



Aerial and Scissor Lift Safety Program

Aerial and scissor lifts are used in many industries because they are mobile and provide easy access to elevated work. Because there are many hazards involved with operating lifts, all employees **MUST** be trained before using them.

Potential hazards include:

- Fall from elevated level
- Objects falling from lifts
- Tip-overs due to wind, poor surface conditions, improper setup
- Ejections from the lift platform
- Structural failures/collapses
- Electric shock
- Entanglement
- Contact with objects, ceilings or other overhead objects

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Fall Protection

Full body harnesses and lanyards should be used as intended by the manufacturer for employee fall protection. Appropriate devices should be used to provide 100% fall protection. The “D” ring on the body harness must be positioned in the back between the shoulder blades to minimize impact forces of the body in the event of a fall.

All fall protection equipment shall be carefully inspected prior to each use and periodically throughout the day. Safety equipment showing any signs of mildew, torn or frayed fabric or fiber, burns, excessive wear, or other damage or deterioration which could cause failure should be permanently removed from service. All fall protection equipment should be properly maintained and stored when not in use. This includes keeping dry and out of sunlight, away from caustics, corrosives or other materials that could cause defects.

Hard hats and safety harnesses must be worn by employees in the bucket or platform of any aerial lift device. Other safety personal protective items may be required by either the company or the clients safety policies. High visibility clothing is not required for employees, but it is recommended while working in the air.

Consideration must be given to water hazards and appropriate precautions. When 100% fall protection is employed, OSHA water safety standards are not mandated. However, it is advisable to take minimum precautions such as readily available buoy and safety line, and a rescue boat.

Before using the scissor lift



- Check safety devices and operating controls before each use
- Check area where the aerial lift will be used:
 - Level surface (do not exceed the manufacturer slope recommendations)
 - Holes, drop-offs, bumps, debris, etc.
 - Overhead obstructions and overhead power lines
 - treat all overhead power lines and communication cables as energized, and maintain a 10-foot plus distance (three meters) away from these utilities
 - Stable surface (soft dirt, unpacked gravel)
 - Set outriggers (if applicable), brakes, wheel chocks
 - High winds and other severe weather conditions such as ice, snow, etc.
 - Never use a lift when winds exceed 25 mph or if the manufacturer specifies maximum mph

Procedures

Lift equipment should be inspected upon delivery to the job site, and prior to use daily, including testing the controls prior to use.

Before extending or raising the boom or platform, outriggers (if so equipped), should be positioned properly and the lift level. Outriggers should be placed on mud mats or another solid surface, and should not be used to level the vehicle. If the lift is on unlevel ground, the wheels should be chocked and the parking brake set. Sufficient clearance must be checked before raising the lift. For under-bridge units, adequate clearance beneath the boom should be assured.

Employees should keep both feet on the floor of the bucket or platform at all times. When the lift has to be moved, it should only be moved when the bucket or platform is at the lowered position. For scissor lifts, this is lowered all the way down, and for aerial lifts, this is lowered to the lowest point that the operator can safely see to drive the vehicle.

Employees are required to wear full body safety harnesses with lanyards. The lanyards should be attached to an engineered anchorage point inside the lift. Do not wrap the lanyard around a rail and tie back onto itself. Employees should not anchor on structural members outside of the lift, unless exiting the lift to get on the structural members.

Platform lifts (scissor lifts) should have a top- and mid-rail and a kick plate (toe board), along with an engineered anchorage point to tie off. Employees should not climb or stand on the mid or top rails, keeping both feet on the floor of the platform.

Tools, parts or any materials should not be dropped or thrown from the bucket or platform. When using welding or heating equipment from the bucket or platform, the vehicle should be protected from sparks and slag and special care must be taken to remove flammable objects from the lifts.

Electrical Safety

When working near electrical lines or equipment, avoid direct or indirect contact. Direct contact is body contact. Indirect contact is when the body touches or is in dangerous proximity to any object that is in contact with energized systems. Always assume lines are “live” and carry high voltage. Electrical lines can only be considered “dead” when verified by licensed electricians from the utilities department, and proper lockout and tagout has been performed.

Employees should not position any aerial lifts closer than 10 feet to a power line that carries up to 50 kilovolts. For each kilovolt over 50, add four inches.

Ensure posted warning placards are in place concerning electrical lines.

If the operator is unable to assess the clearances while operating the aerial lift, then a “spotter” must be used to observe the clearances and warn the operator.

Tips for Aerial Platforms and Manlift Safety

1. Only authorized, properly trained and qualified people should operate this equipment.
2. Operating and maintenance instruction manuals issued by the manufacturer must be followed at all times.
3. Load limits of the boom and basket must not be exceeded. Shock loading (sudden stops or starts) of the equipment should be avoided.
4. Aerial lifts should not be “field modified” unless the modifications are certified by the manufacturer. The insulated portion must not be altered in any manner that might reduce its insulating value.
5. Prior to use, the equipment should be given a warm up period. The hydraulic system and the lift controls should be checked and tested daily before use to determine that they are in safe working condition. Equipment that’s not in proper operational condition, must not be used.
6. Lower level controls should not be operated unless permission has been given by the employee in the lift (except in the case of an emergency). Ground controls should be positive override.
7. The truck should not be moved unless the boom is lowered, the basket cradled and secured, and the outriggers retracted.
8. Employees should not ride in the bucket while the truck is traveling.
9. When employees are in the bucket of an aerial lift, the emergency brake of the vehicle must be set. Wheel chocks or outriggers should be used to provide added protection. When the vehicle is on an incline, wheel chocks should be used regardless of whether or not outriggers are used. The truck should sit approximately level when viewed from the rear.
10. When outriggers are used, they must be set on a solid surface, or on pads.
11. Employees should not belt to an adjacent pole or structure. Workers must be tied-off when working from an aerial lift. A body belt is permitted only if it is part of a restraint system (a system that prevents the worker from being exposed to any fall). Otherwise, a body harness must be used and the equipment must meet the requirements of a fall arrest system.
12. When a boom is operated on a street or highway, all of the necessary precautions must be taken to eliminate accidents with traffic and pedestrians.
13. The operator must always face in the direction in which the basket is moving and must be able to see that the path of the boom or basket is clear when it is being moved.
14. Employees should not stand or sit on top of the edge of the basket or on ladders placed in the basket. Employees’ feet must be on the floor the entire time that he/she is in the basket.
15. Employees should not wear climbers while in the basket.
16. When two workers are in the basket, one of them should be designated to operate the controls. The other should give all signals, which must be clearly understood by all parties.
17. In no instance should more than one energized conductor or phase be worked at on time.
18. The aerial lift, together with the workers in the basket, and all tools and equipment must maintain proper clearances from unprotected energized conductors.
19. When using hydraulic or pneumatic tools in a bucket, the operator must be sure that hoses or lines do not become entangled in the operational controls.
20. All aerial devices should be equipped with suitable flashing warning lights.
21. All controls must have protective guards to prevent accidental operation of the controls.
22. Periodic electrical tests should be made of the boom insulation and aerial basket liners.
23. Equipment or material should not be passed between a pole or structure and an aerial lift while an employee working from the basket is within reaching distance of unprotected, energized conductors or equipment.
24. When used near energized conductors or equipment, vehicles should be properly grounded or barricaded. Ground crews must not touch the vehicle until it is safely clear of energized conductors.

