

## **Aerial Lift Safety**

While Eagle Industrial Instrumentation does not operate Aerial Lifts at any time, it is still necessary that we familiarize ourselves with the safe operation of this equipment.

Aerial lifts are commonly used in construction, maintenance practices and repair services to enable workers to reach elevated work positions. Proper operations and use of these lifts make the completion of work at elevations safer and more efficient. Improper and unsafe use can result in serious injury or death. The leading cause of death associated with the use of aerial lifts is that of electrocutions, falls and collapse/tipovers. Other causes of death include workers caught between the lift's guardrail or the bucket and components of the building such as beams or joists, walls, or process equipment. On platform or buck aerial equipment, workers can also be ejected from the bucket if the boom, bucket or platform is struck by something. Approximately 26 deaths occur each year from the use of scissor lifts, bucket trucks, boom supported lifts/platforms, cherry pickers etc.

### **OBJECTIVES OF THIS PROGRAM**

Ensure that all Eagle Industrial Instrumentation employees understand the use, limitations and safe operations of the lifts that they are going to operate.

Ensure all equipment used will be in compliance with applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms." ANSI/SIA A92.6-1990

Ensure that all equipment is maintained in good working order.

Ensure operators are trained on equipment inspection and the procedures for getting equipment fixed prior to use.

Provide operators with refresher training.

Educate operators on the hazards associated with the use and applications of the equipment.

Be able to identify if the lift has been modified for special applications. No lift should be modified without written permission from the manufacturer.

All aerial lift operators must be trained to be able to visually inspect the body harness and lanyard prior to each use. Inspections include looking for worn components.

### **PURPOSE**

Only competent trained and authorized (operators) employees should be allowed to operate aerial lifts. A competent and/or authorized person is an employer-designated employee who is:

Thoroughly trained in the operation of the specific lift to be used.

Currently trained in the pertinent OSHA/ANSI standards.

Capable of identifying any and all existing and potential hazards associated with aerial/scissor lift.

Knowledgeable of the maximum intended load and load capacity of the lift.

Authorized by the employer to take "prompt corrective measures to eliminate hazards.

Capable of implementing engineering, administrative and personal protective equipment hazard controls.

Aware of responsibilities as outlined in Section 8 of this Standard, ANSI /SIA 92.5-2006.

Knowledgeable of what type and when to use fall protection.

1. Slopes and grades
2. Deployment of stability enhancing equipment-outriggers and expandable axles
3. Guardrail systems
4. Distribution of loads
5. Maintaining overhead clearance
6. Electrocution hazards greater than 10 feet from any power line
7. PPE requirements
8. Fueling
9. Battery charging
10. Improper stabilization
11. Misuse as a crane
12. Unusual support conditions
13. Travel speeds

Workers must be retrained if the hazards change, the type of aerial lift changes or a worker is not operating a lift properly.

### **PREOPERATIONAL INSPECTION**

Conduct a pre-start inspection of equipment before use each day or at the beginning of each shift. Items to inspect include, but are not limited to, the following:

Utilize manufactures checklist.

Check engine components, levels and look for leaks: oil, fuel, coolant, air systems and hydraulic oil levels.

Check cables, wiring harness and remote controls for cuts and damage.

Check structural and mechanical components: air pressure in tires, look for cracks in frame, loose or missing parts and damaged rubber tires.

Check for any modifications. Modifications to the equipment shall not be made without written approval from the manufacturer.

Ensure the operating manuals are legible and are in the weather tight storage container.

Check safety devices (back up alarms), emergency controls, outriggers condition of guardrails, doors, chains, personal fall protection attachments and emergency lowering controls.

Check controls to make sure they are functioning, visible and readable— make sure all labels and stickers are in place.

Follow manufactures pre-operation, safety checklists and hours of service requirements.

Platform and ground panel controls must be tested prior to use to determine that all controls are in safe working condition.

Preventive maintenance: All preventative maintenance shall be in accordance with manufacturer recommendations and based upon environment and severity of use.

Frequent and annual inspections and repairs shall be in accordance with manufacturer manuals and instructions.

Check insulated components.

Any aerial lift with noted defects should not be operated and taken out of service. Lock out or tag out this equipment until all repairs have been made. All repairs should be made by a qualified mechanic.

### **WORK PLACE INSPECTIONS**

Inspection of the area where the lift will be used would include, but is not limited to, the following:

Overhead obstacles, power lines.

On the ground, look for hazards such as drop offs, holes, covered holes, soft soils, mud holes, uneven ground and construction debris.

Check the slope of the floor or ground—do not exceed the maximum slope designated by the equipment manufactures.

Set outriggers, braces, brakes and or wheel chocks—even if working on level ground.

Ensure the ground where you're going to operate the machine will adequately support the machine.

Avoid hazardous locations and atmospheres that may be flammable or corrosive.

Wind and weather conditions—do not operate if wind is greater than 15 mph.

Presence of unauthorized persons.

Working on an elevated platform, consider the following:

Always close lift platform gates or chains.

Always work off the floor of the lift, do not stand on guardrails.

Scissor lift fall protection: 100 percent fall protection when in a lift, then the personal fall protection equipment should be connected to the manufactures designated attachment points. Do not attach the lanyard to the guard rails. Some lifts can be overturned with 100 pounds of force.

Bucket lifts, platforms and all-terrain lifts fall protection: 100 percent fall protection is required. All operators are to work from the platform floor; do not climb on side rails or edge of the basket. Lanyards must be connected to the manufactures designed attachment points. Do not attach the lanyard to the guard rail system. The correct length of lanyard should be used to prevent the operator from being ejected out of the basket, bucket or platform.

Observe overhead obstructions, such as high voltage conductors, beams and piping.

Moving the lift. Unless the lift is designed to move in the extended position, it should be lowered to ground level prior to moving.

Outriggers must be positioned on pads and/or on solid ground when used. Brakes must be set when outriggers are used. Wheel chocks must be used if lift is used at an incline.

Do not exceed vertical or horizontal reach or weight limits specified by the manufacture.

Do not use lifts of any kind for pushing or pulling other objects.

Do not exceed the manufacturer's loads capacity.

Set barricades and signs around the ground working area of the lift.

Non-electrical workers must stay a minimum of 10 feet from live electrical wires.

Electricians and electrical workers must de-energize/insulate power lines or use proper personal protective equipment and tools.

***Do not override safety devices.***

Lifts that comes in contact with energized lines, personnel on the ground, or in the platform, must not touch or operate the machine until energized power lines are shut off.

Do not operate the machine during lightning or storms.

Never use a plank between the lift and another structure or work surface.

Do not lower the boom unless the area below is clear of personnel and obstructions.

Tipover hazards:

Do not drive or position lifts near the edge of loading dock drop offs or holes.

Do not raise the platform on uneven or soft surface.

Do not drive onto uneven or soft surfaces when elevated.

Do not raise the platform in windy or gusty conditions.

Do not use the platform as a crane.

Do not place or attach overhanging loads to any part of the platform.  
Do not place ladders or scaffolds in the platform or against any part of the machine.

**Operator refresher training should include, but is not be limited to, the following:**

Records of each aerial lift’s operator must be kept for at least four years. An evaluation of each aerial lift operator’s performance must be conducted:

After initial training

After refresher training

At least once every three years

**References**

The Occupational Health and Safety Administration” (OSHA) 29 CFR 1926.453 and 1926.454 cover the rules and regulations associated with the operations and working off these aerial platforms. [www.OSHA.gov](http://www.OSHA.gov)

American National Standards Institute, for Self-Propelled Elevating Work Platforms, ANSI/SIA A92.6-1990

American National Standards Institute, ANSI/SIA 92.5-2006 Section 5.2.2

Hazard Alert- Aerial Lift Safety, the Center to Protect Workers Rights, 2002

**Daily Inspection Checklist: Aerial or Scissor Lift ID #**

Date: Shift: Department:

Operator’s Name: Operator’s Signature:

**VEHICLE INSPECTION**

Oil level

Hydraulic oil level

Fuel level

Check the lift and surrounding area for leaks

Coolant level

Tire pressure and condition of wheels and tires

Battery and charger

\_\_\_ Ground control switches

**CHECK OPERATIONS**

Horn

Gauges

Brakes

Lights

Steering

Attachments or accessories

Backup alarm or warning buzzer

Warning lights

**PLATFORM LIFT EQUIPMENT INSPECTION**

Lift and travel controls and switches

Placards, decals and control ID labels

Handrails, guardrails and safety chains

Platform deck and toe boards

Steering

Attachments or accessories

Backup alarm or warning buzzer

Warning lights

***If the aerial or scissor lift fails any part of the inspection, remove the key and report the problem to your supervisor. Do not attempt to make repairs unless you are a trained and authorized service person.***

**RECORD ANY MALFUNCTIONS, DAMAGES OR PROBLEMS**

**AND REMEMBER, AS AN EMPLOYEE OF EAGLE INDUSTRIAL INSTRUMENTATION, YOU ARE NEVER TO OPERATE AN AERIAL LIFT !**