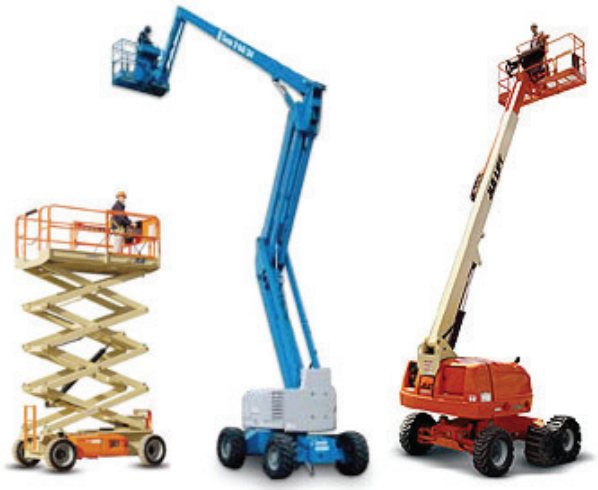
Minnesota Electrical Association

Electrical Toolbox Talks

Aerial Lifts

Aerial Lifts **include the following types of equipment**

- Extendable boom platforms
- Aerial ladders
- Articulating boom platforms
- Vertical towers
- Combination of any such devices



Hazards Associated with Aerial Lifts

- Fall from elevated level
- Objects falling from lifts
- Tip-Overs
- Ejections from lift platform
- Structural failures (collapses)
- Electric shock (electrocutions)
- Entanglement hazards
- Contact with objects
- Contact with ceilings and other overhead objects

Training

Only trained and authorized persons are allowed to operate an aerial lift. Training should include all of the following:

- Explanations of electrical, fall, and falling object hazards
- Procedures for dealing with hazards
- Recognizing and avoiding unsafe conditions in the work setting
- Instructions for correct operation of the life (include maximum intended load and load capacity)
- Demonstrations of the skills and knowledge needed to operate an aerial lift before operating it on the job
- When and how to perform inspections
- Manufacturer's requirements

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What to do Before Operating an Aerial Lift

Pre-Start Inspection

Prior to each work shift, conduct a pre-start inspection to verify that the equipment and all its components are in safe operating condition. Follow the manufacturer's recommendations and include a check of:

Vehicle components

- Proper fluid levels (oil, hydraulic, fuel, and coolant)
- Leaks of fluids
- Wheels and tires
- Battery and charger
- Lower-level controls
- Horn, gauges, lights and backup alarms
- Steering and brakes

Lift Components

- Operating and emergency controls
- Personal protective devices
- Hydraulic, air, pneumatic, fuel and electrical systems
- Fiberglass and other insulating components
- Missing or unreadable placards, warnings, or operational, instructional, and control markings
- Mechanical fasteners and locking pins
- Cable and wiring harnesses
- Outriggers, stabilizers, and other structures
- Loose or missing parts
- Guardrail systems

Do not operate any aerial lift if any of these components are defective until it is repaired by a qualified person. Remove defective aerial lifts from service (tag out) until repairs are made.

What to Do While Operating an Aerial Lift

Fall Protection

- Ensure that access gates or openings are closed
- Stand firmly on the floor of the bucket or lift platform
- Do not climb on or lean over guardrails or handrails
- Do not use planks, ladders, or other devices as a working position
- Use a body harness or a restraining belt with a lanyard attached to the boom or bucket

Operating/Traveling/Loading

- Do not exceed the load-capacity limis. Take the combined weight of the workers, tools and materials into account
- Do not use the aerial lift as a crane
- Do not carry objects larger than the platform
- Do not drive with the lift platform raised (unless allow by the manufacturer's instructions)

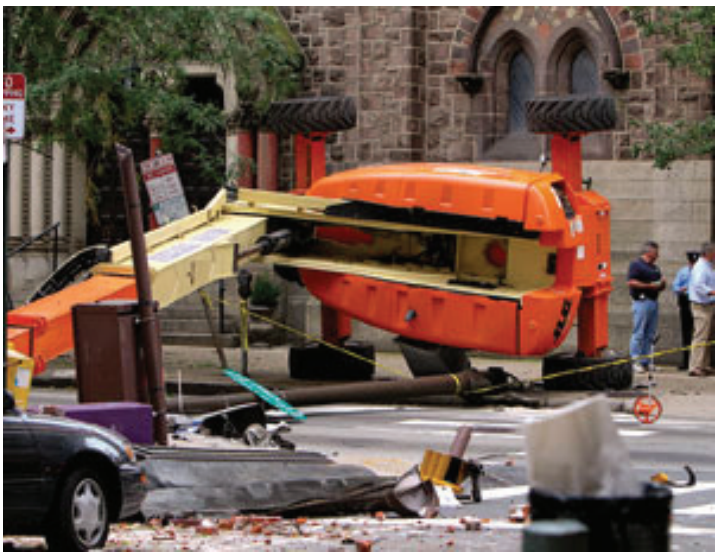
- Do not operated lower level controls unless permission is obtained from the worker(s) in the lift (except in emergencies)
- Do not exceed vertical or horizontal reach limits
- Do not operate an aerial lift in high winds above those recommended by the manufacturer
- Do not override hydraulic, mechanical, or electrical safety devices

Retraining

- Workers should be retrained if any of the following conditions occur:
- An accident occurs during aerial lift use,
- Workplace hazards involving an aerial lift are discovered, or
- A different type of aerial lift is used.
- Employers are also required to retrain workers who they observe operating an aerial lift improperly.

Stability in the Work Zone

- Set outriggers on pads or on a level, solid surface
- Set brakes when outriggers are used
- Use wheel chocks on sloped surfaces when it is safe to do so
- Set up work zone warnings, such as cones and signs, when necessary to warn others



Insulated aerial lifts offer protection from electric shock and electrocution by isolating you from electrical ground. however, an insulated lift does not protect you if there is another path to ground (for instance, if you touch another wire). To maintain the effectiveness of the insulating device, do not drill holes in the bucket.

Source: www.osha.gov/Publications/aerial-lifts-factsheet.pdf (OSHA standards 1926.453)