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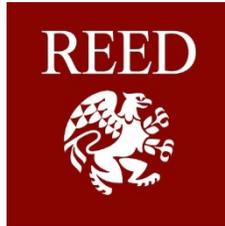
POWERED MOBILE ELEVATING WORK PLATFORMS (MEWP) SAFETY PROGRAM



REED COLLEGE
AN OREGON EMPLOYER



FEBRUARY 2020

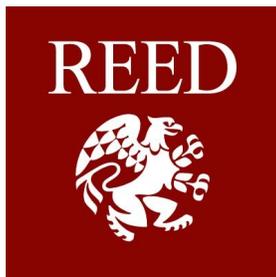


POWERED MOBILE ELEVATED WORK PLATFORM OPERATION PROGRAM

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POWERED MOBILE ELEVATED WORK PLATFORM OPERATION PROGRAM

The Reed College written *Powered Mobile Elevated Work Platform Operation Program* establishes guidelines for its operators, training and record-keeping personnel. The program is recognized as Reed College' standard for operating procedures in order to promote the following:

- Provide a safe Powered Mobile Elevated Work Platform work environment
- Certify and govern safe operator use of powered industrial Powered Mobile Elevated Work Platforms
- Ensure proper care and maintenance of Powered Mobile Elevated Work Platform equipment

These guidelines are designed to insure that Powered Mobile Elevated Work Platform safety training, operation, and maintenance practices are clearly communicated, understood and obeyed.

1.0 ADMINISTRATIVE DUTIES

Environmental Health and Safety staff design, develop, implement and maintain records for the *Powered Mobile Elevated Work Platform Operation Program*. Copies of the written program and safety training materials are kept online in the Environmental Health and Safety Google Drive.

2.0 TRAINING

Training is Conducted for Operators, Occupants and Supervisors

Supervisors may designate new potential operators to the Manager during the year for immediate certification. All new operators will receive training regardless of previous experience. Supervisors are responsible for their employees' adherence to policies.

Initial Operator Training

Initial operator training consists of both classroom and practical training. Classroom training includes: trainer presentation and video, trainee feedback through discussion, oral or written test, and evaluation of course content and learning preferences.

Classroom training:

- General Powered Mobile Elevated Work Platform operation information
- Inspections and maintenance
- Vehicle capacity and stability
- Standard Operating Procedures
- Recharging
- Personal fall restraint and arrest system inspection, care, use and performance
- Workplace-related topics (determined from open classroom discussions)

Practical training:

- Inspection
- Vehicle capacity/limitations
- Vehicle stability
- Controls and Instrumentation
- Steering and maneuvering.
- Operation on sloped surfaces
- Workplace-related topics (determined from open classroom discussions).



The Operator is responsible for ensuring every occupant in the platform knows how to work safely on the MEWP. There must be someone on the ground who can act as the operator and return elevated workers to the ground in the event of an unexpected malfunction or an emergency.

Operators are responsible for familiarizing themselves with any MEWP they are not familiar with including:

- Reading the operator manual
- Doing a walk-around inspection
- Familiarizing themselves with the controls
- Understanding any limitations of the equipment

Occupants

For purposes of MEWP training, an “occupant” is anyone on the MEWP platform who is not an operator. Occupants must receive training on:

- Fall protection systems.
- What to do if the Operator can no longer operate the lift.

Supervisor Training

For purposes of MEWP training, a “supervisor” is a person assigned to monitor operator performance and supervise MEWP work. In other words, it’s the person(s) who directly supervises MEWP operators and occupants. Supervisors at Reed are the Maintenance Supervisor, Building Services Manager, Custodial Shift Supervisors, Theatre Technical Director, and Audio-Visual Manager. Repairs and annual inspections are reported to and handled by Environmental Health and Safety staff. Supervisors at Reed College are trained to know:

- What type of MEWP is appropriate for the job.
- The rules, regulations and standards that apply to MEWPs including the safety procedures defined in the risk assessment (described above).
- The hazards associated with MEWPs and how to prevent accidents.
- Ensuring the operator manual is safely stored, easily accessible and used for inspections.
- Confirm maintenance technicians are trained to inspect and service the MEWP according to manufacturer’s recommendations.

Training for Maintenance and Repair Personnel

Reed College maintenance personnel:

- a) Evaluate any MEWP put into use after being out of service for three months or more.
- b) Are trained on any new load related features that they may be unfamiliar with such as a load limit alarm, tilt sensor and wind speed sensor.
- c) Assure that new equipment from manufacturers adhere to required standards. (Note: existing equipment does not need to be retrofitted to meet new standards).



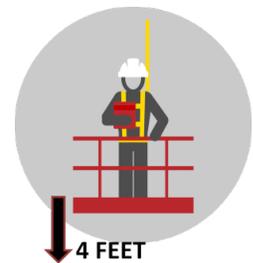
MEWP equipment acquired after December, 2019 must:

- a) Have a gated entrance to the work platform (chains are no longer permitted).
- b) Conform to the specific equipment's required lift and load speeds.
- c) Have foam-filled or solid tires if used on rough terrain.
- d) Have the minimum height for equipment platform railings: 43.5 inches.
- e) Have load limit, tilt and wind speed sensors and alarms and control constraints. New equipment must have a tilt sensor alarm and system to disable boom functions if the machine exceeds its slope limit. MEWPs designed to be used outdoors must have a wind-speed sensor to reduce load capacities and enhance safety in windy conditions.

Reed College provides training programs for its employees who might be exposed to fall hazards including Powered Mobile Elevated Work Platform operators. Hazard recognition and protection procedures are included in the training and are established in the Reed College *Fall Protection Program*.

Fall protection employee training covers the following areas:

1. The kind of fall hazards in the work area
2. The correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems
3. The use and operation of controlled access zones and guard-rail, personal fall arrest, safety net, warning line, and safety monitoring systems
4. The role of each employee in the safety monitoring system when the system is in use
5. The limitations on the use of mechanical equipment during the performance of elevated operations on low-sloped surfaces
6. The correct procedures for equipment and materials handling and storage, and the erection of overhead protection
7. Employees' roles in the Reed College *Fall Protection Program*



Additional Fall Protection training details:

1. Only the designated qualified supervisor conducts ALL fall protection training
2. New employees whose duties include work above the heights standard are oriented to the Reed College *Fall Protection Program* as part of the new employee orientation program
3. Every employee whose duties include work above the heights standard is trained in the *Fall Protection Program* at least on an annual basis including Powered Mobile Elevated Work Platform operators
4. Every employee whose duties include work above the heights standard signs-off on all safety training related to fall protection
5. Any employee whose duties include work above the heights standard who has not received appropriate training in the *Fall Protection Program* may not work above height level until the employee has been trained and understands the program
6. The *Fall Protection Program* is based on published standards that govern fall protection. These standards are considered to be a minimum program; the Reed College *Fall Protection Program* has been designed to *exceed* the minimum requirements



➔➔ **Trainer:** Trainer must prepare a written certification that identifies each employee trained and the date of the training. The trainer must sign the certification record.

Training Certification

A Reed College employee who successfully completes classroom training and demonstrates skill mastery during a site-specific practical test may become an Reed College certified operator. Records of operator training, testing and certification are on file in the business office.

Annual Performance Evaluation

Supervisors conduct site-specific evaluations for every operator in the program. Accidents, deficiency in standard operating procedure, or desires for refreshment, are all reasons for retraining. Otherwise, retraining shall occur every four years.

3.0 INSPECTIONS

Pre-Operational Powered Mobile Elevated Work Platform Inspection Procedures

Reed College Managers manage Powered Mobile Elevated Work Platform inspections.

Using the Inspection Checklists (Appendix C) located on each Powered Mobile Elevated Work Platform for driver convenience, Reed College requires operators to perform pre-operational inspections before use. When completing the inspection checklist, a check mark (✓) is used to denote satisfactory, an X mark means discrepancy, and N/A means non-applicable.

Operators are to add comments to describe problems they discover during inspection to aid the troubleshooting efforts of maintenance personnel.

Pre-operational inspection includes:

- ✓ Checking for leaks
- ✓ Checking Tires
- ✓ Checking all fluid levels
- ✓ Checking Hoses/Belts/Cables
- ✓ Checking Horns/Alarms
- ✓ Checking Gauges/controls
- ✓ Checking Safety equipment
- ✓ Checking Steering
- ✓ Checking Brakes
- ✓ Checking for Unusual Noise/Odors



Important Note: Powered Mobile Elevated Work Platforms used 24-hours-a-day shall be inspected before and after each shift.

Periodic Inspection Procedures

Periodic inspections occur in conjunction with maintenance and service schedules, measured in days and hours of operation. Specialized service technicians provide repair beyond recommended service schedules.

4.0 POWERED MOBILE ELEVATED WORK PLATFORM OPERATION

Powered Mobile Elevated Work Platforms (“MEWP”) include vehicle mounted aerial devices used to elevate personnel to job sites above ground.

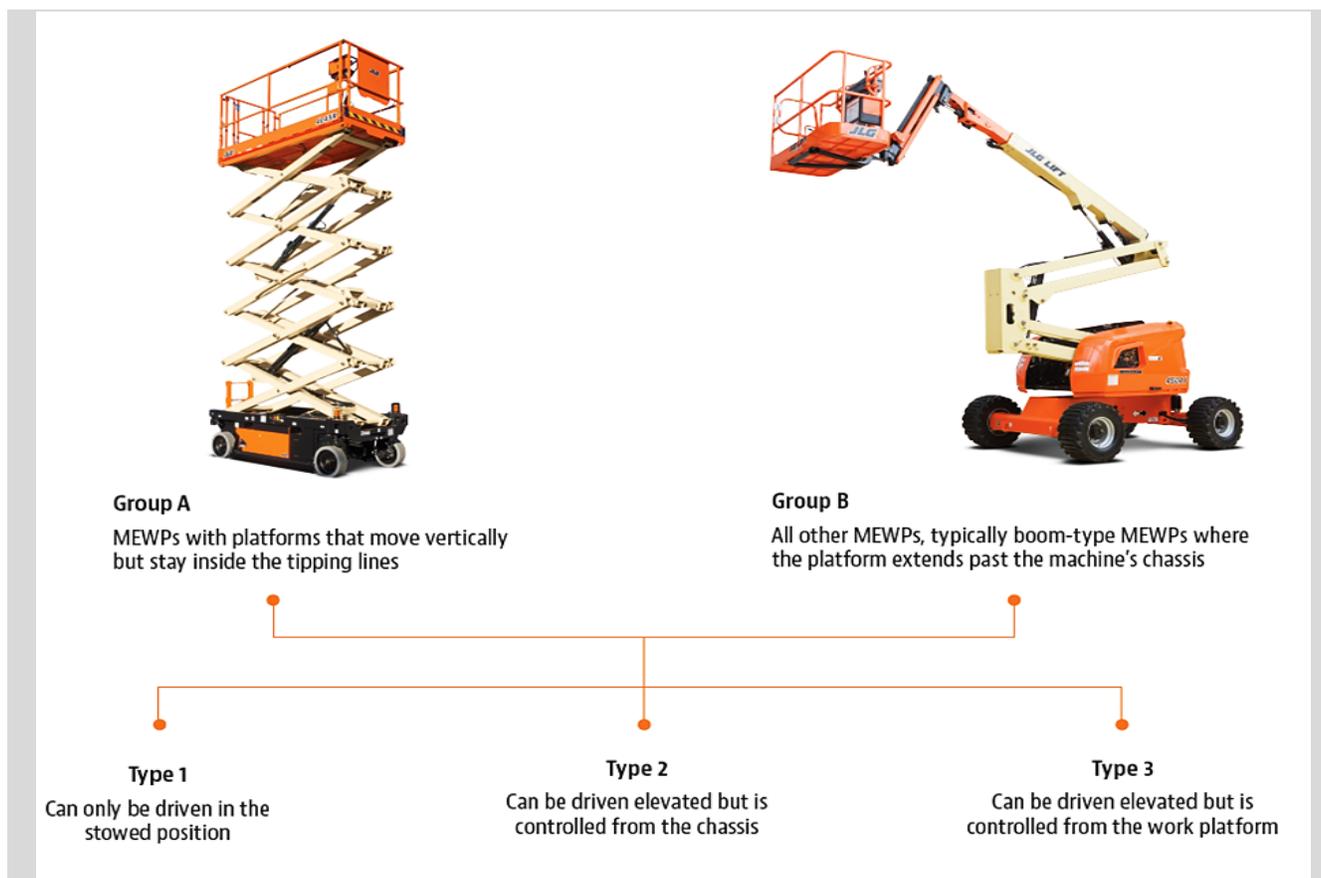


MEWP Groups

- A. If a MEWP moves vertically but within the tipping lines, such as a scissor lift, it is classified as Group A.
- B. If the MEWP can move beyond the tipping lines (outriggers or wheels) it is considered Group B. A boom lift is an example of equipment in Group B.

MEWPS are further classified into Types:

- Type 1: The equipment can only be driven with the platform in its stowed position.
- Type 2: The equipment can be driven elevated but is controlled from the chassis.
- Type 3: The equipment can be driven elevated, controlled from the work platform.



The safe operation of Powered Mobile Elevated Work Platforms is the only way to prevent certain hazards from occurring. Reed College regulates the use of Powered Mobile Elevated Work Platforms in order to ensure that only qualified personnel use them in safe and responsible manners.





MEWP RISK ASSESSMENT AND SITE SAFETY PLAN

Reed College develops a risk assessment and site safety plan that is documented and shared with everyone in the vicinity of the MEWP operating area. This plan is completed before MEWP operation begins and has two main parts (see Appendix D).

Risk Assessment

- A description of the job (work), location and time frame that the MEWP will be operating.
- The risks related to using the MEWP or other equipment, and any hazardous materials.
- Names of the employees who have received the required training.
- Measures to prevent unauthorized use of a MEWP.
- Description of the safe work procedures and safety measures taken to prevent injuries.
- A rescue plan for workers in the event of a fall or if the MEWP breaks down.

Rescue Planning

The rescue plan includes the following required information:

1. What rescue steps are to be taken after a fall (including a time limit for how long a properly-restrained worker can hang suspended in the air, and available options for self-rescue, assisted rescue, or technical rescue.)
2. What rescue steps are to be taken if the platform becomes entangled.
3. What rescue steps are to be taken if the machine fails.

The rescue plan is documented in a written hard-copy format, is included in with the other Reed College training manual contents, and is shared with all employees working in the vicinity of the MEWP operating area. Also, employees in the work area vicinity receive training on what to do if they see someone fall from a MEWP, or if they themselves fall.

Safe Powered Mobile Elevated Work Platform Operating Requirements

- 1) Lift controls must be tested before use;
- 2) Only personnel authorized by a fall protection competent person may operate a Powered Mobile Elevated Work Platform;
- 3) Employees must always stand firmly on the floor of the basket and may not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position;
- 4) A full-body harness must be worn and a lanyard attached to the boom or basket when working from a Powered Mobile Elevated Work Platform (exception: a harness is not required in a scissor lift or personal man lift with surrounding guardrail system and closing gate or latch chain);
- 5) Belting off to an adjacent pole structure, or equipment while working from a Powered Mobile Elevated Work Platform is not permitted;
- 6) Boom and basket load limits specified by the manufacturer may not be exceeded;
- 7) The brakes shall be set and, when outriggers are used, they must be positioned on pads or another solid surface. Wheel chocks must be installed when using a Powered Mobile Elevated Work Platform on an incline;
- 8) A Powered Mobile Elevated Work Platform truck may not be moved when the boom is elevated in a working position, except for equipment which is specifically designed for this type of operation;
- 9) Articulating and extensible boom platforms must have both platform and ground controls;
- 10) Before moving a Powered Mobile Elevated Work Platform for travel, the boom must be inspected to ensure that it is properly cradled and outriggers are in the stowed position.



11) Aerial equipment must have a working back-up alarm or use a spotter for when backing

Minimum Safe Approach Distances (M.S.A.D)

The minimum safe approach distances to energized power lines and parts must be maintained.

Voltage Range (phase to phase)	Minimum Safe Approach Distance
0 to 300 V	Avoid Contact Completely
Over 300V to 50 kV	10 feet



CHECK POINTS FOR POWERED MOBILE ELEVATED WORK PLATFORM OPERATION

- 1) **Before an operation starts, the operator must:**
 - Be qualified and certified for safe operating and use including fall protection standards.
 - Read and understand the operating instructions and safety rules of the equipment.
 - Understand all decals, warnings and instructions displayed on the work platform.
- 2) **Before each work shift starts, the operator must:**
 - Inspect for defects to help ensure safe operation: cracked welds or other frame defects, leaks in hydraulics, damaged control cables, loose wires, worn brakes or bad tires.
 - Test the controls to make sure they work.
 - Check the operating condition of the brakes, lights, horn and other accessories and warning devices.
- 3) **Before each elevation, the operator must:**
 - Check for overhead obstructions and high-voltage conductors.
 - Elevate the work on only a firm, level surface.
 - Make sure the load and its distribution on the platform/bucket is according to the manufacturer's rated capacity. Never exceed the rated work load.
 - Use the outriggers or stabilizers, if required, according to the manufacturer's instructions.
 - Make sure guard rails on platform are installed correctly, and gates or openings are closed.
 - Check all occupants' harnesses and lanyards, making sure they are attached correctly. Don't attach lanyards to objects outside the basket.
 - Lanyards shall not exceed 6 feet in length. Lanyards used on Powered Mobile Elevated Work Platform devices should not exceed 4 feet in length to reduce slack. Lanyard is to be secured to attachment point provided by lift manufacturer.
 - ANSI approved safety glasses and hearing protection must be worn when conditions require protection.
- 4) **Before and while operating a lift with its platform elevated, the operator must:**
 - Look in the direction of and keep a clear view of path of travel. Make sure it is firm and level.
 - Maintain a safe distance from obstacles (ahead and above), debris, holes, depressions, ramps, and other hazards.



- Extend boom only on level surfaces. If boom lift is to be operated where there is an edge that could cause tipping hazard, a warning curb must be installed (minimum 6' to edge).
- Boom lift may travel with boom extended for short distances to complete repetitive tasks.

5) While operating a Powered Mobile Elevated Work Platform, the operator must not:

- Use ladders or makeshift devices on the platform so workers can reach higher.
- Climb up or down extendable arms.
- Sit on or climb on the edge of the basket.
- Delay reporting any defects or malfunctions to the supervisor.
- Engage in stunt driving or horseplay.

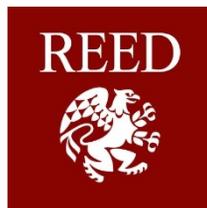
5.0 PEDESTRIANS

Each Powered Mobile Elevated Work Platform at Reed College was purchased or leased for a specific purpose and will function in a specific area most of the time. Occasionally, these machines are operated in locations shared with pedestrians.

Reed College powered industrial Powered Mobile Elevated Work Platform operator must keep a lookout for ALL pedestrians at ALL times and operates these machines defensively.



➔ ***Pedestrians have the right-of-way at ALL TIMES.***





APPENDIX A

 <p>The bearer of this card has completed:</p> <p>Powered Mobile Elevated Work Platform Operator Training</p> <p>and agrees to uphold the standards and practices of safe machine operation at all times.</p> <p>_____.</p> <p>is certified to operate Powered Mobile Elevated Work Platforms at</p> <p>REED COLLEGE</p> <p>Issue date: _____.</p> <p>Trainer <i>Signature</i>: _____.</p>	<p>Back</p> <p>Reed College reserves the right, in its sole discretion, to revoke this card and its privileges if the bearer is operating in a negligent or unsafe manner. This card expires 3 years from the issue date.</p> 
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APPENDIX B

Mobile Elevated Work Platform Checklist **Date:** _____ **Initials** _____

1. Before an operation starts, the operator must:
<input type="checkbox"/> Be qualified and certified for safe operating and use including fall protection standards.
<input type="checkbox"/> Read and understand the operating instructions and safety rules for the equipment being used.
<input type="checkbox"/> Understand all decals, warnings and instructions displayed on the work platform.
2. Before each work shift starts, the operator must:
<input type="checkbox"/> Inspect for defects that would affect a lift's safe operation. Be alert for cracked welds or other structural defects, leaks in hydraulics, damaged control cables, loose wires, or bad tires.
<input type="checkbox"/> Test the controls to make sure they work.
<input type="checkbox"/> Check the operating condition of the brakes, lights and other automotive-operating accessories, such as horns and warning devices.
<input type="checkbox"/> Every occupant in the platform knows how to work safely on the MEWP.
<input type="checkbox"/> Ensure that there is someone on the ground who can act as the operator and return elevated workers to the ground in the event of an unexpected malfunction or an emergency.
3. Before each elevation, the operator must:
<input type="checkbox"/> Check for overhead obstructions and high-voltage conductors.
<input type="checkbox"/> Elevate the work on only a firm, level surface.
<input type="checkbox"/> Make sure the load and its distribution on the platform is according to the manufacturer's rated capacity. Never exceed the rated work load.
<input type="checkbox"/> Use the outriggers or stabilizers, if required, according to the manufacturer's instructions.
<input type="checkbox"/> Make sure guard rails on the platform are installed correctly, and the gates or openings are closed.
<input type="checkbox"/> Check all occupants' harnesses and lanyards, making sure they are attached correctly. Don't attach lanyards to objects outside the basket.
4. Before and while operating a lift with its platform elevated, the operator must:
<input type="checkbox"/> Look in the direction of and keep a clear view of the path of travel. Make sure the path is firm and level.
<input type="checkbox"/> Maintain a safe distance from obstacles (ahead and above), debris, holes, depressions, ramps, and other hazards.
5. While operating a lift, the operator must not:
<input type="checkbox"/> Use ladders or makeshift devices on the platform so workers can reach higher.
<input type="checkbox"/> Climb up or down extendable arms.
<input type="checkbox"/> Sit on or climb on the edge of the basket.
<input type="checkbox"/> Delay reporting any defects or malfunctions to the supervisor.
<input type="checkbox"/> Engage in stunt driving or horseplay.



APPENDIX C

POWERED MOBILE ELEVATED WORK PLATFORM INSPECTION CHECKLIST

Date		Inspector	
Location		Serial #	
Item	Rating: Adequate (A) or Inadequate (IA)	Comments/Follow Up Instructions	
1. Steps			
2. Step Fastenings			
3. Rails			
4. Rail Supports and Fastenings			
5. Rollers and Slides			
6. Belt and Belt Tension			
7. Handholds and Fastenings			
8. Floor Landings			
9. Guardrails			
10. Lubrication			
11. Limit Switches			
12. Warning Signs and Lights			
13. Illumination			
14. Drive Pulley			
15. Bottom (boot) Pulley and Clearance			
16. Pulley Supports			
17. Motor			
18. Driving Mechanism			
19. Brake			
20. Electrical Switches			
21. Vibration and Misalignment			
22. Skip on up or down run when mounting step			
Inspector		Date	



APPENDIX D

MEWP RISK ASSESSMENT AND SITE SAFETY PLAN

Risk Assessment
Describe the nature of the job (work), location and time frame that the MEWP will be operating. Nature of the Job:
Location:
Time Frame Start: _____ am / pm Stop: _____ am / pm
Describe the risks related to using the MEWP on this work job and any hazardous materials.
Describe the measures to prevent unauthorized use of a MEWP.
Describe the safe work procedures and safety measures taken to prevent injuries. <input type="checkbox"/> Training <input type="checkbox"/> Other: : <input type="checkbox"/> Barriers <input type="checkbox"/> Other: :
Rescue Planning
Describe the rescue steps are to be taken after a fall from a MEWP occurs. 1. _____ 2. _____ 3. _____ 4. _____
Describe time limit for how long a properly-restrained worker may hang suspend in the air: _____ mins.
Describe the options for self-rescue, assisted rescue, or technical rescue are available.
Describe the rescue steps are to be taken if the platform becomes entangled.
Describe the rescue steps are to be taken if the machine fails.

