# Aerial Work Platforms Program

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PURPOSE
The Aerial Work Platform Program is designed to achieve compliance with the Safety Department Aerial Platforms. This standard applies to the construction, operation, maintenance and inspection of manual and powered aerial work platforms.

SCOPE AND APPLICATION
This program applies to all employees using aerial work platforms. Outside contractors using aerial work platforms must also comply with this program or have an equivalent program. Outside contractors must provide the contracting department with a copy of their program prior to performing the required work.

POLICY
Prior to using an aerial work platform, the aerial lift procedures which follow, shall be implemented to ensure employees are protected from the hazards associated with aerial work platforms.

DEFINITIONS
Aerial Work Platforms: an entire device that is designed and manufactured to raise personnel to an elevated work position on a platform supported by scissors, masts or booms. Aerial work platforms include: vehicle-mounted elevating work platforms, manually propelled elevating work platforms, boom-supported elevating work platforms and self-propelled elevating work platforms.

Articulating Boom: an aerial device that has two or more hinged boom sections.

Authorized Person: a person who is approved and assigned to perform specific types of duties and who is qualified to perform those duties because of his or her training or experience.

Insulated Aerial Device: an aerial work platform that is designed with dielectric components to meet specific electrical insulating ratings.

Mechanically Positions: the elevating assembly, whether a mechanical (cable or chain), hydraulic, pneumatic, electric or other powered mechanism, is used to raise or lower the platform.

Platform: the portion of an aerial work platform, such as a bucket, basket, stand, cage, or the equivalent, that is designed to be occupied by personnel.

Qualified Person: a person who processes a recognized degree, certificate professional standing or skill and who, by knowledge, training, and experience, has demonstrated the ability to deal with problems relating to the subject matter, the work or the project.

Vertical Tower: an aerial device that is designed to operate vertically on a level surface.

RESPONSIBILITIES
Supervisors:
1. Shall implement procedures in accordance with the Aerial Work Platforms Program.
2. Shall develop written Stand Operation Procedures for all aerial lifts.
3. Ensure employees are trained and aware of this Program.
4. Shall ensure employees are informed, trained, and provided with the appropriate fall protection systems and equipment to be protected from potential fall hazards associated with job tasks.
5. Shall promptly investigate and report all on-the-job accidents or near misses.
6. Contact the Safety Office to request technical assistance and to evaluate health and safety concerns within their department.

Employees:
1. Shall comply with this Program and all departmental Standard Operating Procedures.
2. Shall wear appropriate fall protection equipment when required.
3. Shall inspect all fall protection equipment prior to use.
4. Shall use all inspection check lists found in the following appendices.
5. Shall report any accidents, near misses or job-related injuries or illnesses to their supervisors and seek prompt medical treatment.
6. Shall participate in the required training.

Safety Office:
1. Shall arrange training of university and college employees in fall protection and in the safe use of elevating personal platforms.
2. Shall conduct periodic inspections of aerial lift equipment.
3. Shall review and revise this Program as necessary.

CONSTRUCTION
1. Aerial lifts used shall be in compliance with the following applicable American National Standards Institute standard:
   b. ANSI standard A92.3-1990, “Manually Propelled Elevating Work Platforms”
   c. ANSI standard A92.5-1992, “Boom-Supported Elevating Work Platforms”
   d. ANSI standard A92.6-1999, “Self-Propelled Elevating Work Platforms”
2. Aerial work platforms shall not be field-modified for uses other than those intended by the manufacturer, unless the modification has been certified in writing by the manufacturer.
3. Directional controls shall be in compliance with all of the following:
   a. Be of the type that will automatically return to the off or neutral position when released.
   b. Be protected against inadvertent operation.
   c. Be clearly marked as to their intended function.
   d. An overriding control shall be provided in the platform which must be continuously activated for platform directional controls to be operational and which automatically returns to the off position when released.
4. Aerial work platforms shall be equipped with emergency controls at ground level.
5. Emergency ground level controls shall be clearly marked as to their intended function and be capable of overriding the platform controls.
6. All of the following information shall be clearly marked in the permanent manner on each aerial work platform:
   a. Special warnings, cautions, or restrictions necessary for operation.
   b. Rated work load.
   c. A clear statement of whether or not the aerial work platform is electrically insulated.
7. Rotating shafts, gears and other moving parts that are exposed to contact shall be guarded.
8. Attachments point shall be provided for all fall protection devices for personnel who occupy the platform on vehicle-mounted and boom-supported elevating work platforms.

INSPECTION, MAINTENANCE AND TESTING
1. Each aerial work platform shall be inspected, maintained, repaired and kept in proper working condition in accordance with the manufacturer’s or owner’s operating or maintenance and repair manual(s). The appropriate checklists are located in the appendices of this program.
2. Daily and weekly inspections shall be conducted by the operator(s). Monthly, quarterly, and semi-annual inspections shall be conducted and/or overseen by the supervisor.
3. Any aerial work platform found not to be in safe operating condition shall be removed from service until repaired. All repairs shall be made by an authorized person in accordance with the manufacturer’s or owner’s operating or maintenance and repair manual(s).
4. If the aerial work platform is rated and used as insulated aerial device, the electrical insulating components shall be tested for compliance with the rating of the aerial work platform according to ANSI standard A92.2-1990, Section 6. Testing shall comply with the following:
   a. The test shall be performed not less than annually.
   b. Written, dated and signed test reports shall be maintained and readily available for inspection.
   c. The insulated portion of an aerial device shall not be altered in any manner that might reduce its insulating value.

5. All danger, caution, and control marking and operational plates shall be legible and not obscured.

TRAINING
1. Each employee who will operate an aerial work platform shall receive instruction and training regarding the specific equipment before permission is issued. The instruction and training shall ensure each operator is in compliance with the minimum following provisions:
   a. Is instructed by a qualified person in the intended purpose and function of each of the controls.
   b. Is trained by a qualified person or reads and understands the manufacturer or owner’s operating instructions and safety rule.
   c. Understands by reading or by having a qualified person explain, all decals, warning and instructions displayed on the aerial work platform.
   d. Reads and understand the provisions of this section or is trained by a qualified person on their content.

2. The manufacturer’s operating instructions and safety rules shall be provided and maintained in a legible manner on each aerial work platform.

3. Employees shall demonstrate competence in operation of the aerial lift prior to operating an aerial lift.

PREOPERATIONAL PROCEDURES
1. Before use on each work shift, the operator of an aerial work platform shall conduct a visual inspection of the aerial lift to check for defects that would affect its safe operation and use. The inspection shall consist of not less than both of the following procedures:
   A. Visual inspection for all of the following:
      • Cracked welds.
      • Bend or broken structural members.
      • Hydraulic or fuel leak.
      • Damaged controls and cables.
      • Loose wires.
      • Tire condition.
      • Fuel and hydraulic fluid levels.
      • Slippery conditions on the platform.
   B. Operate all platform and ground controls to ensure they perform their intended functions.

2. Before the aerial work platform is used and during use, the operator shall use the Daily Aerial Lift Inspection Form and also inspect for all the following:
   A. Ditches.
   B. Drop-offs.
   C. Holes.
   D. Bumps and floor obstructions.
   E. Debris.
   F. Overhead obstructions.
   G. Power lines.
   H. Any similar conditions to those listed above.
   I. Area around the aerial work platform to assure clearance for the platform and other parts of the unit.

3. All unsafe items found as a result of the inspection of the aerial work platform or work area shall be corrected before further use of the aerial work platform.
4. Any overhead wire shall be considered to be an energized line until the owner of the line or his/her authorized representative ensures that is is de-energized.

5. When electrical clearances cannot be maintained, the equipment shall not be used.

OPERATING PROCEDURES

1. The aerial work platform shall be used only in accordance with the manufacturer or owner’s operating instructions and safety rules. Unauthorized personnel are prohibited from operating an aerial lift.

2. When operating aerial work platforms or other equipment under, over, by or near energized electric power lines the following clearances shall be maintained:
   A. Voltage Minimum Clearance
      • 0 to 50kV – 10Ft
      • Over 50kV – 10Ft + .4 inches per kV

3. The above clearance requirements do not apply to the following situation:
   A. Where work is performed from an insulated aerial device which is insulated for the work and the work is performed in accordance with the provisions of the MIOSHA construction safety standards Part 16 “Power Transmission and Distribution” and Part 30 “Telecommunications.”
   B. Where the electric power transmission or distribution lines have been de-energized and visibly grounded at the point of work or where insulating barriers that are not a part of an attachment to the aerial work platform have been erected to prevent physical contact with the line.
   C. Where work is being performed by 2 licensed journeyperson electricians on equipment up to .5kV.

4. Two licensed journeypersons will be required for work within the minimum clearance on equipment over .5kV.

5. Proximity warning devices may be used, but shall not be used instead of meeting the requirements contained above.

6. The manufacturer’s rated load capacity shall not be exceeded. The operator shall ensure the load and its distribution on the platform are in accordance with the manufacturer’s specifications. The aerial work platform rated load capacity shall not be exceeded when loads are transferred to the platform at elevated heights.

7. Only personnel, their tools and necessary materials shall be on or in the platform. Secure tools and other loose items to prevent injury to persons working on or below the platform.

8. The guardrail system of the platform shall not be used to support any of the following:
   A. Materials
   B. Other work platforms
   C. Employees

9. Personnel shall 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.
Aerial Lift Checklist

Checklist **MUST BE** completed before operating the MEC Scissor Lift

1. Keep inspection records up-to-date.
2. Record and report all discrepancies to your supervisor.
3. A dirty machine cannot be properly inspected.

**OPERATIONAL CHECKLIST**

**INITIAL DESCRIPTION**

___1. Perform a visual inspection of all machine components; missing parts, torn or loose hoses, hydraulic fluid leaks, torn or disconnected wires, damaged tires, etc. Replace components as necessary.
___2. Check the hydraulic fluid level with the platform fully lowered.
___3. Check the tires for damage. Check wheel lug nuts for tightness.
___4. Check the platform rails and safety gate for damage.
___5. Check the pivot pins for security.
___6. Ensure all warning and instructional labels are legible and secure.
___7. Inspect the platform control. Ensure the load capacity is clearly marked.
___8. Check the base controls for proper operation. Check all switches and push buttons for proper operation
___9. Check the platform control for proper operation. Check all switches and push buttons, as well as ensuring that the driver controller returns to neutral.

**OPERATOR WARNINGS AND PRECAUTIONS CHECKLIST**

___1. Fall protection. The guardrail system of the aerial platform provides all protection, and shall be installed and positioned properly.
___2. Check slop and grade in use area to ensure lift stability.
___3. Use outriggers when necessary.
___4. Check distribution of load.
___5. Maintain overhead clearance.
___6. Check for and eliminate electrocution hazards.
___7. Personal protective equipment.
___8. Personnel footing. Personnel shall maintain a firm footing on the platform floor while working.
___9. Be aware of other moving equipment.
___10. Report problems or malfunctions.
___12. Keep hands off guardrails while in motion.

DATE:_______________________ INSPECTED BY:___________________________________________________
Aerial Lift Checklist

Daily Aerial Lift Inspection Checklist

All checks must be completed before operation of the aerial lift. This checklist must be used at the beginning of each shift or after six to eight hours of use.

MANUALLY PROPELLED LIFT

SELF PROPELLED LIFT

LIFT MODEL NUMBER

SERIAL NUMBER

INITIAL DESCRIPTION

1. Perform a visual inspection of all aerial lift components, missing parts, torn or loose hoses, hydraulic fluid leaks, etc. Replace as necessary.
2. Check the hydraulic fluid level with the platform lowered.
3. Check the tires for damage. Check wheel lug nuts for tightness.
4. Check the hoses and the cables for worn areas or chafing. Replace if necessary.
5. Check for cracked welds.
6. Check the platform rails and safety gate for damage.
7. Check for bent or broken structural members.
8. Check the pivot pins for security.
9. Check that all warning and instructional labels are legible and secure.
10. Inspect the platform control. Ensure the load capacity is clearly marked.
11. Check for slippery conditions on the platform.
12. Check the hydraulic system pressure (See manufacturer’s specifications). If the pressure is low, determine the reason and repair in accordance with accepted procedures as outlined in the service manual.
13. Check the base controls for proper operation. Check switches and push buttons for proper operation.
14. Check the platform controls for proper operation. Check all switches and push buttons, as well as ensuring that the drive controller returns to neutral.

DATE: ___________________________  INSPECTED BY: ____________________________________________
Weekly Aerial Lift Inspection Checklist

All checks must be completed before operation of the aerial lift. This checklist must be used at weekly intervals or every 25 hours, whichever occurs first.

DATE:_______________________ INSPECTED BY:___________________________________________________

MANUALLY PROPELLED LIFT

SELF PROPELLED LIFT

LIFT MODEL NUMBER

SERIAL NUMBER

___1. Perform all checks listed on Daily Inspection Checklist.
___2. Check wheel lugs for proper torque. (see manufacturer’s specifications)
___3. Inspect all arms and pivot points for signs of water and/or damage.
___4. Lubricate all grease fittings. (follow manufacturer’s recommendations)
___5. Check all wire connections.
___6. Check all battery electrolyte levels and connections.

DATE:_______________________ INSPECTED BY:___________________________________________________
Aerial Lift Checklist

Monthly Aerial Lift Inspection Checklist

All checks must be completed before operation of the aerial lift. This checklist must be used at monthly intervals or every 100 hours, whichever occurs first.

MANUALLY PROPELLED LIFT

SELF PROPELLED LIFT

LIFT MODEL NUMBER

SERIAL NUMBER

INITIAL DESCRIPTION

1. Perform all checks listed on Daily and Weekly Inspection Checklists.
2. Inspect the condition of hydraulic fluid in the reservoir. Oil should have a clear amber color.
3. Inspect the entire machine for signs of damage, broken welds, loose bolts, improper or makeshift repairs.
4. Check the pin joints and retaining rings for security.
5. Check if the ties are leaning in or out.
6. Check that all adjustable flow valves are locked, check setting if any are not locked.
7. Check that the platform does not drift with a full load.
8. Check the electrical motor brushes.

DATE:_______________________ INSPECTED BY:___________________________________________________
## Quarterly Aerial Lift Inspection Checklist

All checks must be completed before operation of the aerial lift. This checklist must be used at quarterly intervals or every 300 hours, whichever occurs first.

### MANUALLY PROPELLED LIFT

### SELF PROPELLED LIFT

### LIFT MODEL NUMBER

### SERIAL NUMBER

**INITIAL DESCRIPTION**

- 1. Perform all checks listed on Daily, Weekly and Monthly Inspection Checklists.
- 2. Change hydraulic filter element.
- Additional Maintenance Requirements For Severe Usage Applications.

**DATE:**_________________________  **INSPECTED BY:**___________________________________________________
Aerial Lift Checklist

Semi-Annual Aerial Lift Inspection Checklist

All checks must be completed before operation of the aerial lift. This checklist must be used at six month intervals or every 500 hours, whichever occurs first.

MANUALLY PROPELLED LIFT

SELF PROPELLED LIFT

LIFT MODEL NUMBER

SERIAL NUMBER

INITIAL DESCRIPTION

1. Perform all checks listed on Daily, Weekly, Monthly and Quarterly Inspection Checklists.
2. Have a hydraulic fluid sample analyzed at a test laboratory. Comply with the test results and recommendations.
3. Check the operation speeds to ensure they are within specified limits. (see manufacturer’s specifications)
4. Check the emergency lowering system.
5. Clean and lubricate all push button switches with dry lubricant and ensure that the switches operate freely in all position.
6. Inspect the platform structure for damage and condition of welds.
7. Check the tightness of the platform frame and the linkage pins.
8. Check the overall platform stability.
9. Check the electrical mounting and hardware connections for security.
10. Replace the filter element.
11. Check the king pins for excessive play.

DATE:_______________________ INSPECTED BY:___________________________________________________