
Aerial Lift Compliance Work Instruction

1.0 Purpose

It is the policy of Waupaca Foundry, Inc. to permit only trained and authorized personnel to operate aerial lifts, and to ensure that operators have a basic understanding of related hazards and safe operation of the specific equipment they use.

2.0 Scope

This work instruction applies to all powered or manually operated personnel lifting devices being operated by WAUPACA FOUNDRY, INC. personnel such as:

2.1 Telescoping: (ex. Scissor lifts and genie lifts) The personnel basket or platform only moves up and down. There are no hinged sections in the boom.

Reference: ANSI/SIA A92.6-2006, "Self-Propelled Elevating Work Platforms"

2.2 Articulating: (ex. Boom lift, construction type lift). The personnel basket or platform can be maneuvered up, down, over and sideways. There are one or more hinged boom sections. Personal Fall Arrest systems are required when using an articulating lift, including a full body harness, lanyard and tie off.

Reference: ANSI/SIA A92.5-2006, "Boom-Supported Elevating Work Platforms"

3.0 Definitions and Responsibilities

3.1 Manufacturer: The manufacturer is a person or entity who makes, builds, or produces an aerial platform. The manufacturer has the responsibility of manufacturing the machine to dimensional, operational, structural, stability and quality standards. As it pertains directly to the operation and maintenance of the aerial platform, the manufacturer has the responsibility to provide operational and maintenance instructions and to identify the hazards associated with operating or repairing the aerial lift equipment.

3.2 Dealer: The dealer is a person or entity who buys from a manufacturer or distributor and who generally sells, rents and services aerial lift equipment. The dealer is responsible to deliver to the user or operator a machine that meets the manufacturer's standards for design, structural integrity, stability and quality. The dealer is responsible for offering appropriate training and familiarization to the owner, user or operator regarding all aspects of proper aerial platform operation and safety. The dealer is responsible for keeping all records of inspections, repairs, training and familiarization for a minimum of four years.

3.3 Owner: A person or entity who has possession of aerial lift equipment by virtue of proof of purchase. The owner could be the dealer in a rental situation or may have the responsibilities of the user if they are directing operators to operate the machine. It is the owner's responsibility to keep and maintain the manuals as supplied by the manufacturer and to insure that a copy of each is stored on the machine. The owner is responsible for insuring that all maintenance and inspections have been

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performed on the machine as required by the manufacturer. Whenever an owner directs someone to operate an aerial platform, the owner must provide training as described in the ANSI Responsibilities Manual provided with the machine. The owner is responsible for keeping all records of inspections, repairs, training and familiarization for a minimum of four years.

3.4 User: Person(s) or entity(ies) that has care, control, and custody of the aerial lift equipment. This person or entity may also be the employer of the operator, a dealer, employer, owner, lessor, lessee, or operator. It is the users responsibility to keep and maintain the manuals as supplied by the manufacturer and to insure that a copy of each is stored on the machine. The user is responsible for insuring that only trained, qualified and authorized personnel are allowed to operate the equipment. The user is responsible for providing training for any persons operating or maintaining the aerial lift equipment, unless otherwise agreed upon.

3.5 Operator: A qualified person who controls the movement of aerial lift equipment. The operator is responsible for operating the aerial platform within the limits of intended use as defined by the manufacturer in the operator's manual and job site and other governing agencies. The operator is responsible for insuring they have received proper training and are familiar with the specific model of aerial lift equipment to be operated. The operator is responsible for visually inspecting and documenting results for the aerial lift equipment prior to each use. They are also responsible for the function tests in accordance with manufacturer's recommendations.

4.0 Objectives

The objectives of the Aerial Lift Safety Work Instruction include:

- 4.1 To ensure that operators understand the limitations and safe operations of the equipment.
- 4.2 To ensure that all equipment is properly maintained and is kept in good working order.
- 4.3 To ensure that equipment malfunctions are noted prior to and during operation before accidents occur; and to remove the malfunctioning equipment from service immediately.
- 4.4 To ensure that non-qualified employees do not operate the equipment.
- 4.5 To ensure operators receive refresher training as necessary.
- 4.6 To ensure that qualified trainers are available to instruct new operators and conduct refresher training.
- 4.7 To determine and enforce minimum clearance for Live Wire electricity.
- 4.8 Provide guidelines to the Purchasing department to be used during the composition of rental agreements for this type of equipment.

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5.0 Training

Only the personnel who have received general instructions regarding the inspection, application and operation of aerial platforms, including recognition and avoidance of hazards associated with their operation, shall operate an aerial platform.

Such items covered shall include, but not be limited to, the following issues and requirements:

- The purpose, use and location of the aerial lift manuals.
- That operating manuals are an integral part of the aerial platform and must be stored properly on the lift when not in use.
- A pre-work inspection.
- Responsibilities associated with problems or malfunctions affecting the operation of the aerial platform.
- Factors affecting stability.
- The purpose of the placards and decals.
- Inspection of the work area the lift will be used in.
- Safety rules and regulations, including a review of this work instruction.
- Authorization to operate.
- Operator warnings and instructions.
- Actual operation of the aerial platform. The trainee must operate the aerial platform for a sufficient period of time to demonstrate proficiency in the actual operation of the aerial platform.

5.1 Operators must complete WAUPACA FOUNDRY, INC. aerial lift classroom training regarding the safe use of aerial lifts, as well as demonstrate adequate skill operating the lift.

5.1.1 Upon delivery of aerial lift equipment by sale, lease, rental or any form of use, the dealer shall have the responsibility with the person designated by the receiving entity for accepting the aerial platform to:

- Identify the weather resistant compartment (for manual storage)
- Confirm the manuals, as specified by the manufacturer and ANSI, are contained in the compartment on the lift.
- Review control functions.
- Review safety devices specific to the model aerial platform being delivered.

5.2 Operator Certification will be valid for 3 years.

5.3 Where personal fall arrest systems are required to be used (i.e. articulating /boom aerial lifts) in conjunction with the lift, training will involve the proper donning, fit and use of the full body harness, lanyard and the use of the approved anchor point in the lift.

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5.4 Applicable additional training may be required, after incident review, under the following conditions:

5.4.1 The operator is observed operating the aerial lift unsafely.

5.4.2 The operator is involved in an incident or near miss involving an aerial lift.

5.4.3 The operator evaluation indicates a need for additional training and/or practice. 5.4.4 A different type of lift it to be used. (*Familiarization training)

6.0 Inspection

6.1 Delivery Inspection: A copy of the delivery inspection will be produced by the rental company/dealer and maintained by the safety department.

6.2 Pre-Use Inspection: Lifts must be inspected prior to each use for general damage and defects which may affect the integrity or operation of the equipment. Report any defect immediately and do not use the lift until repairs have been completed. Repairs should be made by qualified aerial lift technicians only. Findings of the pre-use inspection shall be documented on the Pre-Use checklist, HSF 4-0055.

6.3 At a minimum, Quarterly and Annual inspections will also be completed with documentation maintained.

7.0 General Requirements

7.1 Proper Set Up

7.1.1 Outriggers: If outriggers are provided with the lift, they must be used. Outriggers stabilize the lift and help prevent tip over. Many types of lifts will not permit operation unless the outriggers have been set up and the lift is level. If the lift is designed to be used on a slope or incline, the wheels should be chocked to prevent inadvertent movement.

7.1.2 High Traffic: When used in high traffic areas (pedestrian or vehicle), the area around the base of the aerial lift must be barricaded as well as the area below the basket.

7.1.3 Surface: Aerial lifts can tip over if they are not set up on a firm, level surface. Avoid using aerial lifts near drop offs, holes, uneven surfaces, in soft soil conditions, on slopes, or where there may be an uneven weight distribution.

7.1.4 Additional Consideration: The need for a spotter while working in high traffic areas, or isolated areas is encouraged.

7.1.5 When setting up the lift to perform work that may result in the worker in the lift being close to the vehicle controls, the emergency stop mechanism shall be engaged, prior to starting the work, to prevent inadvertent movement of the equipment.

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7.2 Workplace Inspection: Before the aerial lift equipment is used, and during use, the operator shall check the area in which the aerial lift is to be used for possible hazards such as, but not limited to:

- Drop-off's or holes, including those concealed by water, ice, mud, etc.
- Slope(s)
- Bumps and floor obstructions
- Debris
- Overhead obstructions and electrical conductors
- Hazardous locations and atmospheres
- In adequate surface and support to withstand all load forces imposed by the aerial lift equipment in all operating configurations.
- Wind and weather conditions
- Presence of unauthorized persons
- Other possible unsafe conditions.

7.3 Maximum Capacity: Operators must be familiar with the maximum lifting capacity of their lift. It should be indicated on the lift itself, and may be expressed as pounds or the maximum number of people for the basket. When determining the load, if unsure, estimate 250 pounds per person on the platform, plus the weight of any tools, materials, and equipment that will be on the platform also. The maximum capacity should never be exceeded.

When using a platform extension, refer to the owner's manual for the extensions capacity rating.

7.4 Working Height: The working height of a lift should never be extended by standing on makeshift devices or mid-rails, sitting on the top rail of the platform or bucket, or using ladders.

7.5 Fall Protection: All lifts designed to be the required ANSI standard have fall protection system incorporated into their design. Top and mid rails should never be altered without expressed written permission from the lift manufacturer. Moveable chains or bars provided at access points must be attached or properly placed in order to maintain the protective system.

The operator should always be within the boundaries of the protective system (i.e. feet on the floor and not over reaching beyond the guardrail system). The requirement for personal fall arrest systems (i.e. full body harness/lanyard/tie off) can be found under the requirements for each type of lift.

7.6 Adverse Weather Conditions: Aerial lifts operated outdoors, should not be used in adverse weather conditions, such as approaching thunderstorms, high winds, or lightning activity in the area.

The occupants of the equipment shall use caution to avoid increasing the surface area with such materials as tarps, sheet metal, plywood, banners etc. – thus creating a "sail" and decreasing stability of the lift.

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7.7 Electrical Hazards: Aerial lifts must not be operated within 10 feet of overhead power lines unless the operator is an electrically qualified person and has proper training, knowledge, PPE and tools necessary to work on or near the line safely. The 10-foot clearance applies to any part of the lift, the operator and any tools, materials and equipment in use. When electrically qualified persons are operating within the 10-foot clearance area, personnel on the ground must not be in contact with any part of the aerial lift.

The aerial lift platform shall be considered to be un-insulated and able to conduct electricity.

7.8 Operator's Manual and ANSI/SIA A92.5-2006 or ANSI/SIA 92.6-2006: These manuals for the lift must be available to the operators on the lift itself. Operators must take the time to review operating instructions and safety guidelines. Servicing and maintenance should be in accordance with the manufacturer's recommendations.

7.9 Stunt Driving and horseplay are prohibited.

7.10 Mechanical Failure: All lifts should have auxiliary (i.e. ground) controls so the platform/basket can be safely lowered to the ground in the event that operator platform controls fail, or the operator cannot operate basket controls for some reason.

Operators should never attempt to climb out of the basket or climb down the boom in the event of mechanical failure (unless there are hazardous conditions in the area that warrant immediate/emergency action). Ground controls can be operated by another certified operator in the area, provided that permission is given by the stranded operator. Permission is implied if the operator is unresponsive.

7.11 PPE – Personal Protective Equipment: While operating aerial lift equipment, all occupants must don hardhats and safety glasses. Fall protection shall be worn in articulating lifts.

7.12 Fueling / Battery Charging: Fueling or battery charging of the lift should be conducted according to the manufacturer's recommendations. In general, no sparks or open flames shall be in the fueling/charging area, and adequate ventilation must be available.

7.13 Post Operation: The aerial lift shall be left on firm level ground with the basket lowered and machine off after operation.

7.14 Inclined Surfaces: At no time shall a lift be left unattended on an incline, slope or ramp.

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8.0 Fall protection

8.1 Scissor Lifts: This type of lift typically will sway during use. It is unlikely that a person operating this type of lift will be thrown from the platform or basket under proper use conditions. A personal fall arrest system is not required for this type of lift provided the guardrail system is fully intact and functional, including the proper placement of the chain, bar, or gate at the access point to the platform.

8.2 Articulating Lifts: Articulating lifts not only sway during use, they bounce as well. Because of this inherent quality, and often lower guardrail systems, a personal fall arrest system (i.e. full body harness with connecting device attached to the designate anchor point) is required to be used by all occupants. The lanyard or connecting device should only be attached to the manufacturer approved designated anchor point, or to an alternate anchor point, approved by the safety manager, such as a boom strap.

8.3 Exit and Entry: When exiting or entering a lift from an elevation greater than 4 feet, the lift must be within 12 inches of the receiving platform or structure. Occupants must practice 100% fall protection tie off. In this situation, if possible, the normal entry and exit point shall be used.

9.0 Forms

HSF 4-0055 "Pre-Operational checklist"

HSF 4-0047 "Operator Observation Checklist"