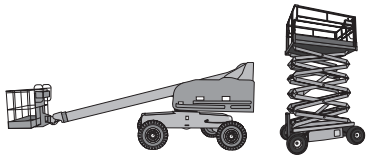
MOBILE ELEVATING WORK PLATFORMS (MEWPs)

Supervisor's Operational Safety Reference



This Operational Safety Reference is intended to provide personnel who supervise MEWP operators and/or have responsibility over MEWP operations with basic information on what should be observed in a workplace that uses and operates MEWPs correctly.

DO NOT USE THIS DOCUMENT AS AN OCCUPATIONAL SAFETY AND HEALTH COMPLIANCE CHECKLIST OR AS AN OPERATOR EVALUATION FORM.

	ITEM
1	The proper type of MEWP for the task(s) to be performed selected.
2	The work being done with the MEWP is performed in accordance with industry safe use standards and the instructions of the manufacturer.
3	Operators and work platform occupants authorized, trained and familiarized as appropriate.
4	Emergency ground personnel selected/assigned.
5	Risk Assessment completed, documented and communicated.
6	All MEWPs have current required inspections.
7	Equipment pre-use inspections completed and documented.
8	Worksite inspections completed and documented.
9	Inspection items requiring attention dealt with.
10	Personal fall protection systems used properly.
11	Drive speeds that allow safe stops.
12	Equipment is moved safely and smoothly.
13	Operators look in the direction of travel before/during movement (Fwd/Rev/Up/Dn).
14	Operators warn others prior to machine movements.
15	Platform occupants keep both feet firmly planted on the platform floor.
16	Equipment is positioned/configured properly for the lift.
17	Equipment is used as designed and within capacity.
18	Platform positioned as low as safely possible while traveling.
19	Boom retracted before lowering (where possible).
20	Proper pedestrian procedures used.
21	Grades traversed correctly.
22	Correct parking/shutdown procedures followed.
23	Alertness control and safe habits consistently demonstrated.
24	As a supervisor of MEWP operators, you have received the training specified in the applicable ANSI standards.
25	Other:

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Supervisor's Operational Safety Reference
Mobile Elevating Work Platform (MEWP) User Guide

This User Guide contains explanatory information related to the items listed in the Supervisor's Operator Safety Reference – MEWPs document produced and distributed by IVES Training Group. This document is designed to support the safe operating procedures advocated within the IVES Training System™ in accordance with current industry standards and best practices.

This is not an exhaustive list of operational competencies but rather a quick reference to some of the main operational competencies that a properly trained operator must be able to demonstrate on an ongoing basis. It also includes non-operational, administrative information regarding the duties and responsibilities of those who supervise MEWP operations.

1. **The proper type of MEWP for the task(s) to be performed selected.** This is a critical step toward ensuring the overall safety of those working on and/or around the MEWP. There are many variations in the design of MEWPs relative to the types of tasks to be performed and the environments they are intended to be used in.

   For example, when working indoors on a surface that is flat, hard, level and dry a zero-emissions electric powered unit with solid tires would be preferable to a noisy, exhaust-generating internal combustion (IC) engine-powered unit. Just be sure it stays indoors as the solid tires will not work properly on any kind of non-improved driving surface. In addition, indoor units may not have the wind rating needed to work outside in the weather.

   Likewise, if the task calls for traveling outdoors over rough terrain or grades then an IC unit with foam-filled or solid-pneumatic tires and an appropriate wind rating would be more suitable.

   In either case, you must consider the specifications of the MEWP to be used as they relate to the height of the work location to be accessed, the total weight of the materials and personnel that will occupy the work platform and the number of platform occupants required for the task. In addition, consider the terrain, grade and support conditions of the work area as well as the travel path the MEWP must use to and from it. Wind and weather conditions are always concerns as well as many other factors that could affect the safety and stability of the MEWP.

2. **The work being done with the MEWP is performed in accordance with industry safe use standards and the instructions of the manufacturer.** In the USA and most of Canada, the provisions of ANSI/SAIA A92.22 address the safe use requirements for MEWPs while in other parts of Canada, federal and/or provincial health and safety regulations call for compliance with CSA B354.7 for safe use.

3. **Operators and work platform occupants authorized, trained and familiarized as appropriate.** MEWP operators must be trained, evaluated and authorized before operating a MEWP and familiarized with any MEWPs they are directed to use after initial training. Work platform occupants must receive training in safe work procedures while working on a MEWP and at least one platform occupant other than the operator must be trained in using the controls to lower the work platform in the event that the operator is unable to.

4. **Emergency ground personnel selected/assigned.** There must be at least one qualified person on site who is not working on the MEWP and is capable of utilizing the emergency/ground controls if called upon.

5. **Risk Assessment completed, documented and communicated.** Users of MEWPs must ensure a risk assessment is performed before undertaking any task(s) with a MEWP as part of an over all safe use plan and that the control measures and safe work procedures developed to address hazards defined in the risk assessment are communicated to all those working with and/or around the MEWP.

6. **All MEWPs have current required inspections.** ANSI and CSA standards applicable throughout North America include requirements for MEWPs to receive annual inspections no more than 13 months apart as well as frequent/periodic inspections on units that are out of service for 90 days or more. These intervals may be less in situations of severe conditions or use. Both of these inspections must be performed by a person qualified as a mechanic on the specific make and model of MEWP. In addition, CSA requirements include a special inspection to verify the structural integrity of critical components of the MEWP and its stability as originally manufactured to be performed 10 years after the date of manufacture and every 5 years thereafter.

7. **Equipment pre-use inspection completed and documented.** MEWP operators must perform a pre-use inspection of any unit they are assigned to operate. Such inspections include checking for loose, missing and/or damaged parts, fluid levels and/or leaks, warnings/placards and decals and finally, a check that all powered systems are functional throughout their entire operational range. There is no set time limit for such inspections but performing one on a small to medium sized unit in good repair should not take more than approximately 5 to 10 minutes. Larger, more complicated machines may take up to 15 minutes or more.

   Although it is not mandated by regulation, being able to produce documentation of pre-use inspections is really the only way your company has of proving they are getting done to regulatory officers or other entities that may have reason to inspect your safety program. For this reason, IVES recommends that companies ensure their operators fill out pre-use inspection checklists and that such records are retained for at least 6 months. To download a free equipment pre-use inspection checklist visit *www.ivestraining.com*.

8. **Worksite inspections completed and documented.** In addition to an equipment inspection, MEWP operators must also complete a worksite inspection of the area in which the equipment will be used. As previously mentioned, these worksite inspections should also be documented and kept on file for at least 6 months (recommended). To download a free worksite inspection checklist visit *www.ivestraining.com*.

9. **Inspection items requiring attention dealt with.** As a representative of the company/employer, supervisors must ensure that any potentially hazardous items discovered during an equipment inspection are repaired or otherwise dealt with. If appropriate, the unit involved should be identified as unsafe for use, taken out of service and returned to service only when the appropriate repairs/adjustments have been made by qualified personnel.

10. **Personal fall protection systems used properly.** This system consists of a full body fall protection harness and lanyard connected to the equipment manufacturer's designated anchor point. It must be used by aerial boomlift operators at all times while in the platform to protect them from being ejected while traveling or by other machine movements. Scissor lift operators in most areas throughout North America are only required to use personal fall protection systems when the guard rails are removed or lowered. However, they may also be required to use them if local regulations and/or site conditions or policies require it.

11. **Drive speeds that allow safe stops.** Regardless of the site/environmental conditions or tasks being performed, operators must always be able to stop the equipment in a safe, controlled manner.

12. **Equipment is moved safely and smoothly.** The forces caused by the motion of a MEWP can cause its stability to become dangerously reduced. These forces can be limited by keeping the activation speed of the machine's parts down and by making smooth and gentle turning, stopping, starting motions as well as smooth boom/platform raising, lowering, extending and retracting movements.

13. **Operators look in the direction of travel before/during movement.** Regardless of whether the machine is traveling in forward or reverse direction, or the boom/platform is going up or down, operators must always focus their attention in the direction of travel. Moving the wheels and/or platform over distances of even a few feet without looking in the direction of travel of the wheels and work platform before moving and thereafter is unacceptable. Momentarily looking away from the direction of travel to check environmental or other concerns is acceptable in some instances, but the majority of an operator's attention should always be focused in the direction of travel. Driving off of curbs or elevating too close to overhead power lines are common causes of injury and death that can be easily avoided by checking in the direction of travel.

14. **Operators warn others prior to machine movements.** It is especially important for operators of elevated MEWPs to warn others before moving the machine because they are up in the air and out of sight. People on the ground tend to forget this and therefore occasionally get themselves too close to the equipment because they have no reason to believe it will move. Using barricades, caution tape, cones or spotters can reduce this risk dramatically, but in any case, operators should always warn others before using the equipment by using the horn, their voice or both.

15. **Platform occupants keep both feet firmly planted on the platform floor.** Operators should be able to position the platform of a MEWP on firm, level ground so that they don't have to stand on the guard rails or anything else to gain more height or lean way out of the platform on one foot to reach a work location. Seeing operators/occupants doing these things is usually an indication of poor unit/platform positioning or that they have the wrong unit for the job if it won't go as far up or out as is needed.

16. **Equipment is positioned/configured properly for the lift.** In order to maximize stability, it is better to position a MEWP on firm, level ground as close to the work location as is safely possible to minimize the amount of elevation and/or extension required to access it. Also, positioning a boomlift so as to elevate off of one of the axles rather than off one of the sides, or a scissor lift so that the platform extension deck does not need to be used is preferable, though not always possible. Also, any stability enhancing devices provided by the manufacturer such as extendible axles, outriggers and/or stabilizers must always be used when elevating the platform.

17. **Equipment is used as designed and within capacity.** A MEWP is designed as a personnel elevating device with a specific load capacity and occupancy rating. They should never be overloaded or used/modified to sling (like a crane) or otherwise carry material loads larger than the work platform dimensions unless an approved lifting attachment is used. In addition, the weight of all materials must be spread out and evenly distributed across the deck of the work platform.

18. **Platform positioned as low as safely possible while traveling.** All of the forces that act on the unit and cause stability to decrease are multiplied with the elevation of the boom/platform. The higher it is lifted, the less stable the machine becomes. It is far easier to tip a MEWP over when the boom/platform is elevated than when it is not. Operators should be in the habit of retracting the boom then lowering the platform as soon as reasonably possible and should travel only when the boom/platform is as low as safely possible. If traveling with an elevated boom/platform is unavoidable, it should be done with extreme care and at very low speed. Avoid sudden, abrupt machine movements.

19. **Boom retracted before lowering (where possible).** Since the boom travels up and down in a curved arc, lowering it before retracting will cause the platform/load to move further away from the base which results in reduced stability. With scissor lifts, retracting the platform extension, if applicable, is best practice to maximize stability and capacity and to prevent the platform from striking anything on the way down.

20. **Proper pedestrian procedures used.** Implementing a policy in which pedestrians have the right of way is a sound safety practice. In most cases involving pedestrians, authorities give priority to life over machinery. However, pedestrians should be encouraged to yield the right of way to industrial equipment like MEWPs as they are often invisible to the operators who, even if they do see pedestrians, are often unable to avoid them. Ideally, both should be looking out for each other and when pedestrians and equipment operators encounter one another, operators should stop, make eye contact with the pedestrian and motion (wave or gesture) the pedestrian to cross if it is safe to do so. Pedestrians could also wave the equipment through depending on the situation. It is also advisable for pedestrians to remain within designated walkways and wear high visibility clothing when working near powered mobile equipment like MEWPs.

21. **Grades traversed correctly.** MEWP operators should avoid turning, zig-zagging or any movements other than straight up or down travel on grades. MEWPs must never be elevated off of a position on grades or travel on grades in excess of their gradeability ratings.

22. **Correct parking/shutdown procedures followed.** When parking or leaving a machine unattended (out of sight or 25 ft/8 m or more away) operators must:
    a. Park in a safe area, preferably on firm, level ground.
    b. Retract and lower the boom/platform completely where safely possible.
    c. Shutdown the main power source (engine/battery).
    d. Use proper (3-point) mounting and dismounting procedures.
    e. Turn the key at the lower controls to the OFF position (remove key as required).
    f. Close the propane cylinder service valve (if equipped) if leaving it for more than an hour indoors. It is a good idea to do this with the engine running until it stalls, and then shut the key off.
    g. Recharge batteries at a designated charging area as per manufacturer's instructions.

    If public access is possible:
    h. Lock all access panels/filler caps.
    i. Engage and lock start disable switch (if equipped).
    j. Engage turret lock pin (boomlift only).

23. **Alertness control and safe habits consistently demonstrated.** Long after their training is completed, operators must be able to demonstrate safe operating skills on an ongoing basis. Observe and document operator performance at regular intervals and ensure that those who have close calls or actual damage/ injury-producing incidents receive refresher training and re-evaluation. In areas where only CSA standards are recognized, the time interval for refresher training must not exceed five years.

24. **As a supervisor of MEWP operators, you have received the training specified in ANSI and CSA standards.** If the direct supervision of MEWP operators lies within your area of responsibility you must be trained in the following:

    a. **The proper type of MEWP for the task(s) to be performed selected.** See item 1 for details.

    b. **The rules, regulations and standards that apply to MEWPs, including the provisions for safe use as defined in ANSI A92.22 and CSA B354.7, training and familiarization, and the work being performed.**

    Occupational safety and health regulations across the US and Canada call for compliance with ANSI (American National Standards Institute) or CSA (Canadian Standards Institute). The standards listed in the above paragraph focus on the safe use of MEWPs and Supervisors should be familiar with their contents, as applicable.

    c. **Potential hazards associated with use of MEWPs and the means to protect against identified hazards.**

    The list of hazards here range from ground surface and support conditions to vehicle and pedestrian traffic and everything in between. Users of MEWPs are required to conduct a site risk assessment to identify such hazards as well as the control measures developed to deal with them. This information must be passed along to everyone affected by it including supervisors and MEWP operators.

    d. **Knowledge that the manufacturer's operation manuals are an integral part of the MEWP and need to be stored properly in the weather-resistant compartment on the MEWP.**

    Every MEWP manufacturer must ensure that all the MEWPs are equipped with the unit specific operations manuals and, where applicable, the current ANSI Manual of Responsibilities. Owners of MEWPs must ensure that these manuals remain stored on the MEWP in the designated weather-resistant storage compartment for the life of the MEWP and that the ANSI Manual of Responsibilities is kept current over that same period of time. It is good practice to check and make sure these items are on the MEWP periodically.

25. **Other.** Any other items that may have particular importance at the worksite as they relate to equipment safety.

Comments/Notes. Any thoughts, concerns, observations, etc., as they relate to the use of the Reference.

For more detail than what is provided here, please contact IVES and ask about our Supervisor Training Programs that provide comprehensive information on what every Supervisor of MEWP operators must know.

1-800-643-1144 or info@ivestraining.com