

INNOVATE 2022 WORKSHOP RESULTS

Workshop, Challenge & Awards

September 28, 2022, Chicago, IL, US

The aim of IPAF's Innovate event is to gather stakeholders to address significant industry issues, provide them with the opportunity to share their knowledge and experiences, and collaborate with the goal to develop solutions to improve the safe and effective use of mobile elevating work platforms (MEWPs). Teams worked together in small groups, shared their thoughts and ideas, and applied them to create achievable solutions that could positively impact the issue at hand. This paper provides a summary of each topic that IPAF offers openly to raise awareness, stir ongoing development of ideas and support advancements for the industry's benefit.



Work groups at Innovate 2022 consider key industry challenges

1. TRENDS IN ELECTRIFICATION

Karin Nars, David Webb, Nick Fleischfresser, Shawn Boone, Arne DH, Patrick Witte, Rob Thomas, Matteo Sgaramella, Shawn Gallagher, Dave Koerkenmeir, Tom Trinen

Overview: Electrification is now a global initiative that is having a profound impact on the industry, with the primary objective to reduce greenhouse gasses by eliminating internal combustion engine use. We must consider that this initiative is a government mandate (both emissions and noise, plus no hydraulics), not just a recommendation. In fact, the state of California's goal is to be completely electric by 2035. Simultaneously, some countries' construction sites lack clean, sufficient electric sources, or they are often not brought to the sites until later phases of construction. Infrastructure changes are necessary before construction sites can adapt fully to electrification.

Issue being addressed: There are several issues that make implementation a challenge, such as:

- Acquisition cost: Using lithium ion has higher manufacture costs.
- Added hazard: Lithium has a high cost of disposal and potential hazards of fire, especially while charging.
- Inadequate supporting infrastructure for charging: Moves practical acceptance from difficult to impossible in some cases.

Proposed solution: The primary solution is educating the user/customer through training, increasing their understanding of how 100% electric machines differ from IC ones, and demonstrating why electric is the best option as a machine power source. It is critical MEWP manufactures adopt the forklift industry's concept of design and manufacturing of standardized battery sizes and cases, allowing manufacturers to design MEWPs that allow end users to swap out batteries efficiently and fully charge them consistently.

There is a strategic need to focus on long-term end users and companies with owned equipment fleets, as it will be easier to educate and convince this user group than rental users with large fleets of IC machines.

2. EXITING AN ELEVATED WORK PLATFORM

Jonathon Rauch, Nathan Polonski, Patrick Blackburn, Peter Douglas, Mark Vaughns, Daniel J Moss

Overview: Accident statistics identify falls from an elevated work platform as the leading cause of fatalities associated with MEWP operations, and though data does not specifically identify exiting an elevated platform as the root cause, we know that workers are frequently using MEWPs to access work outside the elevated platform and are thus exposed to greater fall hazards.

Issues being addressed:

- The worksite risk assessment and planning the task are not adequately completed.
- Workers are not being properly supervised for safety vs 'getting the job done'.
- Personnel are not aware of options to make their job safer.

Proposed solutions:

Awareness campaign: Ensure users know how to assess and plan task that require exiting the platform at height and ensure exiting only be permitted through a procedure provided by the manufacturer or qualified person, that address items detailed in industry safe use standards. Further, make aware of safe use practice and guidance, manufacturer approved devices for this task, and empowering workers to advocate for their safety.

Awareness technology: Promote the use of safety app, like ePAL, to inform personnel of precautions to be taken if exiting at height, provide checklist or warning screen to remind the operator to review safety procedures, and to review safety.

Technical Innovations: Develop a wearable device that detect personnel exiting at height and alert them like a seatbelt reminder.

3. RECOGNIZING AND AVOIDING ELECTROCUTION

Sean Ward, Jason Dean, Luis Aguilar, Nate Johnson, Tom Smith, Brian Clark.

Overview: Electrocution is the second cause of fatalities occurring when using powered access machines. This is one of the most hazards inherent in work at height from contact with overhead conductors/powerlines.

Issue being addressed: There is no enforced requirement for operator training by any regulated party. The risk assessment plan is not completed, and the operators of MEWPs are inadvertently coming too close or touching overhead cables.

Proposed solution: The main key in this subject is **TRAINING:**

- We need a governmental body to enforce the requirement for training and qualified operator.
- Need a universally accepted/approved voltage sensor on platforms that warns and/or can disable the MEWP when approaching energized power.
- Site safety risk assessments as part of building permits requirements.
- Public map locations of electrical hazards.
- Rental companies require proof of operator training and evidence of a site risk assessment prior to renting a MEWP

4. PREVENTING WORKERS FALLING FROM MEWPs

- voted #1 by attendees

Don Satterfield, Selvin Young, Amelia Pearce, Antonio Diaz, Saif Imami, Tim Whiteman, Diego Bustamante.

Overview: When working at height in a MEWP, one of the leading causes of death and severe injury is falls from the platform. Falls may be as a result of many factors, such as climbing in or out of the machine, over-reaching, objects hitting the platform (eg, a passing vehicle), driving over unsuitable ground, etc.

Issue being addressed: This type of accidents is more common on boom-type machines, and deaths and injuries mainly caused when the operator is not attached to the designated platform anchorage. Despite being required, operators are not wearing harnesses and/or they are not connecting to the designated anchorage. There are third-party devices being introduced in the market that can act as a car's 'seatbelt' to alert the MEWP operator when they are attached to the required anchorage.

Proposed solution: Provide industry-wide technical fall protection guidance (eg IPAF H1) and include awareness of optional anchor-detection system (eg Fastener Tracker and Harness On). Uniquely provide a spoken audio warning that remind operators to wear a harness and connect their lanyard.

5. OPERATOR TRAINING & RETRAINING

- voted #2 by attendees

Ryan Polonski, Kevin Gern, Robin Paeper, Paul Piotrowski, Bruce DeFord, Giles Councell

Overview: Despite available guidance regarding ANSI operator training and retraining, there are significant numbers of untrained workers being allowed to operate MEWPs. While there are many trainings options out there, it is difficult for MEWP users to know which one is the right one to select. There is no consistency in operator training and retraining options or means assist Users/employers in the selection.

Issue being addressed: Industry stakeholders need to agree it is important that every person who uses a MEWP receives appropriate training; not just the operator but the people around them. With many varying options for training in the market, how can users/employers know which training course is the right one?

Proposed solution: The industry needs to agree of what good training is and **develop a way to certify that individual training courses** meet or exceeds the ANSI training standard requirements, so Users have a clear selection of uniformed, standardized training to choose from. This can apply to operator, supervisor, and others who required training to become qualified for the task. The industry needs to **establish minimum requirements and prerequisites for trainers** who can deliver the certified training course(s)/program(s).

Create industry wide promotion for the benefits of adopting certified training (eg safer employees and fewer breakdowns/downtime).

Engage insurance companies to demand the new ANSI certified level of training.

6. SERVICE TECHNICIAN QUALIFICATIONS & SHORTAGE

Amy Ebbert, Josh Flowers, Don Stanfield, Craig Moslander, Matt Messina, Sean McMahon, Tony Groat.

Overview: There's a shortage of service technicians for MEWPs. This is a global issue and not exclusive to the powered access industry, making to the competition to attract technicians to our industry an increasing challenge. This is aggravated by a aging workforce (29% of technicians are over 55 years old), a growing avoidance by new workers away from jobs that get their hands dirty, and the general perception that MEWP service technician jobs are not a good, well-paid career to enter vs other professions (doctor/lawyer/etc). Further, there is no training certification program to promote new workers to consider preparing for this as a career and to join our industry.

Issue being addressed: There is no industry roadmap to follow to become a “qualified” or “certified” service technician. There is a lack of incentives in place to attract, train and maintain qualified techs and prospects. Employers do not see other options than the path to hire the best candidate available to fill the opening and hope to develop them through “on the job training” that does not have a standard to follow.

Proposed solution: **Establish** an industry-accepted MEWP service technician certification program that can be applied to new and existing service technicians and leverage retiring service techs as mentors (less hours and stress – recognition of the value). **Develop** an industry-wide campaign promoting MEWP service technicians as a rewarding career, not just a job, establishing credential around MEWP technicians, such as a certification specific to MEWP Technician. Pay highest technician rate compared to other industries for technician sector. **Define** cost benefits on longevity of machines to support the investment in service technician promotion and development. Have manufacturers offer incentive for dealers with certified service techs (eg increased parts discount).