

## 1.0 INTRODUCTION

This Standard identifies the requirements for the operation and maintenance of aerial lifts, mobile elevating work platforms (MEWP's) and material/personnel hoists that can be raised and lowered, including those that are boom-supported, self-propelled, manually operated, vehicle-mounted and hoists used to raise material and personnel.

## 2.0 SCOPE

This Standard applies to all NB Power employees and contractors who operate this type of equipment.

## 3.0 REFERENCES

|                |  |
|----------------|--|
| CSA B354.7-17) | Safety Principles, inspection, maintenance and operation   |
| CSA B354.8-17  | Mobile elevating work platforms-operator (driver) training |
| CSA B354.4-02  | Boom type aerial platforms                                 |
| CSA-Z256       | Safety Code for Material Hoists.                           |
| CSA-Z185-M87   | Safety Code for Personnel Hoists Scope                     |
| HSEE-03-34     | Barrier tape Standard                                      |
| HSEE-03-01     | Hazard Identification Assessment and Mitigation Standard   |
| Form 1015      | Working Near Overhead Power Lines WELL Sheet               |
| Form 1001      | AWP & MEWP Crane Supported Work Platforms– WELL Sheet      |

## 4.0 TERMS AND DEFINITIONS

|                                       |   |
|---------------------------------------|---|
| Aerial Lift / AWP                     | A vehicle-mounted device, telescoping or articulating, or both, used to position personnel. They include the following types of vehicle-mounted aerial devices used to elevate personnel to jobsites above ground: extendible boom platforms, aerial ladders, and articulating boom platforms. Commonly used terms include, snorkel lift, and high-lift boom truck. |
| Mobile Elevating Work Platform / MEWP | a machine/device intended for moving persons, tools, and material to working positions, consisting of at least a work platform with controls, an extending structure, and a chassis. Commonly used terms include vertical tower, scissor lift, and spider lift.   |
| Competent Person                      | a person who is qualified, based on knowledge, training and experience, to do the work assigned in a manner that will ensure the health and safety of persons.  |

## **5.0 ROLES AND RESPONSIBILITIES**

### **5.1 Supervisor**

- Plan and direct the work to maintain the requirements of this standard.
- Ensure employees are competent for the task being performed
- Assess safe use of the equipment (WELL sheet is available)

### **5.2 Employee**

- Comply with the requirements outlined within this standard.
- Work only within competencies held and advise front line supervision when additional training is required to safely execute work.
- Ensure pre-use inspection is completed and documented.
- Use required fall arrest system. (100% tie-off is required).
- Follow any instruction, education and training in operating the equipment
- Be aware of changing conditions.
- Report to your employer or supervisor any known hazards.

## **6.0 STANDARD**

No modifications or additions that affect the capacity or safe operation of the equipment will be made without the manufacturer's written approval. If such modifications or changes are made, the capacity, operation, and maintenance instruction plates, tags, or decals must be changed accordingly.

Throughout this document, aerial lift and MEWP's will be identified as Equipment.

Prior to beginning work, operations involving aerial lifts and mobile elevating work platforms, hazards must be identified with controls on the tailboard.

Mobile elevating work platforms may be a hazard for employees when not used, maintained, or stored adequately. Manufacturer's instructions and limitations of the equipment must be followed. To prevent injuries multiple factors must be considered, such as:

- Does the equipment have the lifting capacity?
- What is the condition of the surface that the equipment is travelling or stationed on?
- Does the operator have the knowledge and training to carry out the task safely?

Other factors include the weather, obstructions, materials to be lifted, and other employees working near the equipment.

*Note: Never operate equipment if you have not been trained or if you are not comfortable operating it. Even if you are qualified to operate it, take time to familiarize yourself with the*

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*operating characteristics of the equipment you are currently using, especially if it is different from the type of equipment you have previously used. The safety of you and others on site depends on the competent, knowledgeable operation of equipment*

## 6.1 General Requirements

Before being authorized to operate a particular make or model of MEWP, it is the Employer's responsibility to ensure that all operators are trained and given adequate time to undertake familiarization on the use of the machine with a competent person. Familiarization should follow on from basic training and should cover:

- manufacturer's instructions and warnings;
- features of the specific model of MEWP;
- the control functions particular to the specific model of MEWP;
- the function of each safety device; ■ the emergency lowering procedures.

Equipment must be maintained and repaired in accordance with the manufacturer's requirements.

**Note:** *Insulated portions of Aerial Lifts must not be altered or damaged by use that reduces the insulation capability of the unit.*

## 6.2 Inspections

- Equipment received for use (through purchase, contractual obligations, or rentals) must receive an initial inspection before being placed into operation to verify that there are no mechanical defects or safety deficiencies; results of this inspection must be documented, and records provided to NB Power prior to the commencement of work activities with the equipment.
  - If the equipment warrants service or repair, it will be rejected (before unloading/use) and returned to the lessor or owner. The lessor/owner will be notified before such action and, if possible, be allowed to make necessary repairs at their own expense. A copy of the inspection report, noting all deficiencies will be transmitted to the lessor/owner.
  - When equipment becomes damaged or in need of repair, a documented inspection must be completed before the equipment is returned for use. This inspection will include reviewing prior inspection forms to ensure corrective actions have been addressed.
  - Before use on each shift, the operator will complete a pre-use inspection of the equipment to verify that the unit is in a safe operable condition.
  - If a machine is noticed to be deficient during operation, the operator must cease operation and contact the immediate supervisor. Do not operate until proper repairs have been made.
  - Inspect the work area environment before operating the Equipment, check the work area for the following:
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- 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 all forces imposed by the platform in every operating configuration
- Wind and weather conditions
- Sensitive equipment in the work area (i.e. Fire sprinklers, etc.)

### 6.3 Operation of Equipment

Equipment will be operated in accordance with the requirements contained in this standard, training courses, and the manufacturer's operating instructions.

Operate Equipment on level surfaces or within the slope limits given by the manufacturer. Always use wheel chocks when working on inclines.

Set brakes and fully extend outriggers (if equipped), position on stable surfaces, or use pads/appropriate cribbing arranged in a stable configuration.

**Note:** *If the outriggers cannot be fully extended, operate within limitations specified in the manufacturer's operating manual.*

Ensure the area surrounding the lift is clear of personnel and equipment before lowering the platform, or position barriers around the Equipment.

Provide safety barriers around aerial Equipment operated in congested / restricted areas so personnel cannot be caught between rotating equipment and adjacent fixed objects.

Stand on the floor of the lift and do not sit or climb on the edge or handrail. Do not climb out of the lift or use planks, ladders, or other devices, to reach the work location.

**Note:** *If you must transition out of a lift to gain access to an adjacent structure:*

- *the safe transition must be discussed during the tailboard*
- *100% tie off is required*
- *must be conducted with a written safety procedure, detailing the fall protection plan for the activity*
- *an approval letter from the equipment manufacture.*

For elevated work platforms, fall protection is required when the manufacturer has provided a designated anchorage point and has specified in the operating manual that fall protection is required.

A rescue plan must be developed and documented before operating the equipment. The minimum requirement is to have a ground person in the immediate vicinity that is competent

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at operating the ground controls should there be an emergency where the operator in the platform is unable to operate the unit. A thorough risk assessment (see HSEE-03-01) is to be done to determine if an additional rescue plan may require any other type of rescue (e.g., technical rescue, another equipment. etc.)

Do not tie off to an adjacent pole, structure, or equipment while in a lift.

Only tools and materials required for the task are permitted to be raised in a lift. Secure loads and tools on the platform so that machine movement won't dislodge them.

Do not exceed the load capacity of the lift.

Do not move Equipment while elevated when the platform is occupied unless the equipment is specifically designed for this type of operation.

**Note:** *For aerial equipment, when the boom is completely retracted and resting in the transport cradle, employees may stay in the bucket/platform for simple relocation movements.*

Equipment that can be moved in elevated positions must have interlocks that keep the unit from moving or controlling the speed to a rate that does not affect stability when the platform is raised.

Booms and outriggers must be secured in accordance with the manufacturer's instructions before over-the-road transport.

## 6.4 Working Near Overhead Power Lines

Always check for overhead powerlines before moving the machine or operating the platform. You must observe the minimum permitted distances from overhead powerlines

TABLE 1 - Minimum Approach Distances for Personnel & Equipment \*\*

Revised January 2013

| Voltage<br>(Phase to Phase) | A‡                             |       | Bð   |      | Cs                    |      |
|-----------------------------|--------------------------------|-------|--|------|-----------------------|------|
|                             | Qualified Electrical Persons µ |       | MAD Qualified Persons,<br>Utility Arborists,<br>Pole Setters |      | Unqualified Persons** |      |
|                             | ft                             | m     | ft   | m    | ft                    | m    |
| Up to 750V                  | 1ft                            | 0.31m | 2ft  | 0.6m | 3ft                   | 0.9m |
| 750V to 15kV                | 2ft 1in                        | 0.65m | 3ft  | 0.9m | 12ft                  | 3.6m |
| 16kV to 25kV                | 2ft 7in                        | 0.77m | 4ft  | 1.2m | 12ft                  | 3.6m |
| 26kV to 69kV                | 3ft 3in                        | 0.95m | 5ft  | 1.5m | 12ft                  | 3.6m |
| 70kV to 138kV               | 3ft 7in                        | 1.09m | 6ft  | 1.8m | 17ft                  | 5.2m |
| 139kV to 230kV              | 5ft 3in                        | 1.59m | 7ft  | 2.1m | 17ft                  | 5.2m |
| 231kV to 345kV              | 8ft 6in                        | 2.59m | 12ft   | 3.7m | 20ft                  | 6.1m |

\* Cranes, excavators, dump trucks, man lifts, tools, etc.

† Distances are phase to ground clearance for selected phase to phase voltage

‡ Based on IEEE Std 516-2009

ð Based on NB OHS A General Regulation 91-191, section 371

µ Based on NB OHS A General Regulation 91-191, section 289

¶ Certified A Lineperson, Electrical Mechanic, Power Line Technician, Relay Technician, and their apprentices

\*\* Minimum Approach Distances for Unqualified person/Equipment can be reduced when under the direct supervision of a Qualified Electrical or MAD Qualified Person

## 6.5 OPERATION — Material / Personnel Hoists

Rated load capacities, manufacturer recommended operating speeds, special hazard warnings, operating rules, signal systems, and operating instructions must be conspicuously posted at the operator's station for the hoist, or on the car frame or crosshead.

**Wire Rope** with defects must be removed or replaced immediately. If one wire rope in a set requires replacement, the entire set of ropes must be replaced.

Any of the following defects will render the wire rope unfit for use:

- **Corrosion** – any development of slight corrosion shall be documented on the daily pre-use inspection report by the Competent Person and watched closely. Severe corrosion is cause for replacement.
- **Broken Wires** – one or more valley breaks, 6 randomly distributed broken wires in one rope lay, or 3 broken wires in one strand in one rope lay is cause for replacement.
- **End Attachments** – development of broken wires near attachments is cause for replacement. If this condition is localized in an operating rope and the section in question can be eliminated by making a new attachment; this may be done rather than replacing the entire rope.
- **Abrasion** – abrasion, scrubbing, flattening, or peening that causes loss of more than one-third of the original diameter of the outside wires is cause for replacement.
- **Kinking** – severe kinking, crushing, bird caging, or other damage resulting in the distortion of the rope structure is cause for replacement.
- **Heat Damage** – evidence of heat damage resulting from contact with a torch, or any damage caused by contact with electrical wires is cause for replacement.
- **Reduced Rope Diameter** – cause for replacement if the reduction from the normal rope diameter is more than:

No person is allowed to ride on a material hoist except for the purpose of inspecting or maintaining the hoist. A sign stating “No Riders Allowed” must be posted on the car frames or crosshead.

Entrances to material hoist ways must be protected by gates or bars that:

- Guard the full width of the landing entrance
  - Are equipped with a latching device
  - Are painted with contrasting colors
-



Title:  
Aerial Lifts, Mobile Elevating Work Platforms (MEWP), and  
Material/Personnel Hoists

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## 7.0 TRAINING

- Only qualified persons shall operate Equipment.
- Operators of the equipment must familiarize themselves with the manufacturer's operating instructions for the specific equipment being operated.

## 8.0 APPENDIX

Appendix A – Working near Overhead Power Lines WELL Sheet

Appendix B – Powered Mobile Equipment WELL Sheet

Appendix C – Example of manufacture's letter

A handwritten signature in black ink, appearing to read "Rod Roy".

Director of Total  
Health & Safety

## DOCUMENT APPROVAL/REVISION

| Revision # | Date       | Revision Summary | Author  | Reviewed By   | Approved By |
|------------|------------|------------------|---------|---------------|-------------|
| New        | 2022-01-26 | New              | A. Munn | H. Georgiadis | R. Condon   |
|            |            |                  |         |               |             |

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Title:  
Aerial Lifts, Mobile Elevating Work Platforms (MEWP), and Material/Personnel Hoists

## Appendix A – Working near Overhead Power Lines WELL Sheet



Form/Formulaire #: 1015  
Revision: 2021/11

### Working near Overhead Power lines – WELL Sheet

|                          |  |            |           |            |
|--------------------------|--|------------|-----------|------------|
| <b>Date:</b>             | <b>Job:</b>  |            |           |            |
| Observation team member: |  | Signature: |           |            |
| Observation team member: |  | Signature: |           |            |
| Observation team member: |  | Signature: |           |            |
| <b>Location of Work:</b> |  | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| 1.                       | Any above ground line, whether high voltage, low voltage, or communication cable is classified as an overhead power line and afforded due caution. This also includes poles, guy wires, underground anchors, and any such structural member that constitutes to the structural integrity of the power line.  |            |           |            |
| 2.                       | All work within 'limits of approach' of overhead power lines is performed under an approved JSA.   |            |           |            |
|                          | <b>NOTE:</b> <i>Driving a vehicle that does not have the capability of any part of it rising up under an overhead power line does not require a JSA. A vehicle that does have the capability of any part of it rising up under an overhead power line (such as a mobile crane or dump truck) "may" require a JSA, depending on driving conditions and/or circumstances</i> |            |           |            |
| 3.                       | All lines have been considered energized unless confirmed in writing that they are not energized and that the lines are grounded at the point of operation.  |            |           |            |
| 4.                       | Before work has begun that a tailboard has been completed identifying and communicating to each employee the task steps to be completed, the hazards and risks associated with the task, and the safe work practices that are to be applied to complete the task safely. If there is any risk of contact, the electrical supply must be turned off and isolated.           |            |           |            |
|                          | <b>NOTE:</b> <i>Consult with Total Health &amp; Safety (Safety Specialist) and/or other SME(s) as necessary to verify these criteria.</i>  |            |           |            |
| <b>Comments:</b>         |  |            |           |            |





Title:  
Aerial Lifts, Mobile Elevating Work Platforms (MEWP), and  
Material/Personnel Hoists

## Appendix B – Powered Mobile Equipment WELL Sheet

|                          |  |             |  |            |           |            |
|--------------------------|--|-------------|--|------------|-----------|------------|
| <b>Date:</b>             |  | <b>Job:</b> |  | <b>:</b>   |           |            |
| Observation team member: |  |             |  | Signature: |           |            |
| Observation team member: |  |             |  | Signature: |           |            |
| Observation team member: |  |             |  | Signature: |           |            |
| <b>Location of Work:</b> |  |             |  | <b>Yes</b> | <b>No</b> | <b>N/A</b> |
| 1.                       | Inspect Mobile Equipment and all attachments daily prior to commencing work. Document inspection, and review maintenance logs prior to operation.                          |             |  |            |           |            |
| 2.                       | Do not operate the equipment if any defects are found. Report the defects to the Equipment Department and the HSE Department – review maintenance logs prior to operation. |             |  |            |           |            |
| 3.                       | Limit the speed at which the equipment is operated, especially when loaded   |             |  |            |           |            |
| 4.                       | Before lifting a load assess the weight of the load to make sure it complies with the equipment's max. capacity  |             |  |            |           |            |
| 5.                       | Ensure that loads are balanced to prevent them shifting during operation.  |             |  |            |           |            |
| 6.                       | Never drive with a load raised higher than is required for adequate ground clearance.  |             |  |            |           |            |
| 7.                       | A qualified spotter shall be in attendance when the loader is working with restricted visibility.  |             |  |            |           |            |
| 8.                       | Do not use the Mobile Machinery for lifting workers to elevated platforms or work areas.   |             |  |            |           |            |
| 9.                       | Seatbelts shall be worn always while operating.  |             |  |            |           |            |
| 10.                      | Ensure all loads are secured with tiedowns   |             |  |            |           |            |
| 11.                      | When parking the equipment ensure that the parking brake is applied and that the load bucket is on the ground.   |             |  |            |           |            |
| 12.                      | Always obey the project / facility traffic controls and speed limits.  |             |  |            |           |            |
| 13.                      | Powered mobile equipment is only to be operated by competent employees   |             |  |            |           |            |
|                          | <b>NOTE:</b> Consult with Total Health & Safety (Safety Specialist) and/or other SME(s) as necessary to verify these criteria.   |             |  |            |           |            |
| <b>Comments:</b>         |  |             |  |            |           |            |

Title:  
Aerial Lifts, Mobile Elevating Work Platforms (MEWP), and  
Material/Personnel Hoists

## Appendix C – Example of Manufacture’s Letter

JLG Industries, Inc. ■ 13224 Fountainhead Plaza, Hagerstown, MD 21742 ■ Telephone: 240-420-2961 ■ Fax: 240-420-8719 ■ [www.jlg.com](http://www.jlg.com)

Product Safety & Reliability Department  
Telephone: 877-JLG-SAFE  
Facsimile: 301-745-3713  
E-mail Address: [productsafety@jlg.com](mailto:productsafety@jlg.com)



**Attn: Safety Manager or Service Manager**

**Subject: Transferring to a Structure From the Platforms of JLG Products  
While Elevated**

Pursuant to inquiries for information regarding the noted subject, the JLG Industries, Inc. Product Safety & Reliability Department submits the following:

JLG Industries, Inc. requires owner, user, operator, lessor and lessee compliance with all applicable regulations (employer, local, state, and national) pertaining to the utilization of aerial work platforms.

When transfer is necessary, enter/exit through the gate only with the platform within 1 foot of a safe and secure structure. 100% tie-off is also required in this situation utilizing two lanyards. One lanyard must be attached to the platform with the second lanyard attached to the structure. The lanyard connected to the platform must not be disconnected until such time as the transfer to the structure is safe and complete.

While there is no specific regulation regarding transfers, OSHA has provided to JLG the above information as the guidelines utilized by OSHA personnel.

The current owner, operator, and user is responsible for the safe and proper utilization of the subject lift. JLG Industries, Inc. assumes no responsibility or liability for any and all incidents involving personal injury, property damage, or equipment damage which may occur when transferring to a structure while elevated. Should you have any additional questions, please advise.

Sincerely,

JLG INDUSTRIES, INC.  
Product Safety & Reliability Department