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GUIDE TO NEW DESIGN, SAFE-USE AND TRAINING STANDARDS FOR MEWPS



CSA B354 – User's guide, November 2018. *Document version 1.1*

CURRENT STANDARDS

In Canada, Mobile Elevating Work Platforms (MEWPs), also known as Aerial Work Platforms (AWPs), must adhere to industry standards laid out by the Standards Council of Canada (SCC) and developed by the CSA B354 committee. Standards are important and may establish standardized requirements for design of a product, process or system. They can specify performance of products or personnel. They can also define terms and definitions specific to the standard, so there is no misunderstanding among those using the standard.

The CSA B354 standards provide uniform guidance in the design and manufacturing of equipment, which all manufacturers must follow. The planning and operation for the safe-use of equipment and training requirements aid users in achieving safe and effective use of the equipment. These standards assign responsibilities for various tasks to entities based on their roles – manufacturer, dealer, owner, user, supervisor, operator, occupant, lessor, lessee, broker etc. An individual or company may hold several roles; a user may also be an owner of a MEWP, resulting in responsibilities when acting in the role of an owner of the equipment and responsibilities of a user when as a user, authorizing employees to operate a MEWP.

Previously, CSA B354 standards requirements were specified by equipment classification: B354.1 for manually propelled platforms; B354.2 for scissor-type platforms and B354.4 for boom-type platforms. Each standard dictates requirements for design, safe-use and training to ensure the safe and effective use of each category of machine. These standards have been withdrawn, but CSA C225 for vehicle-mounted platforms remains active.

NEW STANDARDS OVERVIEW

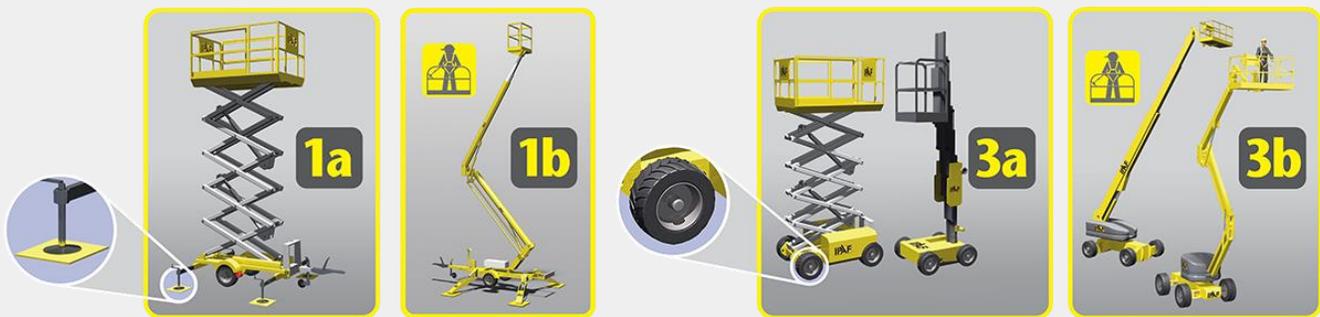
The new CAN/CSA B354 MEWP Design, Safe-use and Training suite of standards **were published in May of 2017**. All industry stakeholders had 12 months from the date of publication to become compliant with the requirements in the suite of standards. The new standards are **CSA B354.6: MEWP – Design, calculations, safety requirements and test methods**; **CSA B354.7: MEWP – Safety principles, inspection, maintenance and operation**; and **CSA B354.8: MEWP – Operator (driver) training**.

The design standard specifies design calculations and stability criteria, construction, safety examinations and tests and is predominately intended for manufacturers; the safe-use standard specifies requirements for application, inspection, training, maintenance, repair and safe operation of equipment and is predominantly intended for owners and users; the training standard provides methods and guidelines to prepare MEWP training materials, defines administrative criteria and delivers elements required for proper training to implement the safe-use standard requirements and is predominantly intended for individuals or companies offering training.

These standards apply to all MEWPs specified in the design standard and have replaced the current standards referenced in the opening section of this document on the effective date and prior standards have been withdrawn. **The effective date was May 2018.**

GENERAL CHANGES

- **Terminology:** Mobile Elevating Work Platforms or MEWPs will be the new universal term for this equipment, replacing Aerial Work Platform (AWP).
- The three **new standards are written by primary task of design, safe-use and training** to replace the three prior standards written by product type – manually propelled, self-propelled booms and scissors, under-bridge inspection devices.
- New safe use and training requirements **apply to new and existing MEWPs.**
- MEWPs manufactured after the effective date shall be compliant to B354.6. Existing MEWPs do not require manufacturing updates to the new standard.
- The new training **classifications are a combination of group and type** – Groups a and b define platform in relation to chassis – a is vertical over the chassis and b is boom that extends beyond the chassis. Types 1, 2 and 3 define travelling, with 1 not able to travel out of stowed position, 2 being where travel is controlled from the chassis and 3 able to travel when elevated:



DESIGN (MANUFACTURE) CHANGES

This section identifies some typical outcomes that will impact users:

- **Active platform load-sensing:** Most machines will actively monitor load and will not operate with normal control functionality when overloaded beyond rated capacity, except emergency controls.
- **New wind force requirements:** Maximum wind rating must be listed at the control position. There is potential for reduced capacity on scissors and vertical platform lifts. MEWPs can be designed for indoor use **ONLY with zero exposure to wind.**
- **New stability test:** Results in foam-filled only (no air-filled) tires on the majority of rough-terrain scissors or booms to maintain high gradeability ratings.
- Chain entrances on scissors and vertical platform lifts are no longer allowed, replaced with **entrance gates with toe boards.** Toe boards will now be required at entrances on all MEWPs.
- In addition to the existing required audible alarm for tilt sensor, MEWPs will be **prevented from certain movements** when reaching allowed limits of chassis inclination.
- A decal or other means must be provided on the MEWP to mark the date of the last **annual inspection** and the date of the next future inspection.



- The operator's manual shall include a listing of MEWP functions, features, operating characteristics, limitations and devices to be included in **familiarization**, making it clear what must be included.
- **Railing heights increased** from 1m (39.5 in) to 1.1m (43.5 in), which may require folding rails for movement through standard doorways on some models.

SAFE-USE CHANGES

- From the effective date, all work at height with MEWPs must follow these safe-use requirements. It is advised to start implementing these as soon as possible for the safety of all involved.
- **Safe-use planning** requires a plan specific to MEWPs to be developed by users to include tasks such as a risk assessment, the selection of the proper MEWP for application, and access, preparation and maintenance of the work site prior to using the MEWP.
- The user shall designate a qualified person to **monitor, supervise and evaluate operators on a regular basis** to ensure proficiency, to be accomplished through visual observation at a minimum, which **shall be documented** for retention by the user. Personnel **directly supervising** MEWP operators require **training** as defined in ANSI A92.24.
- Examples when **retraining** is required are provided.
- There is a new user responsibility to **ensure the operator of a MEWP is physically and mentally capable** to operate the MEWP safely.
- **All modification must be approved by the manufacturer.** New user responsibility to ensure that MEWP supervisors and operators are aware and comply with the requirement that only the MEWP owner can authorize a modification, and this must be approved by the manufacturer. If the user is also the MEWP owner, they can only authorize a modification in compliance with the requirements in the standard.
- Another new requirement is performing a **risk assessment** to include identification of task to be undertaken, selection of appropriate MEWP, assessing risk, developing control measures, and identifying safe work procedures. It is important to recognize that this is required **for all MEWP operations**.
- Included in a risk assessment is the user requirement to develop a **rescue plan** for workers who may require rescue from a platform in elevated position. This includes prior planning to ensure a safe and timely rescue. This must address rescues caused by MEWP malfunction and falls from the work platform.
- Detailed guidance and requirements are provided for **specific requirements of operation** such as wind, storm and ground condition consideration, ventilation, and transporting and travelling on public roads etc.
- The requirement that **exiting a MEWP at height** is only permitted through a procedure provided by the manufacturer now includes "or qualified person", whose procedures must address requirements defined in the standard. If the risk assessment determines that exiting at height is the safest method of work, then this procedure shall be followed when the exit at height is conducted.
- **Electrical hazard** avoidance offers new language to require an operator to stay at least ten feet away from power lines with any part of their body, conductive object or any part of the MEWP (closer only if allowed by a qualified person).
- Users have the ultimate responsibility to ensure operators are trained and familiarized prior to authorization to operate a MEWP. New language requires a user to **request familiarization** from a dealer (rental company) and that this be delivered to the person designated to receive the MEWP. This is a departure from prior language stating it must be provided by a dealer whenever a MEWP is provided. Additionally, a user is required to **allow operators sufficient time after familiarization** to achieve operational proficiency. **Self-familiarization** by an operator is now possible under the standard, if authorized by the user/employer.
- The user shall ensure prior to each operation that the MEWP operator provides instruction or otherwise ensure that all **occupants have a basic level of knowledge** to work safely using the MEWP.



TRAINING CHANGES

- Training must be compliant with the new standards **by the effective date**. Prior training that is compliant with existing standards will require supplemental training to address the new requirements.
- Operator training is **required for each MEWP classification**.
- The user shall ensure that training is **presented in a manner that trainees can understand**.
- Personnel directly supervising MEWP operators shall receive **supervisor training**. This shall include proper MEWP selection, user and operator requirements, how to identify known hazards and the means to manage risk, and how to follow the requirements of the operator's manual.
- If delivering training internally, users must comply with **administration of training** defined in the training standard to include training content, trainer qualification, training environment, testing, and documentation.

BECOMING COMPLIANT THROUGH IPAF TRAINING

The best way to ensure compliance is for operators to hold a PAL Card and supervisors to complete IPAF's MEWPs for Managers course, which fulfils the requirement for MEWP supervisor training. Utilizing the latest generation of online learning tools, IPAF offers operator trainees the option of completing the theory requirement of their training via interactive eLearning. The benefits of eLearning include:

- Trainees complete the module online – anytime, anywhere, on any device and at their own pace;
- Trainees can then complete the supervised hands-on practical test and evaluation at an approved training center to complete operator training;
- Operators don't have to take so much time away from the job to complete training;
- In most cases necessary a hands-on practical test can be concluded comfortably inside a few hours;
- Trainees opting for an instructor-led theory course also benefit from sessions enhanced by the interactive material in the online module;
- Available in English or French.

In addition, IPAF's MEWPs for Managers course fulfils the requirement for MEWP supervisor training. For more information, please visit www.ipaf.org/en-us/m4m

FURTHER INFORMATION AND SUPPORT

This document is intended to raise awareness of the **key changes only** in the new standards; IPAF strongly recommends that you read the full version of the new standards to ensure all responsibilities are addressed.

For further information about the new North American MEWP standards, advice about how to become compliant and membership or training support enquiries, email USA@ipaf.org or visit www.ipaf.org/contact for details of how to get in touch with your nearest IPAF office or representative.