings (moving belts, etc.) and of the location of the elevator. Know where your partner's limbs are, and always communicate before moving elevator. Make sure limbs are cleared before moving elevator.
	8c. Electric shock; electrocution.	8c. Turn off power if possible. Use properly insulated tools.
	8d. Falling from top of car.	8d. Know where all openings are. Maintain footing. Remove any debris and clean up any oil or standing fluids.

	8e. Slipping.	8e. Clean up any oil or water.
	8f. Inhalation of dust, cleaning chemicals, or fluids.	8f. Ventilate area by leaving door open and using fan. Wear respirator. Always have someone stationed at the opening and especially when using chemicals. Be familiar with the Material Safety data Sheet that comes with each chemical and follow the recommended procedures.
	8g. Illness due to absorption of cleaners, oil, chemicals, or stagnant water through skin.	8g. Wear gloves. If material does come into contact with skin, wash affected area immediately. Wash hands immediately after completing work.
	8h. Cuts or abrasions from glass and other trash.	8h. Wear gloves. Use shovel or other device to pick up garbage before beginning work.
	8i. Dark work area.	8i. Replace burned out bulbs. Use flashlights or droplights, plugged into GFCI-protected outlets, as auxiliary lighting if necessary.

9. Working in elevator equipment room.	9a. Severing of fingers in drive belt of pump motor.	9a. Turn off electrical power source before working on pump.
	9b. Electric shock; electrocution.	9b. Turn off power if possible. Use properly insulated tools.
	9c. Slipping.	9c. Clean up any oil or water from floor.
	9d. Inhalation of dust, cleaning chemicals, or fluids.	9d. Ventilate area by leaving door open and using fan. Wear respirator. Always have someone stationed at the opening especially when using chemicals. Be familiar with the Material Safety Data Sheet that comes with each chemical and follow the recommended procedures.
	9e. Illness due to absorption of cleaners, oil, chemicals, or stagnant water through skin.	9e. Wear gloves. If material does come into contact with skin, wash affected area immediately. Wash hands immediately after completing work.

	9f. Getting cut on parts or tools.	9f. Wear gloves. Use proper tools for job.
	9g. Heat exhaustion.	9g. Ventilate area if possible. Take breaks outside of elevator room when needed. Drink plenty of fluids to avoid dehydration. Maintain radio contact with others.
	9h. Getting burned on oil heater.	9h. Do not touch the heating element.
10. Using power tools such as band saw, saw all, hammer drill and other drills, and grinder.	10a. Electric shock; electrocution.	10a. Inspect cord before use. Keep power cord away from work area. Plug tools into GFCI-protected outlets. Do not use electric tools if work area is wet.
	10b. Fire hazard from working around flammable chemicals.	10b. Clean up any chemicals from work area before using power tools. Always have fire extinguisher nearby.
	10c. Tripping over or cutting power cord.	10c. Keep power cord away from work area.
	10d. Injury from flying bits of material.	10d. Wear safety glasses, and optionally, a dust mask, gloves, long-sleeve shirt and/or coveralls.

	10e. Drill or saw catching; drill bit breaking; severe lacerations or abrasions; dismemberment.	10e. Keep tools in good condition. Inspect tools before use. Verify that guards work properly. Keep hands away from blades. When using tools, make sure you have a good center of gravity and are properly balanced. Hold tools securely with two hands to maintain control.
11. Using hand tools.	11a. Electrocution.	11a. Make sure insulation on tools is in good condition.

	11b. Cuts, pinches, smashes, punctures, severing of fingers.	11b. Keep tools in good condition. Inspect tools before use. Wear safety glasses. Work away from yourself. Use normal caution required for all hand tools.
12. Working in confined spaces.	12a. Serious illness due to lack of oxygen or exposure to methane gas.	12a. Before working in confined area, verify that it is safe by monitoring air (get confined space permit as required). While working, always ventilate area using fan. Always have at least one person outside confined area to monitor safety of those working inside.
	12b. Dark work area.	12b. Replace burned out bulbs. Use flashlights or droplights, plugged into GFCI-protected outlets, as auxiliary lighting.
	12c. Working for long periods of time in cramped position can lead to backache or neck ache.	12c. Leave confined area frequently to stretch out.
13. Working in elevator mechanical room.	13a. Getting burned by hot oil.	13a. Wear proper protective clothing: gloves, safety glasses, long-sleeve shirt and/or coveralls. Be aware of your surroundings and of possible leaks.
	13b. Electric shock; electrocution.	13b. Always use GFCI protectors.
	13c. Slipping on water or oil on floor.	13c. Clean up any standing water or oil.
	13d. Excessively hot temperatures; heat exhaustion.	13d. Use a fan, plugged into GFCI-protected outlet, to ventilate work area. Take frequent breaks. Drink plenty of fluids to avoid dehydration. Maintain radio contact with others.
	13e. Loss of hearing.	13e. Wear ear plugs or ear muffs.

	13f. Tripping.	13f. Survey work area for hazards. Walk carefully.
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	13g. Inhalation of dust.	13g. Wear dust mask.
14. Lifting heavy weight.	14. Back strain; overexertion.	14. Know your weight-lifting capacity and get help if needed. Lift using leg muscles. Keep back straight. Use mechanical lifting equipment.
15. Working around moving equipment while on top of or under the elevator or in mechanical room.	15. Losing balance and falling into moving equipment; getting caught in equipment.	15. Shut off equipment around work area whenever possible. If you cannot shut off equipment, always have coworker nearby in case help is needed. Do not wear loose clothing, jewelry, or keys. Be aware of your surroundings and maintain an adequate distance from moving equipment. Work in a stable position to avoid losing your balance.
16. Working in a dusty area.	16. Inhalation of dust.	16. Wear dust mask. In confined spaces, wear respirator. Ventilate if possible.
17. working in area of pedestrian traffic.	17a. Pedestrians falling down open shaft; passengers trapped in elevator getting hurt while attempting to get out of stalled elevator.	17a. Use a second person and/or barricades to alert people to elevator problems. Take elevator out of service if possible. If not possible, then take doors out of service. Never allow public to use elevators if they are not working properly or if you are testing the elevator. If in doubt, take the elevator out of service. Make sure you remove all equipment (jumpers) after completing job.
	17b. Pedestrians tripping or slipping on power cords, oil, or tools.	17b. Keep tools and cords out of pedestrian walkways. Clean up any spills. Keep work area clean.