

Safe Use of Aerial Lifts

Date of Origination: 9/13/2019

Revisions: Initial

I. PURPOSE

To establish uniform administrative procedures and minimum requirements for the safe use of aerial lifts.

II. <u>Definition</u>

1. Aerial Lift – any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel as well as any scissor lift or other powered personnel lift. While scissor lifts and other non-vehicle mounted lifts are not technically aerial lifts by OSHA definition, they do present similar fall hazards as well as other generally recognized hazards and are used to perform similar tasks.

III. <u>POLICY</u>

- 1. The key to safe and proper usage is common sense and its careful application along with adequate training.
- 2. If at any time a lift operator determines that an unsafe condition exists, they must immediately stop all work, lower and leave the lift.

The use of aerial lifts by untrained personnel can result in serious injury or death, therefore all personnel must be fully trained by a certified instructor before operation and the training must be documented. The DEHS maintains a list of certified instructors for aerial lifts in various departments. Contact DEHS to arrange training.

- 3. A copy of the training documentation must be sent to EHS on completion. The training must include:
 - a. Trainees must exhibit knowledge of the operations manual and exhibit competency in actual operation of the machine(s).
 - b. Familiarization with cautions and operating instructions on the machine and in the manual.
 - c. Practical demonstration of the use of both sets of controls (in the lift and ground controls)
 - d. Instruction in identifying all known hazards in the work area such as overhead electric lines, holes, etc.
 - e. Instruction on prohibition of use in winds in excess of 28 mph and higher wind gusts if lift will be used outside.
 - f. Instruction on use of a hand-held anemometer if lift is used outside.
 - g. Instruction on how to use emergency controls.
 - h. Instruction on conducting a daily inspection using a checklist (see attached).
 - i. Instruction on proper use of safety rails, chains and personal fall arrest systems.

j. Instruction on how to survey the areas immediately around the lift for personnel and equipment before operation.

IV. SCOPE

This policy and accompanied procedures apply to all University personnel, faculty, staff and students as well as all outside contractors when working on University property and applies to all types of aerial lifts.

V. PROCEDURES

- 1. Complete a daily inspection and document on checklist.
- 2. A malfunctioning lift shall be shut down, tagged out of service and reported to your supervisor for repairs.
- 3. Controls shall be plainly marked as to their function.
- 4. Test controls immediately prior to use to confirm they are in safe operating condition.
- 5. All safety rails, doors and chains must be in closed position during operation. In addition, a personal fall arrest system including full body harness, lanyard and anchor point on lift must be used where required. This includes all articulating lifts, bucket trucks, Genie Lifts and JLG's. A personal fall restraint or fall arrest system must be utilized when operating a scissor lift when not all guardrails are in place, when working overhead and when Department policy dictates their use. Do not exceed load limits. In many cases below 18 feet working height elevation, or if there are other non-moveable physical hazards below the elevated work, a self-retracting lanyard (SRL) is necessary.
- 6. Do not anchor to any object outside of the lift.
- 7. Instruction and warning placards must be legible.
- 8. Use barricade tape, cones or other means to alert others of the overhead work and keep personnel from entering area under the lift.
- 9. Do not use lift near electric power lines. The lift must maintain the following minimum distance from energized electrical power lines:

Voltage (kv)	Minimum Clearance (ft)
up to 50	10
over 50 to 200	15
over 200 to 350	20
over 350 to 500	25
over 500 to 750	35

- 10. Before beginning work, survey the area and review the job for any unsafe conditions or potential hazards.
- 11. Do not modify the lift.

- 12. Except in an emergency, do not operate ground controls unless permission is granted from personnel in the lift.
- 13. Personnel shall always stand on the floor of the platform or in the bucket and never on handrails or midrails. Always operate the lift on a firm, level surface.
- 14. Before ascending, deploy outriggers if the lift is so equipped.
- 15. Do not operate lift in high winds (>28 mph) or if wind gusts are forecast.
- 16. Do not operate if thunderstorms are in the area. Check weather forecast regularly (preferably with a local weather app). When in doubt, use a hand-held anemometer to verify wind speed.
- 17. Do not move the lift with personnel on the elevated platform or in the elevated bucket unless the lift is designed to do so. If the lift is designed to move with an elevated platform, limit speed to 1 mile per hour and operate only on a firm, level surface. If not, consult the EHS department.
- 18. Do not use the lift to install or transport large surface area pieces such as signs, banners, canopies, etc. that could cause a sail effect and effect the lift's stability.
- 19. Keep all body parts inside platform railings or in the bucket when moving the lift.
- 20. Verify that the operator's manual is on the lift this UD procedure does not take the place of the manufacturer's operators manual.
- 21. Do not exit the lift to elevated locations unless a personal fall arrest system is utilized and there is an anchor point on the elevated surface on which to tie off to maintain 100% fall protection before releasing from the lift. A dual lanyard system is necessary for this process. Do not unhook from one anchor point until attached to another anchor point.
- 22. Do not cause a horizontal force or side load on the lift.
- 23. A qualified contractor must inspect aerial lifts on a frequency recommended by the manufacturer.

DAILY CHECKLIST FOR AERIAL LIFT OPERATION UNIVERSITY OF DELAWARE

- ____ Check weather forecast and wind speed.
- ____ Check for damaged, loose or missing parts
- ____ Check tire inflation/condition (visual)
- ____ Check fuel level or battery charge
- ____ Look for air, hydraulic or fuel system leaks
- ____ Check for loose hoses or wires
- ____ Ensure operating controls are working properly
- ____ Ensure that auxiliary (ground) controls are working properly
- _____ Ensure that lift is on level surface
- ____ Check guardrail system and chains
- ____ Check placards, warnings and control markings
- ____ Deploy outriggers if equipped
- _____ Verify operations manual is on lift
- _____ Verify that fall arrest/positioning equipment is present and in good condition
 - _____ Barricades or other means to keep bystanders away in place

✓ OK for operation

Please circle one

<u>OK</u>

NO

DO NOT USE

Report problems to issuing department for repair

Lift model and serial #	
-------------------------	--

Date_____ Operator_____

Example Personnel Lift Training Certification

Name: _____

I have attended a presentation on safely operating the:

□ Genie IWP-25S personnel lift

Skyjack SJIII-3219 personnel lift

□ Skyjack SJ-8831 personnel lift

□ Genie AWP-40S personnel lift

- □ Other lift, specify:_____
- □ I must conduct a thorough pre-operation inspection of the machine and test all functions before each work shift.
- □ I understand and will not exceed the maximum occupancy listed on a lift label.
- □ I must not operate the machine near drop-offs, holes, bumps, debris, unstable, or slippery surfaces.
- □ I must not raise the platform unless the machine is level.
- □ I must never sit, stand, or climb on the platform guardrails.
- □ I must never exit the platform while raised.
- □ I must keep the platform floor clear of debris.
- □ I must never use the machine on a moving or mobile surface or vehicle.
- □ I must lower the platform entry mid-rail or gate before operating.
- □ I must check the work area for overhead obstructions or other possible hazards.
- □ I must not lower the platform unless the area below is clear of personnel and obstructions.
- □ I must not place ladders or scaffolds in the platform or against any part of this machine.
- □ I must only transport tools and materials that are evenly distributed and can be safely handled by the person in the platform.
- □ I must not cause a horizontal force or side load to the machine.
- □ I must remove the key to prevent unauthorized use when I am not using the lift.
- □ I must use a personal fall arrest or positioning system when required bucket truck, articulating lift, manlift, scissor lift, etc. where indicated by manufacturer or Departmental procedures

Genie IWP-25S & Genie AWP-40S Specific Checklist

Before I raise the platform, I must ensure that:

- all four outriggers are properly installed
- the base is level and the leveling jacks firmly contact the floor
- □ I must never move the machine while the platform is raised.
- □ I must never adjust or remove the outriggers while the platform is raised or occupied.

□ I must not place or attach overhanging loads to any part of this machine.

Trainee's Signature:_____

Instructor's Signature:_____ Date of Training:_____