

Powered Platforms, Manlifts, and Vehicle Mounted Work Platforms

1.1 PURPOSE

- 1.1.1 The purpose of this policy is to provide the minimum requirements for TERRY R PITT CONSTRUCTION employee use of aerial and scissor lifts. This work instruction applies to all aerial lifts, including manually and self-propelled units, vertical masts, scissor lifts, extensible and articulating boom platforms, telescoping booms, and van mounted articulating booms. This policy addresses the basic requirements for the operation of aerial work platforms to provide access to an elevated work location.

1.2 RESPONSIBILITIES

1.2.1 Safety department

- 1.2.1.1 Ensure that this policy and procedures are followed.
- 1.2.1.2 Verify that aerial and scissor lifts are inspected prior to use by the operator(s).
- 1.2.1.3 Ensure that any aerial or scissor lift identified as unsafe by the operator is not used.
- 1.2.1.4 Ensure only trained and qualified workers are authorized to operate aerial work platforms.

1.2.2 Competent person

- 1.2.2.1 Perform a documented annual inspection of the aerial or scissor lift.
- 1.2.2.2 Tag equipment out of service if found deficient and cannot be fixed prior to use.
- 1.2.2.3 Obtain manufacturer's approval before making any modifications.

1.2.3 Equipment operator

- 1.2.3.1 Test lift controls each day prior to use to determine that such controls are in safe working condition.
- 1.2.3.2 Perform a visual inspection of the aerial or scissor lift prior to each shift's use.
- 1.2.3.3 Consider the work area where the aerial or scissor lift will be used and provide input to identify any additional hazards and mitigations.
- 1.2.3.4 Complete operator training prior to operating.
- 1.2.3.5 Operate aerial lifts in accordance with training and manufacturer's recommendations.
- 1.2.3.6 Use required personal fall protection equipment and other personal protective equipment necessary for the task(s) to be performed.
- 1.2.3.7 Ensure that the aerial work platform is not overloaded beyond rated load capacities.
- 1.2.3.8 Report defective or malfunctioning equipment and any incident involving the use of aerial or scissor lifts as soon as practical.

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1.2.3.9 Obey the signals of the signal person (if used) and stop the task if contact with the signal person is broken.

1.2.3.10 Stop work if conditions change.

1.2.4 Signal person

1.2.4.1 Function as the sole signaler at any given time.

1.2.4.2 Have a direct line of sight of equipment movement and make sure contact with anything at ground level or overhead is avoided.

1.2.4.3 Adhere to a clear, agreed-upon, standard set of signals for communicating with the operator or if out of the operator's direct line of sight, use agreed-upon verbal commands by radio.

1.2.4.4 Control the jobsite access to prevent other personnel from walking under the elevated work platform.

1.2.4.5 Verify that overhead obstructions have been identified and mitigated.

1.2.4.6 Stop work if conditions change.

1.3 GENERAL

1.3.1 Mobile elevating work platforms are designed for different uses. It is essential to select the right machine for the job.

1.3.2 Factors to consider when choosing the appropriate equipment include capacity, surface conditions, platform size and configuration, mobility, material to be lifted, access, and work environment.

1.3.3 Hazards of using elevated work platforms include electrical, pinch points, struck by, crushed by, caught in, tip over and collapse, falls, collision, entanglement, improper use, and hazardous atmospheres.

1.3.4 Only trained and authorized workers are allowed to operate aerial lifts and other equipment.

1.3.5 Operating manual must be stored on the platform in a weather-proof storage container.

1.3.6 All controls must be clearly labeled with action and direction. All signs and decals must be kept clear of dust and grease so they can be easily read. Torn or damaged signs must be replaced.

1.3.7 Do not leave the machine unattended without locking it or otherwise preventing unauthorized use.

1.3.8 Do not load the platform above its rated load capacity.

1.3.9 Altering, modifying, or disabling safety devices or interlocks is prohibited.

1.3.10 Shut off power and insert the required blocking before maintenance or servicing.

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- 1.3.11 Deploy stabilizers or outriggers according to the manufacturer's instructions.
- 1.3.12 Elevated platforms will be flagged with caution tape around the work area including but not limited to the lift body. The purpose is to alert others of potential travel hazard as well as overhead falling objects.
- 1.3.13 Keep ground personnel away from the machine and out from under the platform.
- 1.3.14 Do not access the platform by walking on the boom.
- 1.3.15 Do not use the machine as a ground for welding.
- 1.3.16 Do not use a boom-supported platform as a crane.
- 1.3.17 Do not place the boom or platform against any structure to steady either the platform or the structure.
- 1.3.18 The elevated work platform must not be operated from a position on a truck, trailer, railway car, floating vessel, scaffold, or similar equipment.
- 1.3.19 Before moving an aerial lift for travel, the boom will be inspected to see that it is properly cradled and outriggers are in stowed position.
- 1.3.20 The boom and platform of the elevated work platform must not be used to move or jack the wheels off the ground unless the machine is designed for that purpose by the manufacturer.
- 1.3.21 Belting off to an adjacent pole, structure, or equipment while working from an aerial lift is prohibited.
- 1.3.22 Secure loads and tools on the platform so that movement will not cause them to shift or fall.
- 1.3.23 Make sure that extension cords are long enough for the full platform height and will not get pinched or severed by the scissor mechanism.
- 1.3.24 Use three-point contact and proper climbing techniques when mounting/dismounting from equipment.
- 1.3.25 Stunt driving and horseplay are prohibited.

1.4 OPERATING PROCEDURES

- 1.4.1 Before operating the mobile equipment, check the work area for drop-offs or holes in the ground, slopes, bumps or floor obstructions, debris, overhead obstructions, overhead wires, powerlines, or other electrical conductors, hazardous atmospheres, adequate operating surface - ground or floor, sufficient ground or floor support to withstand forces imposed by the platform.
- 1.4.2 No employee will use any aerial lift equipment while having an obstructed view to the rear unless the vehicle has a reverse signal alarm audible above the surrounding noise level or the vehicle is backed up only when a trained signal person is present and signals that it is safe to do so.
- 1.4.3 Set brakes and extend outriggers, if so equipped, on pads or solid surfaces. Ensure the surface area is suitable and stable to the extent necessary for proper support of the unit.

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- 1.4.4 The manufacturer rated load capacity must not be exceeded. The load and its distribution on the platform must be in accordance with the manufacturer specifications. The aerial work platform rated load capacity must not be exceeded when loads are transferred to the platform at elevated heights. Boom and basket load limits specified by the manufacturer will not be exceeded.
- 1.4.5 Position the boom in the direction of travel unless the manufacturer specifies differently.
- 1.4.6 Wheel chocks will be installed before using an aerial work platform on an incline provided they can be safely installed.
- 1.4.7 Articulating boom and extensible boom platforms, primarily designed as personnel carriers, will have both platform (upper) and lower controls. Lower level controls will not be operated unless permission has been obtained from the worker in the lift, except in case of emergency.
- 1.4.8 Elevated work platforms must be elevated only when on a firm and level surface or within the slope limits allowed by the manufacturer instructions. Most lifts are designed for operation on relatively flat surfaces with minimal slope (< 5%). Do not operate on surfaces that exceed the manufacturer maximum rated slope.
- 1.4.9 An elevated work platform will not be moved when the boom, ladder, or scissors lift is elevated in a working position with workers in the basket or on the ladder, except for equipment which is specifically designed for this type of operation. Only aerial work platforms that are equipped with manufacturer's installed platform controls for horizontal movement may be moved while in the elevated position.
- 1.4.10 Aerial ladders must be secured in the lower traveling position by the locking device on top of truck cab and the manually operated device at base of the ladder before the truck is moved for highway travel.
- 1.4.11 Ensure safe clearances are maintained around the work area when operating. Check the clearances for swing radius and boom travel. A signal person may be necessary to direct or spot the operator when operating in congested or obstructed areas.
- 1.4.12 Only workers, their tools, and necessary materials must be on or in the platform.
- 1.4.13 The guardrail system must not be used to support materials, other work platforms, or workers.
- 1.4.14 Workers must maintain firm footing on the platform while working on the platform. The use of railings, planks, ladders, or any other devices on the platform for achieving additional height is prohibited.
- 1.4.15 Fuel gas cylinders must not be carried on bucket platforms that would allow the accumulation of gases.
- 1.4.16 Before and during driving, an operator of a platform must look in the direction of travel, keep a clear view of the path of travel, and make sure that the path is firm and level. A driver must avoid pedestrians, vehicles, debris, drop-offs, holes, depressions, ramps, overhead obstructions, overhead electrical lines, and other hazards to safe elevated travel.
- 1.4.17 Platform gates must be closed while the platform is in an elevated position.

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- 1.4.18 Care must be taken by the operator to prevent ropes, cords, and hoses from becoming entangled in the aerial work platform.
- 1.4.19 Operator must ensure that the area surrounding the aerial work platform is clear of personnel and equipment before lowering the platform.
- 1.4.20 The elevated work platform must not be positioned against another object to steady the platform.
- 1.4.21 If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles so that control reversal does not free the platform, all workers must exit from the platform before attempts are made to free the platform.
- 1.4.22 Weather conditions such as wind and lightning must be evaluated prior to raising the boom or platform. Manufacturer's recommendations for use in windy conditions must be followed.
- 1.4.23 Aerial lifts may be *field modified* for uses other than those intended by the manufacturer provided the modification has been certified in writing by the manufacturer or by any equivalent entity.

1.5 SAFETY REQUIREMENTS

- 1.5.1 An assessment of the exposures associated with the activity to be performed must be completed to ensure thorough hazard recognition.
- 1.5.2 Elevated work platforms are only to be used for the purposes for which they were designed and in accordance with manufacturer specifications and instructions.
- 1.5.3 For the specific elevated work platform used, equipment operator must be familiar with the manufacturer operating manual, warning and caution signs on the equipment, the location of all emergency controls, emergency procedures, and daily inspection requirements.
- 1.5.4 Provisions must be established for emergency response concerning retrieval of the operator stranded in an elevated position.
- 1.5.5 Do not disarm safety features such as the tilt or level warning or the deadman switch.
- 1.5.6 Do not operate the equipment in windy conditions. For safe wind speeds refer to the operator's manual for the specific make and model being used.
- 1.5.7 Always check for overhead powerlines before moving the machine or operating the platform. Operators must observe minimum permitted distances from overhead powerlines.
- 1.5.8 A designated signal person on the ground must be used to guide the operator when the path of travel is not clear or access is tight.
- 1.5.9 Do not access the platform by climbing the scissors or the boom. Do not use extension ladders to gain access. For the safest access, lower the machine completely.

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- 1.5.10 Clothing, fingers, and hands can get caught in scissor mechanisms. As platforms are raised, machines may sway. Workers can be pinched between guardrails and the structure. Position the platform so that work takes place above guardrail height.
- 1.5.11 Lower the platform before moving the machine. Slight dips and drops are amplified when the platform is raised and can cause the machine to overturn. Only move the machine with the platform raised if both of the following conditions are met - the machine is designed to move with platform raised, the supporting surface is smooth and level and if workers are protected by using and wearing an adequate means of fall protection.
- 1.5.12 Workers must always stand firmly on the floor of the platform and must not sit or climb on the edge of guardrails or use planks, ladders, or other devices for a work position.
- 1.5.13 Operator must ensure that the gate is securely closed before moving the platform.
- 1.5.14 Operator must wear a full body harness with an acceptable lanyard. A fall restraint lanyard is preferred. The fall restraint lanyard should be attached to a designated anchor point and the length should be adjusted to prevent ejection from the basket. A self-retracting lanyard is also acceptable if attached to a designated anchor point at waist level or above.
 - 1.5.14.1 A 6-foot lanyard with a shock absorber is not to be used in an aerial work platform. Attaching the lanyard to an adjacent pole, structure, or equipment while working from an aerial work platform is not permitted. Any personal fall arrest or travel restraint system must be worn and attached to the boom or basket when working from an aerial lift. Operators are not permitted to attach their personal fall arrest system or travel restraint system to adjacent poles or structures.
- 1.5.15 When a defect is reported to the supervisor, the equipment must be taken out of service until the repairs are completed and the equipment is inspected and approved for use.

1.6 INSPECTION AND MAINTENANCE

- 1.6.1 Each aerial work platform must be inspected, maintained, repaired, and kept in proper working condition in accordance with the manufacturer's operating or maintenance and repair manual or manuals.
- 1.6.2 All equipment owned, rented, or leased by TERRY R PITT CONSTRUCTION and/or used by subcontractors must be inspected prior to use and annually thereafter. TERRY R PITT CONSTRUCTION's annual equipment inspection will be done by a third party, ex. manufacturer or distributor qualified to complete such an inspection. Documentation certifying the inspection results and date must be provided by the inspecting party.
- 1.6.3 Lift controls will be tested each day prior to use to determine that such controls are in safe working condition. A visual inspection of the lift components and a test of all controls and safety devices, including a full operational test, must be completed on the day used, prior to operation.

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- 1.6.4 Before use, visual equipment inspections must be performed before each shift and must include cracked welds, bent or broken structural members, hydraulic or fuel leaks, damaged controls and cables, loose wires, tire condition, fuel and hydraulic fluid levels, and slippery conditions on the platform.
- 1.6.5 The results of the inspection must be documented.
- 1.6.6 Any aerial work platform found not to be in a safe operating condition must be removed from service until repaired.
- 1.6.7 Service and repair are to be conducted only by qualified mechanics and replacement parts must meet the original equipment manufacturer's specifications.
- 1.6.8 Equipment will be maintained by competent workers in accordance with manufacturer's instructions. No modifications should be made to the machine without the manufacturer's approval.
- 1.6.9 Any unsafe conditions identified in the jobsite inspection must be corrected prior to the use of the lift in the jobsite area.

1.7 FALL PROTECTION

- 1.7.1 Employees working in an aerial man lift, bucket truck, boom lift, or aerial lift other than a scissor lift will utilize appropriate fall arrest or fall restraint systems. Operators will reference the equipment's requirements for the appropriate type of fall protection system to be utilized.
- 1.7.2 Guardrails will be in place and access gates properly closed per the manufacturer's instructions while lift is in use.
- 1.7.3 Operators that work in a scissor lift where the guardrails are not in place will be required to wear an approved fall arrest or fall restraint system.
- 1.7.4 It is recommended that lanyards used for lifts be as short as possible to restrain a worker from being thrown from the aerial platform.
- 1.7.5 Workers will remain tied-off until work is finished and platform has been safely lowered to the ground.
- 1.7.6 Tying off to an adjacent pole, structure, or other equipment is prohibited while working from the platform.
- 1.7.7 A means of notifying emergency personnel for the prompt rescue of employees in the event of a fall must be present on the jobsite. A means for promptly rescuing employees who have fallen must be determined before the work begins. This could include self-rescue if such means are provided.
- 1.7.8 A scissor lift with approved guardrails can be used without a personal fall arrest system. When working from an elevated scissor lift (ANSI A92.6 series), a worker need only be protected from falling by a properly designed and maintained guardrail system. However, if the guardrail system is less than adequate, or the worker leaves the safety of the work platform, an additional fall protection device

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would be required. Also, if the manufacturer recommends or mandates that personal fall protection be used, the operator must adhere to the manufacturer's safety policy for safe operation.

1.8 OVERHEAD POWERLINES

- 1.8.1 Always check for overhead powerlines before moving the machine or operating the platform. A minimum distance of 10 feet should be maintained by operators of aerial lifts from energized electrical powerlines that are 50 kV or less and any part of the equipment or load unless the aerial lift is insulated for the voltage involved, and the work is performed by a qualified person, then the clearance distance between the uninsulated portion of the aerial lift and the powerline may be referenced to the distance provided in 29 CFR 1910.333(c)(3)(ii)(C) Table S-5.
- 1.8.2 When equipment operates within reach of (and could therefore encroach on) the minimum distance from a powerline, make arrangements with the owner of the utility to have the powerline de-energized.
- 1.8.3 Allow for movement or sway of lines as well as platform. Be aware of overhanging tools or equipment.

1.9 TRAINING

- 1.9.1 TERRY R PITT CONSTRUCTION workers responsible for work tasks involving the use of an elevated work platform must be able to recognize and assess the hazards associated with working at heights as well as elevated work platform operation.
- 1.9.2 Training must be specific to the type of elevated work platform that is to be used. This training must include both classroom and hands-on equipment training. TERRY R PITT CONSTRUCTION supervisors competent in lift operations may conduct this training.
- 1.9.3 Workers who operate aerial work platforms must complete additional training on fall protection.
- 1.9.4 Workers must be trained by a qualified person in the hazards associated with the use of aerial and elevated work platforms before their use. This training must include safety guidelines for avoiding hazards above, below, and beside the elevated work platform. Training must include classroom and hands-on training. Documentation of training is maintained by the safety department.
- 1.9.5 Refresher training is required at least every three years. More frequent refresher training may be necessary in the event of circumstances including, but not limited to, changes in the workplace or fall protection systems/equipment that are not sufficiently addressed in the training. The apparent or demonstrated lack of knowledge or skill on the proper use of fall protection equipment also requires refresher training.