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



CSA B354 – Dealer 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, of which they may hold several – 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 These standards have been withdrawn, but CSA C225 for vehicle-mounted platforms remains active.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

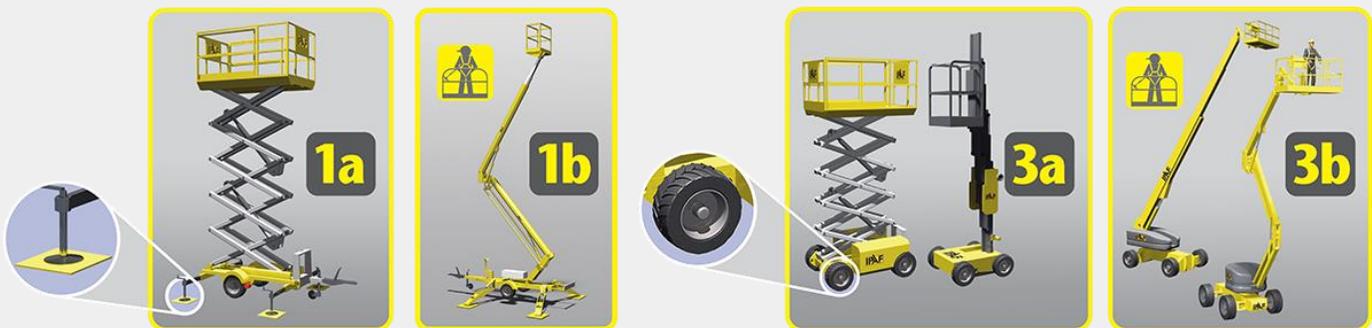
The new CAN/CSA B354 MEWP Design, Safe-use and Training suite of standards **were published in May of 2017**. All industry stakeholders had 12 months from the date of publication to become compliant with the requirements in the suite of standards. The new standards are **CSA B354.6: MEWP – Design, calculations, 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/AWPs specified in the design standard and ultimately replace 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:** There are many **changed terms and definitions** throughout the new standards, such as the introduction of groups, types, load-sensing system, supervisors and occupants. Mobile Elevating Work Platform (MEWP) will be the new 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 four existing 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 should be compliant with CSA 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 is able to travel when elevated:



DESIGN (MANUFACTURE) CHANGES

- **Active platform load-sensing:** Most machines will actively monitor platform load and will not operate with normal control functionality if overloaded beyond rated capacity, except by the emergency controls.
 - **New wind force requirements:** Result in potential reduced capacities 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 shall be prevented from **certain movements** upon reaching the limits of the inclination of the chassis.
 - A decal or other means must be provided to mark the dates of the last and next **annual 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 new models to offer folding rails for movement through standard doorways.



SAFE-USE CHANGES

- From the effective date, all work at height with MEWP must follow these safe-use requirements. It is advised to start implementing these as soon as possible for the safety of all involved.
- Whenever a dealer directs personnel to operate a MEWP (loading/unloading, inspecting, demonstrations or any form of use), the dealer shall assume the responsibilities of users and **must comply with all of the requirements of a user in the safe-use and training standards.**
- **All modifications** must be approved by the manufacturer. If it isn't IDENTICAL to the MEWP as received from the manufacturer, any change can be considered a modification and must get approval.
- When requested by the user, **dealers and owners shall offer familiarization** to assist users and operators comply with their requirements. This is a change from current standards that require a dealer to **provide** familiarization upon delivery by sale, lease, rental or any form of use.
- A **'system of work'** requires a program specific to MEWPs be developed by users to include task such as a risk assessment, the selection of proper MEWP for application, and access, preparation and maintenance of the work site preparation for the use of the MEWP. As a dealer assumes the role of a user anytime personnel are authorized as operators, all user responsibilities must be adhered to when acting as a user.
- A new requirement is performing a **risk assessment** to include identification of the task to be undertaken, selection of an appropriate MEWP, assessing risk, developing control measures and identifying safe work procedures. It is important to recognize this is required **for all MEWP operations.**
- A proper risk assessment requires a **rescue plan** for workers from an elevated platform. This includes planning a safe and timely rescue in case of MEWP malfunction or fall from the platform.
- Detailed guidance and requirements are provided for **specific requirements of operation** that address many known potential hazards such as wind, storms, ground conditions, transporting and travelling on public roads, to name but a few. These requirements must be considered in the risk assessment.
- The requirement that **exiting a MEWP at height** shall only be permitted through a procedure provided by the manufacturer has been expanded to include "or in their absence an engineer". The procedure must address detailed 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. Dealers must be knowledgeable to assist users and operators in meeting their requirements.
- **Electrical hazard avoidance** offers new language to require an users/operators to maintain the minimum safe approach distance (MSAD) from energized conductors at all times. A voltage chart with associated MSAD is provided. In the event the voltage is not known, the maximum distance shall be observed equal to 16M or 52.5 FT.
- ALL users, including dealers who have MEWP operators, shall designate a qualified person to **complete 'on-the-job' operator's performance evaluations** to ensure their compliance.
- **Retraining requirements** now provide several examples when retraining 'would' be necessary, such as observed deterioration of proficiency or involvement in a near-miss or accident

TRAINING CHANGES

- Training must be compliant with the new standards **by the effective date.** Training delivered prior that is compliant with existing standards will require supplemental training to address new requirements.
- Operator training is **required for each MEWP classification.**
The **training standard** defines requirements for standardized **training** through methods and guidelines to prepare MEWP training materials, administrative criteria, and elements required for proper training and familiarization.



- A dealer acting as a user has the responsibility to **ensure that operator of a MEWP is physically and mentally capable** to operate the MEWP safely.
- If a dealer is offering training, they must **ensure the user is aware of their responsibilities** to select personnel who are qualified to perform the task and that the training offered meets the requirement that training provided is **in a manner that trainees can understand** (i.e. language and comprehension).
- The MEWP operator is required to provide instruction or otherwise ensure all **occupants have a basic level of knowledge** to work safely on the MEWP. This requirement must be covered in training courses.
- All users, to include dealers who have MEWP operators, **have many responsibilities and require qualified persons to complete them**, such as risk assessments and operator evaluations. Consideration for personnel training to address user requirements to become qualified may be warranted.
- When delivering training, it must comply with the requirement for **administration of training** to include training content, trainer and examiner qualification, examination, and record keeping.
- NEW requirement that **theory (classroom/online) and practical (hands-on) evaluations to be documented**. NEW annexes provide examples of theory and practical evaluation, MEWP operator cards and authorization to operate cards.

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.