

# UNIVERSITY OF TOLEDO

SUBJECT: AERIAL WORK PLATFORMS/ SCISSORS LIFT

Procedure No: S-08-004

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## PROCEDURE STATEMENT

All aerial / scissors lifts operated on UT campuses must be adequately maintained, inspected and the operators trained as prescribed by OSHA requirements for aerial work platforms (AWP) and/or scissors lifts 29CFR1910.67 , 29CFR1910 .269(p), 29CFR1926.453, 29CFR1926.21,29CFR 1926.502 and/or as recommended in ANSI/SIA A92.2, ANSI/SIA A92.3, ANSI/SIA A92.5 and ANSI/SIA A92.6 standards.

## PURPOSE OF PROCEDURE

The purpose of this program is to establish requirements and training for work involving the operation of aerial work platforms (AWP) to ensure:

- A safe working environment for employees who operate, maintain, or work around AWP
- Compliance with regulatory requirements for use of AWP.

This procedure must be used in conjunction with other applicable University of Toledo policies and procedures involving the protection of workers in the work place.

## PROCEDURE

This program applies to all university employees who operate AWP and any University owned AWP. An AWP is any vehicle-mounted, boom supported aerial platforms, such as cherry pickers or bucket trucks. An AWP is a device used to elevate personnel, including extendable boom platforms, aerial ladders, articulating (jointed) boom platforms, vertical towers and any combination of above. All AWP operators must be trained in safe operations of the specific piece of equipment they will be operating. The UT personnel are responsible for care and maintenance of all UT owned AWP's. UT AWP operators must be trained to use AWP that are rented or leased prior to use.

## RESPONSIBILITIES

Managers and Supervisors are responsible for:

- Ensuring all AWP's are properly inspected and maintained in working order
- Ensuring any worker assigned to work with an AWP is properly trained
- Ensuring all AWP's operating procedures include appropriate safety instructions
- Oversight of all AWP operations
- Frequent/Annual inspection are completed
- Reporting accidents and near miss incidents to appropriate departments
- Leased or Rented AWP equipment has proper inspections completed and individuals operating it are trained prior to operation

UT AWP Operators are responsible for:

- Only operating equipment for which they have received training
- Following all manufacturer instructions for operating AWP
- Verify proper condition of lift prior to each work shift and remove from service if issues discovered
- Reporting accidents and near miss incidents to supervisors immediately
- Notifying supervisors when maintenance or repair of equipment is required
- Planning a safe work area/path before operation

Contractors and sub-contractors are responsible for complying with all elements of this program.

## HAZARDS

Elevated work being conducted must take into consideration additional hazards, which may affect the safety of the individual performing the work. Use is not permitted if the following hazards are not appropriately addressed or controlled:

- 1) Inclement weather: Elevated work equipment for use outdoors must address inclement weather as a prerequisite of operating the elevated work equipment. It is the operating department's responsibility to monitor the weather and determine if changes occur, which may create unsafe work conditions and to alert aerial lift/elevated work platform users when these conditions arise.
- 2) Wind: AWP's must have a pre-determined wind speed limitation. The equipment manufacturer is responsible for supplying this information to the department. If wind speeds exceed this limitation, use of an aerial lift or elevated work platform is not permitted. Refer to the manufacturer's specifications or design criteria for specific wind limitations. In the absence of a manufacturer's specific written advice, operation of aerial lifts outdoors is prohibited when wind speeds or gusts reach 28 mph.
- 3) Precipitation: Rain, snow, hail, sleet or fog, which may adversely affect the safe use of aerial lifts/elevated work platforms, will be appropriately addressed prior to elevated work being performed. If these conditions cannot be appropriately addressed, work will not be performed until weather conditions improve.
- 4) Electrical hazards: Only personnel certified to work on electrical lines will be permitted to approach electrical lines during aerial work platform operations. Elevated work equipment will not come within 10 feet of overhead electrical lines at anytime, unless approved to work on overhead electrical lines. It is the responsibility of the employee to ensure overhead electrical lines are addressed prior to elevated equipment use, and avoided during use.
- 5) Vehicular and pedestrian traffic. At all times during the use of elevated work equipment, the employee will ensure vehicular and pedestrian traffic does not create additional hazards. During the use of mobile lifts, the operator will ensure the path of travel is not made unsafe due to excess vehicular or pedestrian traffic. Stationary elevated work platforms will be constructed and protected to ensure vehicular and pedestrian traffic is restricted.

All operators and users of aerial lift/elevated work platforms must use suitable means for detecting future inclement weather, elevated wind speeds, rain, hail, etc. prior to performing elevated work through approved wind gauges, up-to-date weather reports or other approved methods. It is the responsibility of the aerial lift operator or elevated work platform user and their supervisor to determine when inclement weather will render elevated work platforms unsafe.

Other common hazards with AWP's:

- Fall from elevated level
- Objects falling from lift
- Tip-overs
- Ejections from the lift platform
- Structural failures
- Entanglement hazards
- Contact with objects
- Contact with overhead objects

## SAFE WORK PRACTICES

Always follow manufacturer instructions when operating AWP's. Only authorized and properly trained individuals can operate AWP's, and the following are commonly suggested safe work practices:

1. Make sure that workers who operate aerial lifts are properly trained in the safe use of the equipment
2. Maintain and operate elevating work platforms according to manufacturer's instructions
3. Do not modify lifts without written approval from the manufacturer
4. Never override hydraulic, mechanical, or electrical safety devices
5. Never move the equipment with workers in an elevated platform unless this is permitted by manufacturer
6. Do not allow workers to position themselves between overhead hazards, such as joists and beams, and the rail of the basket.)
7. Maintain a minimum clearance of at least 10 feet, or 3 meters, away from the nearest overhead lines
8. Always treat power lines, wires and other conductors as energized, even if they are down or appear to be insulated
9. Use a body harness or restraining belt with a lanyard attached to a boom or basket to prevent the worker(s) from being ejected or pulled from the basket
10. Use outriggers, if provided
11. Never exceed the manufacturer's specified maximum load. Allow for combined weight of the worker, tools and materials
12. Do not operate on surfaces that exceed the manufacturer's maximum slope (typically 5% or less). Always use wheel chocks and brakes when operating on any slope.
13. Never position or tie off the lift or platform against a wall, structure, or other surface.
14. Maintain the intended center of gravity by evenly dispersing loads on the platform. Never attempt to increase the surface area of the platform with planks, boards, or other devices.
15. Do not let materials extend over the edge of the platform. Do not hang tools or equipment off the sides or rails of the platform.
16. Exercise care when raising and lowering the platform to avoid entangling ropes, cords, etc. in the machine.

## INSPECTIONS

Prior to each work shift, conduct a pre-start inspection, listed in Appendix A, to verify that the equipment and all its components are in safe operating condition. Be sure to follow the manufacturer's recommendations.

Do not operate any aerial lift if any of these components are defective until a qualified individual repairs it.

All identified issues observed during any inspection must be immediately corrected. In addition, the lift must be immediately removed from service until the necessary corrective actions have been conducted. The manager of the department using the lift is responsible for ensuring that all the required inspections are conducted.

A pre-start inspection (visual and functional test) must be conducted prior to using the lift each day or at the beginning of each shift, refer to Appendix A, or use a manufacturer approved checklist.

### Work Zone Inspections

Employers must assure that work zones are inspected for hazards and take corrective actions to eliminate such hazards before and during operation of an aerial lift. Items to look for include:

1. Drop-offs, holes, or unstable surfaces such as loose dirt
2. Inadequate ceiling heights
3. Slopes, ditches, or bumps
4. Debris and floor obstructions
5. Overhead electric power lines and communication cables
6. Other overhead obstructions

7. Hazardous atmospheres (worksites with flammable vapors/dust/fibers)
8. High wind and other severe weather conditions, such as ice
9. The presence of others in close proximity to the work

#### Frequent and Quarterly Inspections

A frequent inspection shall be performed on all lifts when the device is first acquired and when a lift has been out of service for more than 3 months. A quarterly inspection shall be performed when the lift is in-service 150 hours or more and/or when the manufacturer recommends. The inspection must be completed by a person qualified as a mechanic on the specific platform or one having similar design or characteristics.

#### Annual Inspections

Annual inspections must be performed on each lift every 12 months. The inspection shall be performed by a qualified mechanic who is authorized to perform maintenance duties on the lift. The inspection must include all items specified by the manufacturer.

#### Maintenance

All maintenance that is performed on lifts shall be performed by trained and experienced professionals. The manager of the department using the lift is responsible for ensuring that all required inspections are conducted and properly documented.

## OPERATION OF LIFT

#### Fall Protection

1. Ensure that access gates or openings are closed
2. Stand firmly on the floor of the bucket or lift
3. Do not climb on or lean over guardrails or handrails
4. Do not use planks, ladders, or other devices as a working position
5. Use a body harness or a restraining belt with a lanyard attached to the boom or bucket
6. Do not belt-off to adjacent structures or poles while in the bucket
7. Keep the platform clean and free of debris
8. Position equipment so that the weight is evenly distributed and in a manner that does not create a trip hazard
9. Enter and exit the platform only when it is fully lowered.

#### Operational/Traveling/Loading

1. Do not exceed the load-capacity limits. Take the combined weight of the worker(s), tools, and materials into account when calculating the load
2. Do not use the aerial lift as a crane
3. Do not carry objects larger than the platform
4. Do not drive with the lift platform raised (unless the manufacturer's instructions allow this )
5. Do not operate lower level controls unless permission is obtained from the worker(s) in the lift (except in emergencies)
6. Do not exceed vertical or horizontal reach limits
7. Do not operate an aerial lift in high winds above those recommended by the manufacturer
8. Do not override hydraulic, mechanical, or electrical safety devices.

### Overhead Protection

1. Be aware of overhead clearance and overhead objects, including ceilings
2. Do not position aerial between overhead hazards if possible
3. Treat all overhead power lines and communication cables as energized, and stay at least 10 feet (3 meters) away
4. Ensure that the power utility or power line workers de-energize power lines in the vicinity of the work

### Stability in the Work Zone

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

## TRAINING

All employees and users of elevated work equipment must receive training prior to any use of this equipment. An approved trainer, the equipment manufacturer or training consultant, will provide training. It is the responsibility of the department using the AWP to assure proper training has been completed and documented.

Training should address the following areas of safe use:

- Review of equipment manuals
- Pre-use inspections
- Operator responsibilities
- Stability
- Warning signs
- Safe use
- Fall protection
- Equipment limitations (wind, occupancy, surface slope, etc.)
- Manufacturers recommendations

Hands-on training should provide the trainee with the experience to allow them to safely operate the lift. Upon successful completion of training, operators will be certified to operate aerial lifts. Training records must be maintained by the department supervisor.

Operator recertification will be completed when one of the following occurs:

1. The operator is observed using the lift in an unsafe manner
2. The operator is involved in an accident or near miss
3. The equipment changes
4. Workplace conditions change resulting in unsafe work conditions.

## ACCIDENT REPORTING

Accident reporting must be completed using the University of Toledo's Accident Investigation report and if needed the University of Toledo's Injury and Illness report if the operator has been involved in an accident or a near-miss incident.

#### ADDITIONAL REFERENCES AND RELATED PROGRAMS

OSHA – 29 CFR 1926.453-Aerial Lifts  
OSHA – 29 CFR 1910.67 (Vehicle Mounted Elevating and Rotating Work Platforms)  
Aerial Lifts-Protect Yourself-OSHA Quick Card  
ANSI/SIA A92.6-2006-Self Propelled Elevating Work Platforms  
UPRIGHT-A resource for aerial lifts  
Section 5 of the OSHA Act, commonly referred to as the “General Duty Clause”:

Source: Safety & Health Committee

Effective Date: 12/20/2023

**APPENDIX A – PRE-USE INSPECTION CHECKLIST**

	UNIT INSPECTION ITEM AND DESCRIPTION
1	The manufacturer's operations manual is stored on the unit
2	Operating and emergency controls are in proper working condition (including emergency stop mechanism)
3	Functional platform drive controls are in proper working condition
4	Emergency lowering mechanism operates properly
5	Lower operating controls successfully override the upper controls
6	Both upper and lower controls are adequately protected from inadvertent operation
7	Control panel is clean and all buttons/switches are clearly visible
8	All switch and mechanical guards are in good condition and properly installed
9	All safety indicator lights work
10	All drive controls function properly and are accurately labeled
11	Motion alarms function properly
12	Safety decals are in place and readable
13	All guard rails are sound and in place, including basket chains
14	Work platform and extension slides are clean, dry, and clear of debris
15	Models with platform extensions: slides in and out freely with functioning safety locking pins
16	Inspect for defects, including cracked welds, fuel leaks, hydraulic leaks, damaged control cables or wire harness, etc.
17	Tires and wheels are in good condition with adequate air pressure if pneumatic
18	Braking devices are operating properly
19	Oil level/Hydraulic Oil Level/Fuel Level/Coolant Level is acceptable
20	Battery Charge is acceptable
21	Outriggers in place or functioning and associated alarms working

Safety Precautions to Consider/Have/Be Aware Of
Appropriate Personal Protection in use (harness, lanyard, hardhat, etc.)
See manufacturer guidelines for use in windy conditions (always lower if lift begins to rock in the wind)
Floor/ground conditions: drop offs, holes, uneven surfaces, and sloped floors
Housekeeping: debris, floor obstructions, cords, construction materials and supplies
Location of electrical power cables or panels (keep minimum 10 ft. away) Contact Facilities Management Department for guidance on larger lines or wet conditions.
Look for chemical lines, gas lines, drain lines, and utilities
Location of overhead obstructions
DO NOT exceed load capacity
Watch for vehicular and pedestrian traffic (set up barricades if necessary)

**If the Aerial Lift fails any part of this inspection, remove the key and report the problem to your supervisor. DO NOT operate.**