

Lanyard safety p8

Harnesses come under the spotlight in IPAF's Big Debate

MEWPs at work in the tree care industry p26

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Think about safety

What's the most dangerous thing you can do on a construction site? The answer is clear: work at height. According to the Health and Safety Executive's official statistics, which were released on 2 November 2016, falls from height continue to cause the largest number of fatalities in the workplace. Of 144 workplace fatalities recorded in the 2015/16 year, 37 were caused by falls from height - 43 of those fatalities were in construction and 18 of those were caused by falls from height.

Why is this? IPAF's research indicates that falls from height are often associated with a lack of planning. Someone is told to "get up there and fix it" without any thought being given to equipment or training. The Work at Height Regulations (WAHRs) clearly state that work at height must be planned and they set out a hierarchy that management should follow – but all too often this is ignored.

What can you do to reduce this unnecessary death toll? Think about how temporary work at height is managed on your site. Supervise it and ensure that all work at height is planned by trained managers who have read the WAHRs. Appropriate use of MEWPs by trained operators under the supervision of trained managers is often the safe and efficient answer. In trained hands, MEWPs are – as the HSE

acknowledges – part of the solution and there are very few fatal accidents involving MEWPs. That said, there are some – this magazine contains a report on a tragic accident that resulted in the death of the operator and the imprisonment of his manager.

However, falls from height are preventable and this magazine is dedicated to providing information about how to work safely at height. It is published by IPAF, a not-forprofit trade association, which is committed to promoting the safe and effective use of powered access. If we, or our members, can assist you with technical support and advice, don't hesitate to contact us!

Best regards, Tim Whiteman CEO & managing director International Powered Access Federation www.ipaf.org

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Andy Access posters promote better safety

Contractors, end-users and rental companies are urged to download free posters for use in their daily operations, as part of IPAF's Andy Access campaign promoting the safe use of MEWPs.

The Andy Access posters communicate the valuable learning outcomes identified from the IPAF accident reporting project, and reinforce the key messages covered in IPAF's training programmes.

You can get Andy Access posters from www.ipaf.org/andyaccess.

IPAF campaign focuses on safe MEWP loading

Almost a third of MEWP-related incidents reported by rental companies involve delivery drivers loading and unloading machines. This is one of the trends identified from IPAF's accident reporting project (www.ipaf.org/incident) and the Federation is working to make MEWP loading and unloading activities safe and effective.

IPAF's campaign highlights the importance of planning the delivery and collection processes. It also clarifies the responsibilities of different parties (including end-users, contractors, rental companies, haulage companies and drivers) to communicate and cooperate to ensure work is done safely and effectively.

"MEWPs are one of the safest tools to carry out temporary work at height, and IPAF wants to keep the industry safe by minimising the potential dangers associated with loading and unloading," said IPAF CEO Tim Whiteman. "The main causes of loading and unloading incidents have been traced to insecure loads and machines falling off between ramps. These risks can be prevented through proper training and management of the work."

• See article on page 14.



New guidance for tree care industry

IPAF has published safety tips for the use of MEWPs in tree cutting to ensure that operators in the sector work safely at height.

Statistics from IPAF's accident reporting project (www.ipaf.org/accident) show that approximately one in five of all MEWP-related fatalities involve tree care workers.

Yet MEWPs are one of the safest means for temporary work at height, provided that a risk assessment is done, managers and operators are properly qualified, trained and familiarised, equipment is inspected and maintained, and safe use procedures are followed, including having a rescue plan.



IPAF's latest technical guidance analyses some fatal incident reports, draws out the lessons learned, and provides safety tips for trained operators before, during and after tree care work.

"Whether you are a professional tree worker or a hobby gardener, if you are using a MEWP to work at height, make sure that you complete formal recognised operator training for the correct use of this specialist equipment," said IPAF CEO Tim Whiteman.

IPAF's guidance for the tree care industry is available in several languages and can be downloaded from the Publications/Technical Guidance section of www.ipaf.org.

MEWP Industry Fatal Injury Rate - FIR (shown in yellow) 200 0.05 175 0.04 150 125 0.03 100 0.02 75 50 0.01 25 0.00 2014 (64) 2015 (68) 2013 (68)



Above: the MEWP fatal injury rate in relation to millions of MEWP rental days worldwide. Right: Chris Wraith. IPAF technical & safety executive

MEWP fatal injury rate remains constant – yet fleet size and utilisation increase

The fatal injury rate for MEWPs has remained constant, even though the total MEWP rental fleet and the number of rental days worldwide have increased. IPAF's release of the 2015 MEWP-related accident data and its preliminary fatal injury rate calculations thus confirm that MEWPs are one of the safest ways to perform temporary work at height.

For 2015, the number of days a rented machine was operated per year was 192.2 million and the number of reported MEWP fatalities worldwide was 68, to give a fatal injury rate of 0.035. Of the 68 reported MEWP fatalities for 2015, the main causes were overturn, falls from height, electrocution and entrapment.

In 2014, the number of days a

rented machine was operated per year was 182.4 million and the number of reported MEWP fatalities worldwide was 64, to give a fatal injury rate of 0.035.

In 2013, the number of days a rented machine was operated per year was 168.4 million and the number of reported MEWP fatalities worldwide was 68, to give a fatal injury rate of 0.040.

The accident data from 2013 to 2015 show that the main causes of MEWP-related fatalities were: fall from height (31 per cent), overturn (27 per cent), electrocution (15 per cent) and entrapment (15 per cent).

The MEWP fatal injury rate as calculated by IPAF takes into account the following factors:

• Estimated rental fleet size, based on the IPAF Powered Access

Rental Market Reports (www.ipaf. org/reports)

- Estimated average utilisation rates per country and worldwide (utilisation rate is defined as the share of the fleet out on rent at any time over a year)
- Average days worked per year (5 days a week for 50 weeks a year)
- The number of fatalities involving MEWPs worldwide in a given year, based on the IPAF accident reporting project (www. ipaf.org/incident)
- Only those accidents verified by IPAF are included in the report, which may lead to some omissions and corrections in future years.

Presenting the research at the IPAF Summit in Madrid, Chris Wraith, IPAF technical & safety executive, noted that international accident data is presented in different formats, which sometimes makes it difficult to draw useful comparisons.

He said: "MEWPs are part of the solution in preventing falls from height, but we should recognise that MEWPs introduce hazards that need managing. Engineering control is but one option, and the industry is starting to work together on a global scale to ensure continual improvement."

All manufacturers, rental companies, contractors and users are encouraged to report any known accidents (not just fatal and serious accidents) involving MEWPs and MCWPs (mast climbing work platforms) worldwide at www.ipaf.org/accident.

Build UK backs IPAF PAL Card



Build UK has confirmed that an IPAF qualification and valid PAL Card (Powered Access Licence) continues to be accepted and recognised on the sites of Build UK contractors as proof of training in the safe use of mobile elevating work platforms (MEWPs) and mast climbing work platforms (MCWPs).

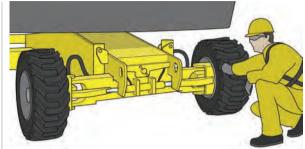
The Construction Leadership Council (CLC) agreed that from January 2015, the industry, including trade associations, contractors, clients and government, should specify and promote card schemes carrying the Construction Skills Certification Scheme (CSCS) logo, with no equivalents accepted.

The Build UK Training Standard, published in May 2016, recognises that the CLC decision and card schemes carrying the CSCS logo both relate to construction occupations only. Due to the diverse nature of

construction projects, there are situations when persons may need access to sites to perform non-construction occupations or activities, eg drivers who are delivering or collecting materials to site. It is not expected that these individuals will hold a CSCS card.

More specifically, the Build UK
Training Standard states: "In addition
to a card carrying the CSCS logo,
individuals may need to have
undertaken supplementary training to
operate specific machinery, plant, or
tools or to carry out certain activities.
For example, a steelwork erector would
hold a steel erector card issued by CSCS
and if required to use a MEWP, would
also hold an IPAF or other relevant card
to cover this training."

PAL Cards are issued as machinereadable Smart PAL Cards and can be verified online at www.ipaf.org/ checkpal.



IPAF launches delivery course

Contractors and end-users who need staff to perform predelivery/in-service inspections of MEWPs in a structured and systematic way can turn to IPAF's new pre-delivery inspection (PDI) course. The course enables attendees to conduct a PDI to verify that a MEWP is functioning correctly, is safe and ready for rental or sale. The course is targeted at new service technicians/mechanics or yard-based personnel.

The one-day course gives a rounded approach to PDIs, going from relevant legislation and legal requirements for a PDI, to common faults, when to pass or fail a machine under inspection, and how to conduct a PDI for specific categories of MEWPs. It features group exercises and hands-on practice, and includes a theory and a practical test.

IPAF training centres offering the PDI course can be found using the training centre locator at www.ipaf.org.

Membership milestone for IPAF

At the end of 2015, IPAF had a total of 1,163 members from 57 countries.

A record number of 145,094 people were trained by IPAF-approved training centres in 2015. This is an increase of 5.6 per cent over the 137,436 people trained in 2014. Training available from IPAF-approved centres includes operator courses for which a PAL Card



(Powered Access Licence) is issued, and harness and management courses for which a certificate is issued.

IPAF issued a record 137,517 PAL Cards worldwide through its approved training centres in 2015, an increase of about 5.6 per cent over the 130,237 PAL Cards issued in 2014.

There are now more than 660 IPAF-approved training providers around the world and more than half a million valid PAL Cards in circulation.

Read about more milestones in IPAF's annual report, available in seven languages, at the Publications section of www.ipaf.org.

IPAF offers Brexit reassurance

The UK's vote to leave the European Union will present some challenges to IPAF, but is expected to have limited effect on the way that the international federation works in Europe's various technical committees.

IPAF technical & safety executive Chris Wraith said: "Like the rest of the world, we are still assessing the impact of the Brexit vote, but IPAF remains committed to representing the best interests of its members across Europe and the world. I would like to take this opportunity to reassure manufacturer members that IPAF intends to continue working closely with all European organisations and will explore ways to maintain and improve the representation and influence of MEWP manufacturers regarding relevant EU legislation and standards."

Warning over banners on scissors

IPAF is urging organisers and exhibitors at events and local festivals not to attach banners to scissor lifts, as this could create a "sail board" effect, which could destabilise the lift and cause it to turn over.

Scissor lifts are a safe way to perform temporary work at height when used properly by trained personnel. However, they are not designed to hold banners or advertisement boards. Some scissor lifts are designed for indoor use only at zero wind speed. Those designed for outdoor use may be at risk of being blown over in an elevated position when the maximum safe wind speed is exceeded.

IPAF can help managers and operators learn how to use this equipment correctly. More details about IPAF's safety initiatives, technical guidance and training are at www.ipaf.org/safety.

Worldwide MEWP rental fleet grows by 4 per cent

There are now 1,170,000 mobile elevating work platforms (MEWPs) in the worldwide rental fleet. This is up 4 per cent from the previous year, reveals new research commissioned by IPAE.

The UK MEWP fleet size grew to 54,483 and UK total MEWP rental revenue reached €486m (£669m) in 2015 according to the UK analysis in the European Powered Access Rental Market Report 2016.

The US MEWP rental fleet expanded by 3 per cent in 2015 to exceed 530,000 units. Due to the current slowdown in the oil sector, the proportion of construction end-markets in MEWP rental increased slightly to reach 73 per cent in 2015.

The Chinese MEWP rental fleet grew by about 35 per

cent in 2015 to reach approximately 12,200 units.

The European MEWP rental market grew by 3 per cent in 2015 and is estimated at approximately €2.7bn.

Fleet expansion continued at a moderate pace to reach 313,000 units. The 10 European countries surveyed were: Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, Sweden and the UK.

The IPAF rental market reports are presented in an easy-to-read format, highlighting key facts and figures for senior management, such as fleet size, utilisation rate and retention period. They include an estimate of the size of the MEWP rental fleet worldwide, with a breakdown by region and machine type.

New aspects covered in the 2016 reports include: details on construction and non-construction sub-sectors in MEWP rental revenue, utilisation rates by equipment type (booms vs scissors), and preliminary estimates of the number of operators trained annually.

The US report includes Canada. The European report includes seven individual country/regional sections: France, Germany, Italy, the Netherlands, Nordic/ Scandinavian countries (covering Denmark, Finland, Norway and Sweden), Spain and UK.

The IPAF US and European Powered Access Rental Market Reports 2016 can be purchased at www.ipaf.org/ reports.

Lift Safety Zone at CONEXPO

IPAF will be bringing the Lift Safety Zone live to visitors at CONEXPO-CON/AGG in Las Vegas, together with the US-based National Commission for the Certification of Crane Operators and with the support of the show organisers, the Association of Equipment Manufacturers.

The Lift Safety Zone is a space of 7,500 sq ft (670 sq m) in the Gold Lot and promises an eye-catching and dynamic display promoting the safe and effective use of lifting and access equipment, including cranes and aerial lifts.

IPAF CEO Tim Whiteman said: "IPAF greatly values the opportunity to work with the organisers of CONEXPO-CON/AGG to increase safety in the work at height sector. US OSHA statistics confirm that falls from height continue to be the single largest killer in the workplace – and specifically in construction. Our aim is to use the Lift Safety Zone to communicate a critical safety message to visitors – temporary work at height does not need to be dangerous. We can save lives. IPAF's members greatly appreciate the generosity with which the AEM has in previous years donated space to allow us to communicate these important messages."

Visit the Lift Safety Zone to pick up valuable advice on the safe use of lifting and access equipment. All IPAF meetings around CONEXPO will be listed at www.ipaf.org/events.



IPAF Summit and IAPAs head to Wembley

The next IPAF Summit and International Awards for Powered Access (IAPAs) will be held on 4 April 2017 at the Hilton Hotel, Wembley, London, UK.

The conference hotel is situated right next to the iconic Wembley Stadium. All readers of *Powered Access* are welcome to attend the IPAF Summit for free but should register in advance by visiting www.iapasummit.info.

Get a grip on harnesses

Our annual discussion aims to tackle the thorniest issues of the MEWPs sector. This time, harnesses and lanyards are under the specific sector.



very year, the Big Debate assembles a panel of experts to thrash out the pros and cons of a subject that is of importance to the powered access industry. It might be a subject that has taken on a particular importance in the year due to events, such as accidents or recalls, or it may be a subject about which people feel current guidance needs further discussion.

In an industry such as powered access where the technology is always developing – and where the industries it serves are constantly developing their techniques – the guidance sometimes needs revisiting to ensure it is still accurate and appropriate. This year, harnesses and lanyards are under the spotlight – particularly in the light of recent research on lanyard length. One of the authors of that research, Marco Einhaus of the German state insurance industry, was invited to the debate to share his findings.

To begin the debate, the panellists

chaired by **Andrew Gaved** (foreground) and the panellists were (left to right): **Rupert Douglas-**Jones. IPAF technical and safety officer; Mark Starling, Kier Construction London safety, health & environmental manager; Gordon Leicester, Facelift Access Hire owner; Pete Ward, SpanSet managing director; Marco Einhaus, Deutsche Gesetzliche Unfallversicherung; Ray Cooke, Health and Safety Executive Construction Division

principal inspector

The Big Debate was

described the reasons why they had a particular interest in the subject of correct harness provision. Some reasons extended beyond the professional – Mark Starling combines being SHQ for a major contractor with a passion for mountaineering, and is being sponsored by Kier to climb Everest in March 2017.

Meanwhile, Pete Ward, managing director of height safety equipment manufacturer SpanSet, has collaborated with IPAF since drafting the first harness course in 2003.

Gordon Leicester's passion for safety, fashioned by a long career in the powered access industry, has led him to design and launch his own distinctive harness, but he also was instrumental to IPAF's last major harness campaign, the widely adopted Clunk Click initiative.

Marco Einhaus brings the perspective of a different country. Germany has a statutory regulation requiring accident insurance and his team has the dual responsibility of developing the relevant safety standards and ensuring that those standards are met on site – not only in Germany, but where German companies are working around the world

Mr Cooke's role as principal inspector in the HSE has some similarities, from his position at the head of a small team of inspectors in the Construction Sector Safety Team. He helps set the guidance for the operational inspector teams around the country.

Intentions and actions

The discussion was kicked off with a simple, if controversial, question: are we using harnesses safely today?

Ray Cooke saw a disparity between intentions and actions out in the field. "In terms of what the law requires and what the guidance sets out, we ought to be OK, but in terms of what we see on site, it is a very different picture. I was watching some window-cleaning contractors in a boom MEWP out of the office window the other day. They had full body harnesses and lanyards but the lanyards were too long! That is a common thing we come across, unfortunately."

Mr Starling added: "I certainly see harnesses not done up, or harnesses frayed on the shoulder. And people in cold weather wearing a harness but with a jacket over the top – that is a common sight."

It was agreed among the panel that these problems, which need to be addressed in the operative population, are the tip of an iceberg.

Mr Cooke said the smaller sites were often where the biggest problems arise: "This is where we see things going wrong on a regular basis – either they aren't as well-managed as they are focused on getting the job done, or they are sites where they don't know what the requirements are for harnesses and lanyards, let alone whether they are properly adjusted."

This, of course, begs the question as to whether the rules are clear enough.

otlight. Andrew Gaved was in the chair

Mr Cooke, who deals daily with the law, said he believed they were: "Others may disagree, but I don't think that the legislation is particularly complicated, and alongside it there is quite a lot of guidance to help people comply. You should wear a fixed-length lanyard that is appropriate for the basket you are in. I am not sure it could get a lot simpler, to be honest. It is just that people don't follow it."

As it happens, the ensuing debate resulted in some potential adjustments to that very guidance, perhaps showing how sometimes even the most seemingly black-and-white guidance can be open to interpretation.

Same rules, same behaviour

But back to site behaviour. Mr Einhaus agreed that neglect, wilful or benign, of the rules, was a problem not limited to the UK.

"In Germany, we have the same issue. The users just don't seem to understand the rules. The legislation is not the problem – it is the understanding."

Mr Einhaus had a key





recommendation for change to current guidance on harnesses, based on his organisation's research – shorten the lanyard length. He said: "Our research in Germany has shown that the usual 2 m standard lanyard is too long for the MEWPs application. The catapult effect will apply, throwing you out the basket if your lanyard is longer than 1.8 m. A man is of 1.8 m average height in Europe, so it is not a problem to find the right length."

Mr Douglas-Jones added: "UK Safe Use Standard BS8460 does not stipulate a set length of lanyard but recommends that it is adjusted to provide restraint and prevent the wearer from being catapulted from the platform. This message is supported by IPAF's H1 guidance note."

The problem, said Pete Ward, was the standardisation of lanyard sets. "The most common lanyard in a standard kit, preassembled we sell is 1.25 m, or 1.75 m for mobile platforms. The difficulty is getting someone to adjust it down." That, noted Mr Cooke, also depended on having a customer with enough understanding to know what to ask for in the first place.

Mr Ward agreed, noting that too

many people purchase standard 2 m lanyards rather than MEWP-specific lanyards. Unless the seller has the knowledge to challenge them, they buy it "because it can be purchased – no questions asked". He added: "This shows we need to educate those selling, as well as those using."

The spotlight inevitably fell back on IPAF at this point, as panellists asked whether its courses were adequately addressing this sort of issue.

Mr Douglas-Jones confirmed that on the operator course, the donning of the harness and the rudimentary checks – how to make it fit – were certainly covered. But, he said, he believed that many problems around lanyard length could be headed off with a change of emphasis towards 'one person, one harness'.

He said: "A lanyard that is the right length for me will not be the right length for someone shorter, but if each operator had their own harness and lanyard this may solve the problem. There are some issues, as we know with different baskets and anchorage points, but the 2015 amendment to the MEWP design standard EN280 addressed this issue by requiring that the anchor point should "be positioned not more than 750 mm above the floor of the work platform".

"I would love to go to the harness companies and encourage them to sell harnesses to a person depending on their height – as I know Gordon's company already does, for instance."

The concerns over lanyard length are exemplified by two main issues – on the one hand there are the people who purchase or use too long a length lanyard out of simple ignorance over what will keep them safe, while on the other there are the operatives who are increasingly using longer lanyards with inertia reel blocks, to enable them to reach out and over the handrail.

Mr Starling said he had noted more people using inertia blocks in the basket to allow them to stand on the toeboard and lean out of the basket. He said: "We have also just done a trial on the Sky Screen, which is a netting system that goes around the basket that stops the guys from standing on the toeboard. That has worked quite well."

Of concern to many is the raised awareness of operatives exiting the basket at height. Mr Douglas-Jones said: "IPAF is aware of this practice and has recently issued a technical guidance note – E2 – on this." He went on to say some manufacturers have designed a specialist rail for use in MEWPs designed to the North American ANSI A92 standards. Operators can attach when working outside the platform but manufacturers still stipulate a maximum length of lanyard.

Mr Ward added: "The problem, is you can't calculate the deflection of the anchorage, so you can't work out how far the operative is going to travel during his fall. He might not get hurt by his equipment, but the further he can travel while falling, the more likely he is to collide with objects on the way down."

He added: "It would be the same problem whether it was an inertia reel or a standard length lanyard, because once you allow the person enough distance to stand on the handrail, you are giving them enough length to fall."

That, of course, is a major problem for manufacturers since if people are allowed to travel further, then the MEWP firm would have to look at rating the basket to cope with the added length and it becomes more complicated. For Mr Ward, it was a simple equation: "If we can remove the risk of the fall out of the basket with a shorter lanyard, it makes everything a lot simpler – then it is only in the event of a catastrophic failure that you would have the risk of a suspension. A longer lanyard means there would be



many more instances where the operator could be suspended. If you can keep someone to a known area, you can assess the risk better, but once they are allowed to go outside that – on the handrail, for instance – it is much harder to assess. So restricting that 'freedom' to bend the rules could protect them."

But Mr Leicester pointed out that having too short a lanyard could equally be a problem. He said: "We work on some Bronto platforms with extendable cages. If you have two cladding contractors and the operator all moving around in the cage, then too short a lanyard would also create chaos with clipping on and clipping off. And cages will get bigger in the coming years, we can be sure of that."

Mr Starling raised the interesting question of whether a lanyard could be provided already affixed to the basket. But fellow panellists disagreed with the idea, considering it too onerous on the hire company to maintain it, and too expensive for the manufacturer to provide it in the first place.

Mr Douglas-Jones said: "It is an interesting idea, if you draw the analogy with the car industry – they didn't have seat belts initially – and it may eventually be given serious thought."

Debate necessary?

Mr Leicester threw a depth charge into the discussion, by questioning whether a debate about lanyard length was really necessary at all, asking: "Are there many accidents that would be prevented?"

Mr Douglas-Jones said the data that IPAF had compiled did back up its stance on lanyard length: "Accident statistics demonstrates that all the accidents recorded involving falls from height show that if they had attached the lanyard, whatever length, a significant number of the fatalities would have been prevented."

Mr Cooke wondered whether the key to changing behaviour was to focus on awareness. He said: "I come back to the fact that we still see people on smaller sites with no harness, let alone a badly adjusted one. They say 'it's in the back of the van' and you look in the van and it's sitting in a pool of oil or something they just don't look after it. I suspect the problem is that their managers are not ensuring that the trained operator is using it. That, for me, is the difference between having been trained and being competent. It is the competent operator that says, 'I am not winding the harness round the handrail, because that is not what it is designed for:"

The discussion ranged around how best to get that message across about proper harness use – whether it should focus on the management or directly on the operative. Mr Cooke noted that there are awareness courses for managers in areas such as asbestos, and Mr Douglas-Jones noted that IPAF's own MEWPs for Managers course had seen thousands of successful completions. However, both agreed that the smaller companies were often conspicuous by their absence from such courses.

Mr Leicester reiterated that it was applications outside of construction that were the key problem. He said: "In the disciplined environment of a construction site, it is not a problem in getting people to wear harnesses, it is the free environments, such as window cleaning, that we have to tackle."

Mr Einhaus suggested that in Germany, the authorities had legislation in place to solve this issue. He said: "We have the same problem with facilities managers. Where there are under 30 or 40 people, it is hard to encourage them to train."

Mr Ward pointed out that it is the end customer who often needs their awareness raised. He said: "You will find that in most cases now, the company that hires the MEWP is trained by IPAF, but the owner of the site, such as the factory manager, won't be – they will leave the responsibility to the contractor. I think management courses need to be pushed down towards the end-user, to say 'there





is this machine on your site and maybe you need to police that operator."

Targeting end-users

That begs the question – should IPAF consider developing a course called something like MEWPs for End-Users?

The problem of getting people to wear harnesses was why he developed his own harness design, Mr Leicester said. "For ever, it has been company policy to wear a harness. But the problem was always in policing it – human nature is, if it is a quick job, they won't put the harness on. That's what made me design a harness that is part of the uniform, so that they are already wearing it at the beginning of the day. So many of these accidents happen on sporadic work, don't they? We are trying to eliminate that."

The solution, as proposed by Mr Douglas-Jones, could be to go where the Clunk Click campaign went - on site. He said: "Would it help if IPAF produced stickers simply saying Harnesses Save Lives, that could be placed on every boom? Ignorance is no excuse and could be fatal."

Mr Leicester said that, in his opinion, more strict policing by IPAF was the solution. "The only way to really fix it would be for IPAF to say 'if you are found without a harness, you lose your ticket'. Even the threat of it would be useful. The Clunk Click campaign made people spontaneously put on harnesses. We need to do something like that again."

In Germany, Mr Einhaus pointed out, many of the worst accidents had occurred through operatives not clipping on their lanyards. He said: "We had a

recent fatal accident in Hamburg which puts this whole debate in perspective. When the basket failed, one man had his lanyard hooked on to the basket and he survived, but the other wasn't hooked on and he was thrown out. We have had five or six fatal accidents in the past few years, where the operatives had all the equipment, but they weren't hooked to the anchor points."

Mr Leicester wondered whether people had become too blasé about accidents with MEWPs, simply because of their rarity and their relative lack of publicity that they get. He said: "Nobody really realises that cage levelling failure can be a risk. In the Sydney Olympics, somebody accidentally flipped the basket on a platform over in the opening ceremony, but because they had their harnesses on and clipped on, they were unhurt, so it didn't get much publicity. Everyone who is involved with motorbikes knows they can be dangerous and most people know someone who has had an accident. But can the same be said about MEWPs?"

The panellists were presented with a concrete way to summarise all their discussion – incorporating the new thinking into IPAF's technical guidance for operators. They decided they could not agree with Mr Einhaus's call for a simple prescriptive statement – "use a 1.8 m lanyard" – because of the concern about bigger baskets, where a worker with a 1.8 m lanyard may not be able to reach the edge of the platform.

There was also heated discussion about whether to say 'recommended', 'strongly recommended' or 'should' but



Essential guidance

IPAF has issued a technical note on fall protection from MEWPs, available to download from the resources section at www.ipaf.org





Technical Guidance

Fall Protection in Mobile Elevating Work Platforms

Boom Type Platforms
When working from a boom type
Mobile Elevating Work Platform
(MEWP), it is strongly recommended
that a full body harness with an
adjustable lanyard be used to
provide work restraint. The lanyard
should be adjusted to be as short as
possible and may contain an energy
absorbing device.



Vertical Lifts

It is not normally necessary for personnel working from a vertical lift to wear fall protection equipment, other than in exceptional circumstances.

This includes Static Verticals (1a), Mobile Verticals (3a), Push Around Verticals (PAV) and Mast Climbing Work Platforms

The need for a fall protection system will be the outcome of a job specific risk assessment undertaken prior to work commencing and taking into consideration the manufacturer's operators' manual.

the fundamental debate was around the word 'adjustable', which panellists thought might encourage operatives to specify too long a lanyard. They finally agreed the key message to be conveyed is: "Where working with a boom-type MEWP, it is strongly recommended that a full body harness, with a lanyard of a length suitable for the work in that basket, according to that individual's height and application, be used to provide work restraint.

Mr Ward summed up the discussion: "It is only if a worker is outside the basket that you have to worry about things such as clearance height, impact, rescue issues and the like. So if you can keep the guy in the basket, you are avoiding many of the issues."

Lessons from tragedy

The death of Paul Williamson was an avoidable accident, writes IPAF technical and safety officer Rupert Douglas-Jones

ather-of-three Paul Williamson died on 29 January 2014, when the mobile elevated working platform (MEWP) he was loading onto a transport vehicle fell from the ramps, crushing him instantly.

The tracked boom-type MEWP had only been in operation for eight days when it toppled off the loading ramps, which were positioned at a gradient above the manufacturer's specification and were not secured to the lorry. The sadness of this case is compounded by the fact that the courts identified Paul's death was entirely avoidable had the correct risk assessments and safety systems been put in place, and had Paul been provided with adequate training.

The tragedy triggered investigations that this year culminated in Thorn Warehousing, the company that Paul worked for, being fined £166,000 by the Health and Safety Executive (HSE) and ordered to pay £10,400 costs. At the same time, Thorn Warehousing director Kenneth Thelwall was handed a 12-month prison sentence, ordered to pay £4,000 costs, and was disqualified from being a company director for seven years. His company is now in administration.

Missed opportunities

There were several missed opportunities to avoid the accident that killed Paul, despite the presence of unambiguous laws to protect workers. There is a clear legal requirement under the Health and Safety at Work Etc Act 1974 and Provision and Use of Work Equipment Regulations 1998 (PUWER) to train employees, covering all of the equipment - which in this case would include the ramps, the lorry and the MEWP. At the same time, PUWER states that employers should ensure equipment is suitable for the task, and maintained, in efficient working order and in good repair.

The Management of Health and Safety at Work Regulations 1999 also places a duty on employers to make a



suitable assessment of the risks to employees and others associated with the work. There are many free examples and guidance on risk assessments available from various sources, including the HSE and IPAF. Such guidance provides tools to help businesses understand what they need to do to assess and control risks in the workplace and comply with health and safety law. You can read more at www.hse.gov.uk/risk/principles.

A suitable risk assessment should have highlighted the lack of training, and deficiencies in the equipment provided to Paul that day. Loading and unloading should take place on firm, level and even ground. Risks such as the impact of camber and the ramp incline should be taken into consideration.

Evidence submitted identified that the ramps used were not designed for that level of inclination, and they were not secured to the transport vehicle as per the manufacturer's recommendation. In addition, the lorry was not equipped with a winch to assist in the loading procedure.

The courts concluded that Kenneth Thelwall failed to take his responsibilities as an employer seriously, with devastating consequences.

This case should act as a stark warning to all employers of their personal responsibility to protect their workers' health and safety, and the tragic outcome when they neglect to do so. This was an entirely avoidable accident.

IPAF wishes to thank the family of Paul Williamson in helping us to raise awareness of these issues and help prevent further accidents.

TRAINING AND FAMILIARISATION

Employers are responsible for ensuring that all equipment operators are adequately trained and familiarised to comply with health and safety legislation.

There are many options available when selecting the type of training to provide employees, the prime examples being either in-house courses, or industry-recognised courses such as those provided by IPAF: in this case the IPAF Load and Unload course and the IPAF Operator course - category Static Boom (1b)).

Courses from IPAF have been developed with input from IPAF manufacturer, hirer, training, and user members — all of which specialise in the MEWP and mast climbing work platforms (MCWP) industries, as well as input from the IPAF Accident Database.

The end result is that the courses provided are the industry standard. And in the event of an accident, investigators will look to compare any training provided against the recognised industry standard.



Operate legally and safely

The essential, one-day course for those who plan, supervise and manage the use of mobile elevating work platforms in the workplace.



www.ipaf.org

















MEWPS FOR MANAGERSTRAINING COURSE



Is your site safe for loading an

More than a third of MEWP-related incidents reported by rental companies involve delivery drivers. What are the most common p

illions of deliveries or collections of mobile elevating work platforms (MEWPs) take place each year on sites across the UK. Delivery drivers play a vital role. In some cases, they are the only face-to-face contact point between the rental company and the end-user on site. Any incident involving drivers during delivery and collection of a MEWP has the potential to be serious – and could also affect contractor relations and site operations.

Recent data collected from IPAF rental company members has increased focus on the risks to delivery drivers. Since January 2012, all IPAF members are requested to report all MEWP-related incidents involving their own staff to the IPAF accident reporting database (www.ipaf.org/accident). Analysis of the recent data confirms some trends identified from previous years and highlights specific situations that involve a significant proportion of drivers.

On average and extrapolating across the board, 35.5 per cent of the incidents reported by rental company members of IPAF involved delivery drivers.

A majority of the incidents (44.2 per cent) took place on site, with another 25.7 per cent occurring in the depot/yard, 13.6 per cent occurring in the workshop and 11.2 per cent occurring on the public roadway. The most common types of injury incurred were cuts and bruising of the upper limb, lower limb and head.

Causes of incidents

Most of the incidents involving delivery drivers occurred during loading and unloading (48.7 per cent). The main causes of driver-related incidents were identified as insecure load and the machine falling off between ramps. Closer analysis of the incidents caused by insecure load revealed that these were mainly due to the canopy becoming detached from the MEWP

| | LIVERY PROCESS | ESS | |
|--|--|---------------------------------|--|
| CONTRACTOR | RENTAL COMPANY | TRANSPORTER | DRIVER |
| 1.1 Identify the need for a MEWP | | | |
| 1.2 Discuss requirements with rental company | 1.2 Discuss requirements with contractor | | |
| 1.3 Confirm MEWP order | 1.3 Confirm MEWP order | | |
| | 1.4 Identify MEWP and prepare to hire | | |
| | 1.5 Order transport | 1.5 Confirm transport order | |
| | | 1.6 Identify vehicle and driver | |
| | | 1.7 Send vehicle to load MEWP | 1.7 Vehicle sent to load MEWP |
| | 1.8 Provide safe load area | | 1.8 Risk assess loading area |
| | 1.9 Oversee loading activities | | 1.9 Safely load machine(s) |
| | 1.10 Documentation | | 1.10 Documentation |
| | | | 1.11 Delivery of MEWP to site |
| 1.12 Prepare unloading area | | | 1.12 Risk assess unloading area |
| 1.13 Oversee off-loading | | | 1.13 Off-load MEWP |
| 1.14 Handover of MEWP | | | 1.14 Handover of MEWP |
| | 1.15 Return of documentation to rental company | | 1.15 Return of documentation to rental company |

during transport. Almost all the machines that fell off between ramps were small electric machines (mobile verticals, 3a).

Most of the incidents involving operators occurred when the MEWP was being operated from the platform controls (51.2 per cent). The main cause

of these operator-related incidents was identified as lack of observation and failure to check the route, ie colliding with stationary objects while driving on unfamiliar sites.

What you can do

The data clearly shows that loading and

d unloading?

tfalls to avoid – and how can delivery drivers keep safe?



unloading MEWPs can be hazardous.

Yet they are the safest way of doing could be temporary work at height. Have you planned for safe operations?

Do not st could be which di always cl

- Ensure that a senior manager is responsible for planning MEWP deliveries, collection and transportation;
- Perform a proper risk assessment for all MEWP operations and document this process;
- Ensure that all employees are adequately trained to fulfil their responsibilities.

Know your responsibilities – play your part in preventing accidents!

How to avoid the top four hazards

Potential danger 1: Foot run over

When driving a MEWP with the upper control box detached (wander leading), keep a safe distance and use smooth driver or steer movements. Follow a clear and communicated site traffic method statement.

Potential danger 2: Trapped between machines

Do not stand in between machines – it could be fatal. Never assume you know which direction the MEWP will travel – always check by confirming the controls are the correct way around compared to the chassis, then drive slowly to start. Concentrate on what you are doing and stop if you get distracted.

Potential danger 3: Falling while driving down ramps

Drive the MEWP slowly and carefully. Use the winch to prevent runaway. Avoid adjusting steering on the ramps. Use a vehicle with a full width ramp. Never drive on or off a ramp at an angle. Always approach the ramp with the MEWP aligned straight. Watch out for slips and trips.

Potential danger 4: Catapult effect

Loading and unloading of booms also presents significant risk of ejection. Make sure you wear your harness with a short lanyard attached to to the anchor point all times.

More resources on safe loading and unloading are at www.ipaf.org/load.

Solid guidance
Visitors to the IPAF
stand at Vertikal
Days (left)were
invited to walk
through the display
and to consider how
to keep the loading
and unloading of
MEWPs safe — with
the help of posters,
technical guidance

and advice from

IPAF's experts

GUIDANCE AND COURSES

There is help and guidance available to prevent these accidents:

- IPAF working groups have produced good practice guides relating to drivers and the management of safe loading and unloading of MEWPs:
- IPAF Load and Unload Best Practice Guide identifies the responsibilities of contractors, rental companies, transporters and drivers when planning and carrying out loading/unloading activities:
- Guidance on Loading and Unloading MEWPs on the Public Roadway.

These documents are available to download at www.ipaf.org/load.

You could consider taking these IPAF training courses:

- Loading/unloading of MEWPs
- MEWPs for Managers
- Operator
- Demonstrator

For more information about IPAF training courses visit the training section at www.ipaf.org

| | 1.15 Return of documentation to rental company | | 1.15 Return of documentation to rental company |
|---|--|------------------------------------|--|
| | | WP ON-HIRE | |
| | | COLLECTION PROCESS | |
| CONTRACTOR | RENTAL COMPANY | TRANSPORTER | DRIVER |
| 2.1 Identify end of MEWP hire | 2.1 Identify end of hire MEWP hire | | |
| 2.2 Confirm off-hire and collection details | 2.2 Confirm off-hire andcollection details | | |
| | 2.3 Order transport | 2.3 Confirm transport order | |
| | | 2.4 Identify vehicle and driver | |
| | | 2.5 Send vehicle to collect MEWP | 2.5 Send vehicle to collect MEWP |
| 2.6 Provide safe loading area | | | 2.6 Risk assess loading area |
| 2.7 Prepare/check machine prior to collection | | | 2.7 Prepare/check machine prior to collection |
| 2.8 Collection documentation | | | 2.8 Collection documentation |
| 2.9 Oversee loading activities | | | 2.9 Load and secure machine |
| | | | 2.10 Leave site and return to rental company |
| | 2.11 Provide safe unloading area | | 2.11 Risk assess unloading area |
| | 2.12 Oversee unloading activity | | 2.12 Unload machine |
| | 2.13 Return of MEWP and documentation | | 2.13 Return of MEWP and documentation |

Roles and responsibilities

New guidance provides clarification on the requirements to ensure the safe working condition of machines



nspection, maintenance and the thorough examination of mobile elevating work platforms (MEWPs) are all vital to ensure the safe working condition of machines. Within the industry, however, there is concern regarding a lack of clear guidance on each distinct element and how they are interlinked. In response to this, the Strategic Forum for Plant Safety – MEWP Safety Group established a working group, led by Chris Wraith, IPAF's technical and safety executive, to bring clarity to the issue.

The key focus of the group, made up of contractors, rental companies, the

HSE, CPA, inspection bodies and IPAF was to address the following issues:

- Establish clear guidance on the difference between inspections, maintenance and thorough examinations, and how they individually and collectively contribute to ensuring equipment is kept in a safe operating condition;
- Highlight and increase awareness of the responsibility of the individual user to ensure the MEWP is kept in a safe operating condition;
- Address inconsistencies of the recording of defect and failure trends in order to inform manufacturers and

Thorough process: MEWP condition and status should be planned, managed, monitored and reviewed in the same way as any other business activity potentially influence future design;
• Establish the minimum accepted knowledge and expertise required by dutyholders and the competent person in order for them to undertake

thorough examination. Significant differences

The guidance is scheduled for publication in early 2017 and identifies that inspection, maintenance and thorough examination are each significantly different, but equally important and interlinked.

Within the document there is guidance on the differing types of

inspection, maintenance and thorough examination; the identification of triggers for when each task should be undertaken; the actions required; and where the responsibility lies.

The role of differing dutyholders, each with specific responsibilities, is identified in the guidance, including that of the individual user and their legal responsibilities.

It highlights clear responsibilities of the user, even if they do not own the MEWP – in particular, that the user has a legal responsibility for ensuring inspection, maintenance and thorough examinations are carried out for any MEWP under their control.

The guidance explains how MEWP condition and status should be planned, organised, managed, monitored and reviewed in the same way as any other business activity. It emphasises the need for proper communication and co-operation,

stating that "an effective management and communication structure is required by the MEWP owner and user, to ensure that everyone involved in inspection, maintenance and thorough examination is aware of their responsibilities".

At the same time, it emphasises that thorough examination is important but should not be substitute for an inspection and maintenance programme. It is a check to ensure the inspection and maintenance programmes are suitable and effective.

Updating knowledge

As well as identifying the differing competencies that are required to ensure each task is accomplished correctly and effectively, the document recognises that the conscious updating of knowledge and the improvement of a person's skill throughout their working life is essential if they are to maintain

competence and an understanding of technical advances.

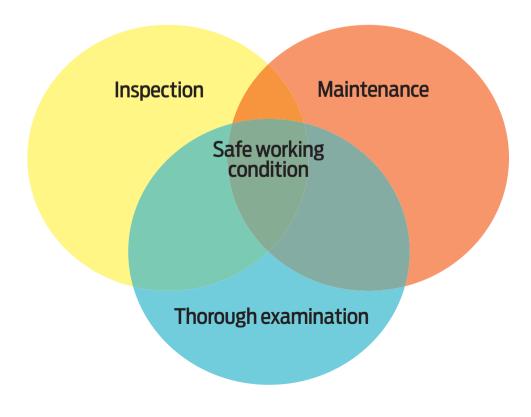
The requirements for selecting and managing providers of thorough examination services, whether they are sourced internally or externally, is also covered in the guidance. It identifies that there is a legal requirement for thorough examinations to be carried out by a competent person, who is familiar with the machine to be examined, and sufficiently independent and impartial to allow objective decisions to be made.

It also recognises that the competent person who carries out the thorough examination should not normally be the same person who performs maintenance and repair operations on the equipment, unless appropriate controls are in place. This is to ensure that there is sufficient independence between the thorough examination and the maintenance, as well as accurate machine history records.

The guidance identifies the reference material that should be available and the essential records to be retained following each inspection, act of maintenance and thorough examination. It details how a regular management review of MEWP inspection, maintenance and thorough examination records and procedures is essential to eliminate possible system failures and ensure the safe condition and safe and efficient operation of the MEWP fleet.

The guidance is an essential reference document for all those who have any management or supervisory responsibility for the safe condition of a MEWP.

Managing the Safe Condition of Mobile Elevating Work Platforms – A Practical Approach to Inspection, Maintenance and Thorough Examination of MEWPs will be made freely available to download on the IPAF website at www.ipaf.org/resources.



Be safe with Andy Access

IPAF's safety campaign reinforces the vital messages covered in its training programmes









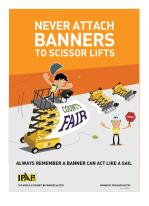
















ontractors, end-users and rental companies are urged to download free poster artwork for use in their daily operations, as part of IPAF's Andy Access campaign promoting the safe use of mobile elevating work platforms (MEWPs).

Simple posters, featuring the

Hazard, form the basis of this campaign. New posters will be released every few months. Each poster illustrates a specific safety message on how to use MEWPs correctly.

The Andy Access posters have originated as a means of communicating the valuable learning outcomes identified from the IPAF

Poster boys: Andy and Hugh are the stars of the IPAF campaign accident reporting project, and as a means of reinforcing the key messages covered in IPAF's training programmes.

Andy Access toolbox talks will be available in 2017. The initial topics covered will be ground conditions and preventing falls from height.

For more information visit www.ipaf.org/andyaccess

characters Andy Access and Hugh



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This time, it's personal

Jeremy Fish, the managing director of hire giant Nationwide Platforms, gives his no-holds-barred view of what it takes to improve safety, based on a talk at the 2016 IAPA Conference in Madrid



y passion outside work is music. And to play an instrument, you need to choose both to sacrifice and to prioritise. When I was young and all my mates were going out enjoying themselves, I was spending three hours a day practising music.

Research shows that all you have to do if you want to be a symphony orchestra level musician is practise for 10,000 hours. Anybody can do it if you are willing to put the hours in – if you did that relentlessly for eight hours a day, seven days a week, that would be nearly three and a half years of your life.

Any musician will tell you that it requires discipline, commitment and passion.

If we all applied the same principles

The right note
Jeremy Fish
says we should not
compromise or
tolerate mediocrity
when it comes to
safety on site

to safety, we would transform our industry. I hear you ask - why should safety be the number one priority, when surely the number one priority of business is to make money?

Well, other than protecting life itself, which is paramount, the simple answer is that safety protects revenues. That may seem like a trite thing to say, but it's not

Safety compromised

I will give you three concrete examples of what I mean. The first example happened about five years ago. Costain, the major construction and civil engineering company, was building a shopping complex near Newbury.

A worker was using a telehandler to lift a pallet of tiles onto a roof four storeys above him. The machine started to topple and the operator failed to get away in time. Mark Williams, father of two daughters, was crushed to death. During the subsequent Health and Safety Executive investigation, it was discovered that "the safety of the vehicle was compromised by limited space and other obstructions in the area where he was required to work".

Costain was fined £615,000. I looked at their annual report and found out that £615,000 is half a month's profit down the drain.

A shadow of shame

Now let me give you a second example. A few years ago, a construction worker was crushed to death by a MEWP on the site of a very well-known company. The coroner's inquest was delayed for over a year and finally concluded a verdict of accidental death. The HSE investigation ran for two years before being closed, with no action against any of the parties involved.

Directors and senior managers of multiple businesses had the shadow of civil and criminal charges hanging over them for several years. One of the businesses directly involved ceased trading. The dead worker's employer saw its revenues plummet to levels that have never since recovered. So their revenues weren't exactly protected either, were they?

On a broader industry note, accidents like these cause uncertainty and hang over our industry like a dark cloud. While operating a 135 boom, questions have been raised about the use of the unit, ever since that fateful day in 2013 when an operator was killed on one of the UK's busiest motorways.

Let me quote IPAF managing director Tim Whiteman, who said at the time that the delay in releasing information was not acceptable. He said: "It leads to confusion and concern in the industry – and can even lead to people considering the use of alternative, less safe methods."

It is now over three years later and we are hardly any further forward. In the meantime, the dark cloud that this incident created has resulted in some customers banning 135s from their sites and huge efforts being spent by our industry to convince them, with varying degrees of success, that these machines are safe.

Let me be clear, accidents like these are bad for customers, they are bad for manufacturers and they are bad for hirers. And they are bad for our industry.

New guidelines

As a result of accidents such as these, the UK Sentencing Council has given new guidelines to judges, instructing courts to focus on an organisation's annual turnover in order to reach a starting point for a fine. For a large organisation, this will mean fines starting at £7.5m up to a maximum of £20m. Fines like these do not exactly protect revenues.

So companies that make safety the number one priority are companies that protect themselves from that. They protect their reputation and they protect their profitability. *That* is why safety should be the number one priority.



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And surely a £7.5m fine and protected revenues is nothing compared to the protection of the people involved. If I take you back to Mark Williams, the telehandler operator, I can't put it better than his own mother, who said at the time: "Little did we know that on that fateful day, a loving father and son would never return home and that it would be our last morning we would feel peaceful, happy and complete. Mark was totally let down by the people he worked for and trusted."

In the UK, a third of the working population are estimated to carry out some form of work at height every year; and one person dies every eight working days falling from height. In the past five years, 2,991 cases were prosecuted; the conviction rate was 93 per cent. In the next five years, total fines could reach close to £1bn.

So as I said earlier, safety should be our number one priority.

You don't have to focus on equipment to be safe, you can focus on behaviour. Safe behaviour doesn't involve cost.

A man was killed in a freak accident

by something as small as a steel tape measure. It fell from a worker's belt on the top floor and hit the victim on the head as he was delivering materials to a construction site in New York. The moral of the story is he was killed because he chose to ignore the site rules about wearing a hard hat.

It doesn't cost anything to stop asking "What happened there?" and start asking "Could that happen here?" It doesn't cost anything to speak up when you witness something dangerous.

It doesn't cost anything to stop for five seconds at the end of a pre-delivery inspection and ask, "Would you put your wife and children in this machine on hire?"

Safety for nothing

We created a safety initiative at Lavendon that cost us nothing. When I first joined the company, I went down to our Bristol depot, got out of my car and I walked across the yard, not realising that I had to wear my personal protective equipment. One of the engineers called across to me and said, "Oi, you, you need your PPE on before you walk across the yard!"

For me, that was fantastic because it didn't matter to him whether I was the managing director or the cleaner – I hadn't adhered to the standard.

That incident represents the whole of Lavendon's attitude. We put health and safety in the top spot of all our management meeting agendas to remind us every time of its priority. We share incidents and near-misses across all of our 70 locations so that all of us can learn from each other's mistakes. We also share this information with IPAF. We make it personal.

So what do you have to do to make safety the number one priority? You have to do the same things you do to make anything a number one priority.

Take your children, for example. You give them time. Not just a fleeting moment, but lots of it. You make sacrifices. If there is a choice to be made, their needs come first. You make them the centre of your universe about which all other things revolve. The core must be protected at all costs. If they need resources and you need to make sacrifices, you sacrifice something else in favour of them.

Well that's exactly what you do to make safety the number one priority. You give safety time. Not just a fleeting moment, but lots of it – 365 days a year. You make sacrifices. If there is a choice, safety needs should come first. You make safety the centre of your universe about which all other things revolve. You choose to care about safety above all other things. If resources are under pressure and you need to make sacrifices, you sacrifice something else other than safety.

I just want to leave you with one final thought. If IPAF members are really serious about safety, then why is it that so few of you have submitted near-miss reports to the IPAF accident reporting database since its inception two years ago? This isn't information sharing. This isn't learning. This isn't being serious about safety.

Let's not compromise. Let's not tolerate mediocrity. Let's not tolerate second best. If we can do these things, then safety surely will be our number one priority, in both good and bad times and it will transform our industry.



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Going up in the world

Ian Vallely meets IPAF UK market manager Dave Roddy, who hopes to bring closer liaison with the sharp end of the industry

ave Roddy has demonstrated over the past three decades that he is an exceptional salesman, having sold everything from school photography services to industrial gases, cars to weighbridges.

But it's his unparalleled experience in the access industry since 2006 that made Dave a perfect fit for the newly created position of UK market manager at IPAF. Although he has a solid engineering background, having started out as a welder at small fabrication workshop in Manchester, Dave found a natural home in sales after discovering an aptitude for deal-making.

He began his career in the access industry a decade ago as an account manager with US designer, manufacturer and marketer of access equipment, JLG. After two years, he moved on to manage national accounts with Haulotte, a French manufacturer and distributor of aerial work platforms and telehandlers.

Finally, three years later, he progressed to northern territory manager at US MEWPs giant Genie. He remained there until the beginning of September 2016, when he started his new role at IPAF.

Membership support

Having worked for three globally successful access companies, Dave has gained a broad understanding of equipment sales into the sector, which will undoubtedly stand him in good stead in his new position.

"My main job as IPAF's UK market manager will be to support our UK membership. The central objective of the role is to liaise with our UK vendors and companies that use access equipment; to engage with those; and promote the safe and effective use of access equipment in the powered access industry."

As Dave points out, he possesses an intimate knowledge of the powered access market: "Although my

Focus on membership Dave has gained a broad understanding of equipment sales into the sector



experience is skewed to a manufacturing perspective, knowing the key players in the marketplace and conveying a broad understanding of the values that 10 years of experience brings will, I hope, help me play an effective part in IPAF's future."

Dave, who is reporting directly to IPAF CEO Tim Whiteman, has already identified several key areas he is keen to develop in his new role: "I want to engage with our UK members and to facilitate a two-way communication stream, so we can improve safety and effectiveness for all."

An important part of this will be working alongside the UK Country

Council members. The UKCC was formed in 2012 to represent the industry and IPAF's UK members by working with the Health & Safety Executive, government and contractors, driving operating standards, improving safety in the industry and ensuring that members are kept up to date with any legislative, technical or other changes that could affect them.

The UKCC's 22 members have a range of industry experience in a wide spectrum of rental companies, manufacturers, training centres and suppliers. "One of my roles is to work with the Council and effect change, drive innovation and help raise the

ABOUT DAVE

Dave's role is to lobby and liaise with relevant government departments, safety authorities and other trade associations of behalf of IPAF members. He also:

- Co-ordinates the UK Country Council activities;
- Represents IPAF in the UK as the focal and listening point for the organisation;
- Supports the long-term membership strategy for the IPAF business, with specific focus on membership retention and expansion activities in the UK;
- Ensures existing services for members are delivered to the highest level of quality. Dave can be contacted through the UK office on 015395 66700 or you can email dave.roddy@ipaf.org

standards within the access industry," says Dave. "Initiatives are discussed around the table and then working subcommittees are sent out to further those interests and objectives."

The type of topics the board of UKCC might explore includes education and training. For example, the PDI (predelivery inspection) course was an initiative from the UKCC, which IPAF then developed for its members.

Dave also wants to hear from the grassroots of the UK industry: "I also want to reach out to as many IPAF members as possible and I would welcome calls from any of them to discuss any issues or concerns they may have."

There will also be opportunities to meet Dave at IPAF's regional events in various parts of the country: "We also make ourselves available to our membership at a range of exhibitions and our members are always welcome at our head office in Crooklands at Moss End [Business Park, Cumbria]."

Freedom to grow

Because Dave has no predecessors as UK market manager, he will – to a certain extent – be in a position to define his own priorities. That is something he is clearly looking forward to: "I'll be working within parameters, but it's a new role so I have the freedom to plough my own furrow and make the position work for everybody," he says. "But my overarching objective in all of this is to serve our members and represent their views at all levels.

One of the early tasks will be to help members to understand the effects of Brexit. "From the manufacturer's point of view, the access business is cyclical, primarily because of buying cycles from rental customers. However, this year in particular, the Brexit vote has had an impact because of the uncertainty it creates," he says.

"This has led to a level of restraint in the marketplace. The feeling that I'm picking up is that people are moving ahead, but cautiously... if projects are cancelled or postponed, that could affect a decision on purchasing large capital equipment, which is bound to impact heavily on our sector."

This leads to another serious issue for the industry that he is keen to help with – the risk of skills shortages. "The powered access industry, in common with many other industries, faces is a shortage of skilled engineers. There hasn't been enough thought, development and investment into developing appropriate apprenticeship schemes," he says.

"For many of our members, it is difficult to find skilled engineers who can fill the gap between somebody that conducts PDIs and a professionally registered engineer. This is a big concern to our members and it's why our response is to support our members in apprenticeship-type initiatives they invoke."

Another vital area of work for Dave is to engage with other trade bodies and contractor groups. "Contractors and associated bodies are of key concern to our members and it is important that IPAF stays at the forefront of any discussions and can influence debate that may have a wholesale effect on our members and their businesses".

Dave will represent IPAF members with contractor group Build UK and other groups such as the Access Industry Forum (AIF), and Combined Industry Theft Solutions (CITS).

But a more positive element, which he believes will have an equally significant impact, is the growing field of fleet control: "IPAF members in the UK are becoming increasingly savvy about how to control their fleets. One of the key areas that we are particularly interested in, in this regard, is user authentication to tighten up access to powered access equipment. With our smart PAL Card, that is one area that IPAF has excelled in recent years. I think this is going to be a game-changer."





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Up in the green: MEWPs in tre

In the tree care and tree cutting industry, mobile elevating work platforms are one of the safest methods for work at height – prov

ree work, like any work at height, is potentially dangerous and should only be carried out by trained personnel who are aware of the risks and precautions to be taken. The responsible contractor or employer has to ensure that the operators have the necessary knowledge and skills. The contractor/employer is also responsible for devising a safe system of work, for completing a documented risk assessment, and for authorising the employees to undertake the work.

A MEWP used for tree work, as for other applications, should meet all the essential health and safety requirements, and be regularly checked, maintained and inspected. A trained operator should always be accompanied by a second person on the ground who knows how to activate the emergency lowering system.

Safe grounding

All ground conditions should be properly assessed and spreader plates should always be used with boom-type MEWPs when fully supported on their outriggers. This applies generally to all types of ground, but is especially important for green landscapes, as an incorrect assessment of the strength of the ground support and the ground pressure exerted is one of the most common causes of accidents involving MEWPs in tree care.

As a machine moves into different configurations, the loads may be concentrated on one wheel or outrigger, sometimes up to 80 per cent of the machine's gross weight. To ensure machine stability, always use spreader plates under outriggers (see IPAF Spread the Load leaflet for further details).

Along road embankments or trenches – as is the case with tree cutting along avenues – keep a safe distance from the embankment so it does not subside under the pressure.

The platform load demands special

Precautionary measures

Always use suitable spreader plates under outriggers. Take precautions to protect the operator from the chainsaw — the use of a manufacturerapproved platform divider is mandatory in some countries



attention. The maximum rated load should be clearly marked on the MEWP, as well as the maximum number of persons – people moving in the basket create dynamic forces, which have a stronger impact on stability than static weight in the form of work tools.

It is essential to ensure that the machine is set up on firm and level ground before elevating. An additional stability test is advisable before raising the platform. Extend the boom horizontally just above the ground until the load limit is triggered. The outriggers should not press into the ground, nor automatically re-adjust.

If this is not possible, use an old fire brigade trick – first, extend the outriggers without spreader plates and check if one or more outriggers sink in. Do not get into the basket and elevate at this point. If the outriggers do not sink into the ground, place the spreader plates in the middle underneath the outriggers and bring the machine into

upright position. If the outriggers sink into the ground, deploy much wider support or select another spot with more stable ground.

Modern MEWP design enables platform working height and outreach that were unthinkable years ago. But when working with these modern machines, it is just as important to plan your work and undertake a risk assessment accordingly to minimise the risk when working at the limits of these machines. Do not use in excess winds – use an anemometer to measure the wind speed and ensure it is less than the rated maximum for the

For operation on or in trees, avoid contact with any branches as this can cause the MEWP boom to be snagged temporarily causing damage to the MEWP platform or structure and when released could cause sudden, unexpected and often violent movement of the boom. These sudden and unexpected forces on the basket

e cutting and tree care

ded that operators are fully trained and the work is properly planned and managed, writes Harald Spaeth



can lead to the platform collapsing, or the operator being catapulted out of the basket. Do not lean out of the basket, or stand on the guardrails, or exit the basket and climb onto trees.

When cutting branches or trunks, avoid all debris falling on the platform. Widely spread outriggers and hydraulic connectors are exposed to danger here. Set up the platform at a safe distance from the tree and create a drop zone where the cut timber can fall to ground safely – allow extra space in the case the timbers 'bounce' after hitting the ground. And remember, do not place debris in the basket as this will create additional platform load.

Trees must often be supported when cutting back vegetation near power cables. The platform and operator must also keep a safe distance, as electricity can spring even without direct contact. IPAF recommends two specific safe distances:

50 ft (15 m) plus fully extended boom from electrical pylon;

30 ft (9 m) plus fully extended boom from cables on wooden poles.

Working inside these limits should only be undertaken following detailed site specific risk assessment and consultation with the power provider to ensure extra safety measures are implemented.

Minimise risks

Chain saws are potentially dangerous tools, even on the ground. They bring even more risks in the working platform at extended height, where the operator's movements are further limited. Appropriate PPE equipment is required for operating the MEWP and should include safety helmet, eye and hearing protection, gloves, protective boots, a safety harness and high visibility clothing. Additional PPE for the operation of the chain saw may include a safety leash for the chain saw to prevent it from falling. Consideration should be given to the chain saw used. Using a light and ergonomic chain saw will aid the operator when using the tool with outstretched arms.

Which MEWP?

Operators and managers need to ensure that the right machine is selected and used for the job being undertaken on the tree. And you need the know the maximum outreach and the height of the machine to ensure it at least meets the requirements of the job.

A small MEWP must be set up very close to the tree – with the danger that branches could fall on the platform or the outriggers, or that the telescope arms could be damaged by falling debris.

Even if a larger MEWP is more expensive, the rental price is worth it: the work goes faster when you can easily manoeuvre the machine, and the machine does not need to be re-positioned as often. The risk of machine damage is smaller – damages to the machine are more costly than

what you pay for a machine from the next higher category.

The market offers a broad selection of MEWPs for tree work. So-called "spiders" or tracked machines are seen as terrain specialists, especially suitable for work on less stable grounds or grass. Scissor lifts in contrast do not play a big role in tree care.

Self-propelled booms offer enormous manoeuvrability in and around trees. An articulated boom can move sideways into a tree, can be positioned near to the target, and can cover a larger working envelope than a straight telescope boom. For a similar working envelope, a telescope boom with a markedly greater working height should be selected, as it has to be set up at a greater safety distance – which means that the risk of damage through falling wood is minimised.

Whether a trailer platform is sufficient, a tracked machine, or a truck-mounted platform is purpose-fit – this depends on the ground and terrain conditions, and on the length of the planned operations.

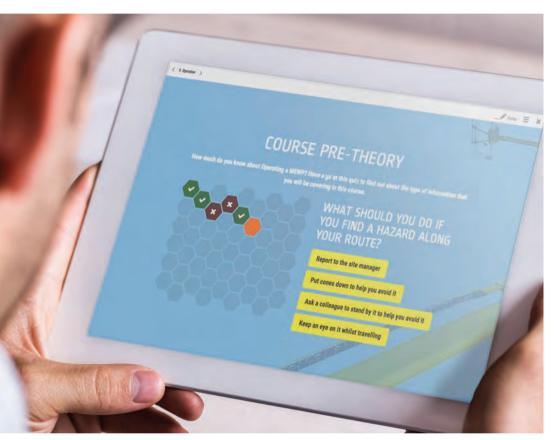
Trailer platforms are a cost-effective option in flat, easily accessible terrain. Truck-mounts are a popular all-rounder that can cover operations from the street to easy terrain. On all-wheel-drive chassis, the platforms can also access difficult-to-reach spots away from the usual roads and streets. Tracked machines have proved to be the absolute specialists for heavy terrain – smaller ones on rubber tracks and larger ones on steel chain undercarriages.

SAFETY RESOURCES

- The UK Health & Safety Executive (HSE) has a comprehensive webpage on tree work health and safety: www.hse.gov.uk/treework
- See the HSE leaflet AFAG403 MEWPs for tree work.
- See also IPAF's Safety tips for the use of MEWPs in the tree care industry, available at the Publications/Technical Guidance section of www.ipaf.org

Higher learning

IPAF has introduced online operator training to complement practical onsite assessment. But how user-friendly is it? We put it to a tough test, in the shape of Ian Vallely, last seen in the classroom when Mrs Thatcher was prime minister



y first experience of IPAF online training began with trepidation and ended with a 31-question test and a sigh of relief. Taken together, the Federation's eLearning package, with its practical test, results in a professional qualification, although – for the purposes of this article, I was only required to take the online theory module.

Let's begin with the ground rules. I discovered early on that it's important to find somewhere private and quiet to concentrate fully on the test. Ideally, switch off the mobile phone, too. Interruptions offer a pretext to stop working, but they're not the only potential distractions; after a while, I found myself creating my own excuses for not getting on with the test –

Access to training The training can be accessed on a range of devices including PCs, Macs, tablets and smartphones making a cup of coffee, examining my Twitter account, taking the dog out for a walk... anything to avoid working on the eLearning.

I believe psychologists call this 'displacement activity' - and selfdiscipline is the only cure. Once I realised this, I was able to establish a routine and focus fully on the training.

You can take the module in stages – there is a useful 'save' facility so you don't lose the sections you've already completed. However, I recommend that if you can, you complete the course in one sitting – it takes around six hours in total – because, in my experience, stopping and starting tends to have a negative impact on concentration.

Having not engaged in any type of

study for more than 30 years, I was rather apprehensive when asked to try out the IPAF eLearning module. However, I overcame my initial nerves and pressed the link I'd been sent by email.

Welcome to learning

I was greeted by a welcome message with a connection to a website that ran tests to ensure my computer system was compatible. It was, so I pressed the green button in the email message that said 'Access your training'.

Up came a screen that asked me to check my details – name and email address. They were fine, so I set up a password and it was onto the premodule information. Here, and throughout the course, you hear audio narration of instructions along with the text – a cheerful, posh, pleasant-sounding woman's voice accompanying and emphasising the information displayed on the screen.

There are plenty of clear instructions about how to complete the course, although I found it pleasingly intuitive to use. To move from page to page, you simply select the Continue button or scroll/swipe down. On some screens, there is a task or activity to complete and, only once you have done this, are you able to proceed to the next page.

As you progress through each learning module, there are videos to watch along the way. After watching them, you can move to the next section. You can start and stop the video playing at any time, adjust the volume and make it full screen if you so wish.

Within the training there are various pop-up items that need to be uncovered. These boxes might contain important information or give you feedback for an activity – typically a quiz or drag-and-drop game. These help keep the information fresh in your memory and also keep you on your toes.

Once I had completed the various

WHAT THE TEST COVERS

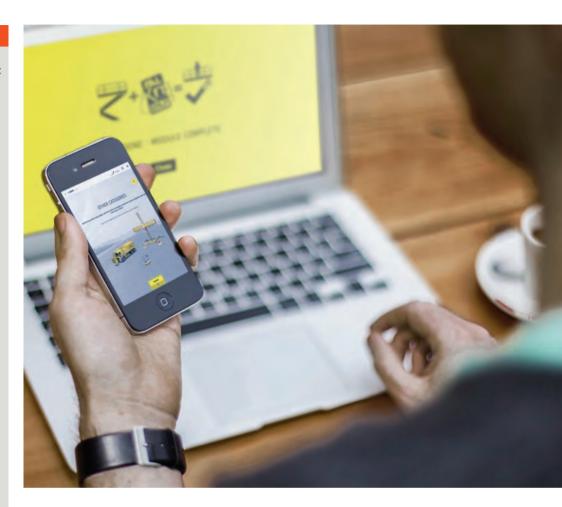
- 1. Introductory module
- 2. Regulations and guidance, accident statistics, legislation
- Health & Safety At Work Act 1974
- Provision & Use of Work Equipment

Regulations (PUWER) 1998

- Lifting Operations Lifting Equipment Regulations (LOLER) 1998
- Work at Height Regulations 2005
- Standards and best practice
 General responsibilities
- BSI
- International Standards Organisation
- 3. MEWPs
- MEWP categories
- Other less common categories
- 4. Structural parts
- Mobile vertical
- Mobile boom
- Stabilising and levelling
- Spreading the load
- Using spreader plates
- 5. Familiarisation; pre-use inspection
- Training and familiarisation
- Pre-use inspection; memory aids
- Decals
- Tampering
- Faults and damage
- 6. Platform movements and travel
- Indoors
- Outdoors
- Travelling in tracked machines
- Route check
- 7. Ground conditions; MEWP selection
- 8. Hazard awareness
- Working envelope
- Greatest load
- Electrical hazards
- Emergency procedure
- Groundbearing pressure
- Fall prevention
- Exiting at height
- Harness statement
- Harness inspection
- Lanyard use
- 9. Operation
- Rescue plan
- Weather; wind
- Anemometer
 Observations
- Constitutions
- Smooth operation
 Safe working load
- Approach
- Overhead obstructions
- Avoid trapping
- Boom flex
- Parking, securing and refuelling

10. Practice theory test

11. Summary



study areas (each of which had a quiz at the end to ensure I had understood it), there was a final practice theory test to verify knowledge and ensure I was prepared to move onto the theory exam and practical assessment.

Towards completion

In the real thing, passing the randomised 30-question test entitles trainees to a preliminary test completion receipt that verifies they have completed the online training module. This enables them to contact their local IPAF-approved training centre and book their half-day theory exam and practical test.

If you successfully complete the module and the subsequent practical testing and training, you will be qualified to operate certain types of MEWP and be entitled to the world-renowned Powered Access Licence – or PAL Card as it's better known – which is recognised worldwide across industries as proof of A solid start
Passing the
30-question test
entitles trainees to a
preliminary test
completion receipt

THE BENEFITS

Although operator eLearning is not intended to replace practical training, it is designed as a compliment, with the advantages that it:

- Offers a flexible means of learning that is highly interactive;
- Enables trainees to complete the theory part of the test anytime, anywhere and at their own pace;
- Allows you to learn at a pace that suits you;
- Works on a range of devices including PCs, Macs, smartphones and tablets;
- Creates engagement by employing games, quizzes, videos and simulations

platform operator training.

As for me, I think I'll keep my feet planted firmly on the ground. US comedian George Carlin summed up how I feel: "I don't have a fear of heights. I do, however, have a fear of falling from heights."

You can learn more by visiting www.ipaf.org/elearning.

The MCWP advantage

Mast climbing work platforms offer a safe and efficient way of tackling challenging projects, enabling contractors to reach new

ast climbing work platforms (MCWPs) have become so specialised and technically advanced that companies can now offer tailor-made designs for individual projects. In combination with passenger and material hoists, MCWPs are able to provide a full vertical access solution at variable heights on a building's façade that was only previously available using scaffold.

Manufacturers offer a range of special features and innovations, including integrated hoist and MCWP access systems using the same components, double-deck MCWPs, and flexible extensions for tackling 'impossible' façade shapes.

As well as being economical, versatile, and lowering the visual impact of exterior building works, MCWPs are also safe ways of working on a façade. Correct assembly is, of course, crucial for the stability, functionality and overall safety of the MCWP, so it is important that both installers and operators are properly trained and made aware of their responsibilities.

Pre-use checks and onsite risk assessments are essential, as is training how to use the machine correctly – ie without exceeding the workload.

MCWP use

Typical applications for MCWPs range from window replacement to lift shaft installation, cladding and refurbishment projects, and much more besides. Brogan Group, for instance, provided a bespoke access solution incorporating MCWPs, scaffolding and goods/passenger hoists on phase one of the Circus West Battersea Power Station development in the UK.

The project was designed by Simpson Haugh Architects and de Rijke Marsh Morgan, and work involves construction of two blocks, varying in height from eight storeys at the southern end, rising to 18 storeys at the



Full solution
MCWPs are able to
provide vertical
access at variable
heights on a
building's façade
that was only
previously available
using scaffold

northern end, built on a podium with two levels of basement parking.

A combination of twin and single MCWPs are supporting cladding work, following the curved perimeter of the building. Standard mast ties would get in the way of the large glazing and copper façade panels, so specially fabricated brackets were installed. The company provided a total of 17 hoists for contractor Carillion.

As well as offering versatile access to

the façade, MCWPs were also chosen for safety reasons. The close proximity of a rail line meant that the avoidance of anything falling from height was crucial, while minimising the risk of distraction to train drivers was also a key consideration.

Heavy-duty project

Meanwhile, a separate project saw Brogan provide five double-stacked MCWPs mounted on heavy-duty heights in versatility. Romina Vanzi, head of regional development and MCWPs, explains

scaffold gantries for the 17-storey Archway Tower refurbishment scheme in north London.

Since the building sits directly above the live underground Station at Archway, the platforms could not be based at ground level or from the existing station roof.

To overcome this, Brogan designed a cantilevered soldier bracket system fixed to the building façade above the station roof, supporting the MCWPs at four separate locations. The stacked platform MCWP configuration safely enabled two crews to work simultaneously on the same elevation, completing façade work efficiently.

Over the past 12 months, Brogan has reported a huge uplift in demand for MCWPs and hoists, and it has continued to invest in new machines for its fleet.

The company has also achieved 1,500,000 man-hours accident free over approximately 26 months, including an accident-free 2015, with more than 700,000 man hours worked.

Bespoke configurations

Another specialist in supplying and installing temporary access solutions in the UK is Apollo Cradles, which also provides bespoke MCWP configurations for contractors. On one project, for

IPAF MCWP COURSE

IPAF's MCWP operator course covers the basic principles of machine assembly, operation, pre-use and weekly inspections, and emergency descent. It is a four-hour course based on a theory session and practical demonstration followed by written and practical assessment. Operators who successfully complete the course receive a PAL Card. More details from mcwp@ipaf.org. Technical guidance on MCWPs, covering safe use, handover, load chart, thorough examination and fall protection, is available at www.ipaf.org/mcwp.

instance, it designed a shelf bracket system fully suspended from the building structure to allow MCWPs to be based above ground level. The company also supplied a monorail system to allow installation of the façade without being reliant on the site tower crane.

On another project, Apollo Cradles' client faced an extremely tight schedule. The answer was to supply double-stack machines, which

accelerated the programme by offering the ability to work in different areas sequentially.

Apollo provided full structural design in line with the EN1495 safe use standard for MCWPs, and said the project was delivered on time as a result.

Offering lower costs and accelerated project delivery, MCWPs are a convenient, safe and effective method for working at height on complex projects.



The quest for consistency

The collaboration between the IPAF Manufacturers' Technical Committee and the Association of Equipment Manufacturers MEWPC has produced a framework for reviewing state-of-the-art human factors and ergonomics in the use of MEWPs

easoned operators of mobile elevating work platforms (MEWPs) sometimes wonder why the controls don't function from machine to machine in a more similar, consistent way.

The control panels can vary in terms of shape, control layout, function actuation, indication and marking, to highlight just a few areas as manufacturers have updated and changed designs.

The quest for consistent humanmachine control interfaces, which is a standing challenge across most industries, has gained increased relevance in the aerial equipment sector.

A joint group from the IPAF Manufacturers' Technical Committee and the US-based Association of Equipment Manufacturers (AEM) MEWPC, working in partnership with the UK Health and Safety Executive (HSE) and Health and Safety Laboratories (HSL), completed its review of human factors and ergonomics in January 2016.

"Manufacturers wanted to ensure the latest knowledge in terms of control placement, operational ergonomics and human factors, including those found in other industries, were adapted and incorporated for MEWP design standards," says Philip Godding, JLG principal product safety and reliability engineer, and chair of the IPAF Manufacturers' Technical Committee.

"While we demonstrated that there was an organic trend towards consistent function operation, this was an opportunity to evaluate the relevance of the latest thinking and to seek global consistency for future products."

MEWP framework

This groundbreaking collaboration produced a framework for reviewing state-of-the-art human factors and ergonomics in the use of MEWPs. It has also led to the development of the first global draft standard for MEWPs to

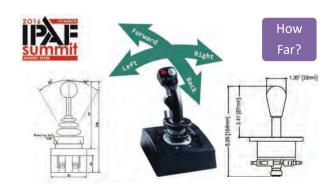


Raising questions Brad Boehler, president of Skyjack, made a presentation about the draft ISO standard at the IPAF Summit. Here is a selection of his presentation slides



consider control function consistency. The aim of all this is to achieve consistent controls performance in order to improve operator safety by reducing the likelihood for human errors where possible. The research identified design as but one factor in minimising the risk of incidents when using MEWPs.

"The outcome of this project tells only part of the story, as manufacturers worked in partnership on an accelerated timeline," Mr Godding elaborates. "Had this work not been prioritised and followed a more traditional review process, it is likely that development of this draft would have taken a further three to five years."



The new draft international standard ISO 21455 Mobile elevating work platforms – operator's controls – actuating forces, displacement, location and method of operation is now under review and comment by the International Organisation for Standardisation (ISO) Technical Committee 214 for elevating work platforms and its Working Group 1 for mobile elevating work platforms, TC214 WG1.

This standard aims to clearly define control performance criteria and introduce additional human factors/ ergonomic elements for controls used on MEWPs. It focuses on the areas of control location, function, movement, layout and markings. This draft is in the early stage of development and should be completed within three years.

What does this mean for end-users? The new draft ISO standard is about developing compliance requirements for protection that meet the expectations of users and about developing performance criteria that can be applied to all MEWP control designs where no previous standard existed, said Brad Boehler, president of

Skyjack, presenting a review of this work at the IPAF Summit.

He said: "It's about addressing the questions: Where? How? How hard? How far? Where are the controls located? How are they activated forward, back, push, pull? How hard do you have to push it? How far will the machine go – forward, back, left, right? How should different actuators be evaluated, whether push-button, joystick, touchscreen?"

The draft standard is a first of its kind for the industry in bringing consistency to where controls are located and how they are activated.

Design innovation

IPAF technical & safety executive Chris Wraith says: "We should not lose sight of the aim of standardising MEWP control design and functionality to improve safety, but this must be done without smothering the ability for design innovation. Take the automotive industry – cars have key controls that are the same in all models. Foot brake and foot accelerator are always in the same sequence and position. But indicators, windscreen wipers and lights may be

located in different positions. Even the sequence of gears may be different."

On the question of what percentage of accidents could be attributed to controls and errors, Mr Boehler said that these could be traced to a multitude of factors.

"The causes of the accidents analysed were less about control position and ergonomics, and more about what operators do in specific work environments," he said at the summit. "The draft standard is about defining where controls are located in an expected space, the directionality of controls, and force, ensuring any ambiguity of operation is reduced as much as possible."

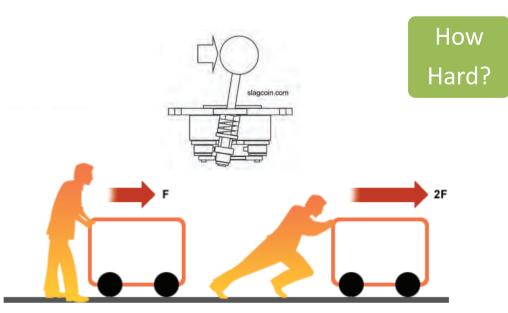
Does this mean that MEWPs are now going to operate the same way? No, and they never have, said Chris Wraith.

He explains: "While the trend is towards standardisation and internationalisation, most standards are written in 'descriptive' language as opposed to 'prescriptive' language. This allows manufacturers to introduce new innovative features and designs while still complying with the standards. It provides opportunity to consider advances in technology and allows continual product development – something prescriptive standards would stifle."

Mr Wraith stresses that familiarisation is the key – and professional training is essential. But on top of that, managers must make sure specific machine familiarisation takes place for all operators. Operators should ensure that they are familiarised with each specific machine before use.

To be safe, never assume similar machines operate the same. Always make sure that you know and understand the specific features of the MEWP you are operating at all times.

See IPAF's technical guidance F1 on familiarisation at the Publications/ Technical Guidance section of www.ipaf.org.



Elevation innovation

A selection of powered access equipment in action from projects around the world

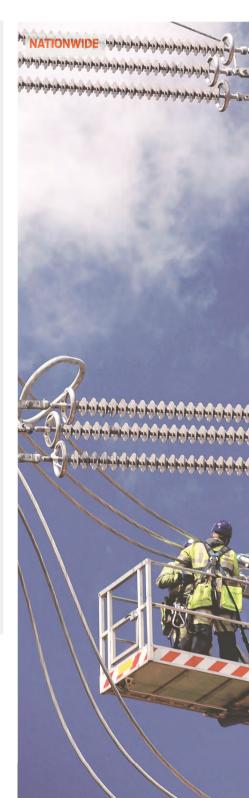


Two **Alimak Hek**IHEK MC 450 mast climbing work platforms were used to finish façade work, repairs and some window work for a hotel/office building in Iceland. With a payload capacity of 2,500 to 4,500 kg, 20 m wide and with a lifting height of 30 m, the HEK MC 450 was capable of transporting all the materials needed for the façade work, significantly reducing time spent on transporting materials.

Nationwide Platforms supplied two 50 m Bronto S50XDT-J truck-mounted platforms to help install the first six T-pylons in the UK. Once installed, the truck mounts were used to enable contractors to train technicians in the installation and rigging of the pylon, which is due to replace up to 88,000 pylons throughout the UK within the next 10 years.

CTE UK claims to have revolutionised the electrical and hydraulic systems of the CTE B-LIFT 17E, a CTE B-LIFT 27 and a CTE ZED 21.2 JHV with the introduction of a CAN BUS management system and a new hydraulic management system. It features fully proportional electrohydraulic controls, variable engine speed, smooth manoeuvres with acceleration and deceleration ramp, and an electric PTO.

Amager Bakke is a large construction site in Denmark, Sipral, a Czech supplier rented the **Genie** SX-180 and Z-135/70 to help meet its height, handling and mobility requirements.









Reaching far and wide

Haulotte's aerial work platforms have occupied the construction site of Abu Dhabi Midfield Terminal Complex (MTC) in United Arab Emirates. The majority of Haulotte models working at MTC are the Haulotte articulated boom (32 m and 41 m) and the 43 m telescopic boom. The 41 m boom has a maximum outreach of 19.8 m and a best lifting speed of less than 40 seconds, while the 32 m articulated boom and 43 m telescopic booms are well-known for their rough terrain capabilities.

Contractors working at Derby County FC's Pride Park Stadium in the UK hired some of the largest boom lifts in the AFI fleet for a painting contract at the football club. Whittle Programmed Painting hired two Genie Z135 articulating boom lifts with working heights of 43.15 m, together with a JLG 800AJ, Haulotte HA20PX and Genie GZ45 articulating boom. Whittle's work involved painting 5,200 sq m of galvanised roofing and 4,250 sq m of steelwork, together with lower level areas of the stadium.

At Westferry Circus in London's Canary Wharf, the Palazzani XTJ43 was selected for TCA Lifting's job of steam-cleaning the building and cleaning its windows because of its 43 m working height and telescopic fly jib, which allows precise positioning at height. The Palazzani XTJ43 has multiple outrigger positions and maintains full working height and 360-degree slew in all positions. This was essential to allow the machine to set up on a narrow pathway, avoiding any manhole covers or similar obstacles.

Specialist access contractor **Brogan Group** recently completed a combined access package for the redevelopment of the mammoth Archway Tower in Islington, north London. The project required a complex, combined access design by Brogan Group as it called for full-height perimeter access in the form of scaffolding and mast climbing work platforms, along with access to the full façade of the building's south elevation to carry out demolition and recladding works. Access to the façade was provided by double-stacked mast climbing work platforms. Because of the location, these could not be founded at ground level or from the existing station roof. To overcome this, Brogan designed a cantilevered soldier bracket system fixed to the building façade, located above the station roof, to support the mast climbing work platforms at four separate locations.











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DIRECTORIES

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IPAF training is provided by a network of approved training centres that operate independently. This directory helps you find your nearest training centre in the UK and around the world. All active IPAF training centres are subject to audits and expected to meet stringent quality procedures. New centres are being added every month. To see the most up-to-date list, visit www.ipaf.org

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IMER

Pegognaga (MN) Italy +39 0376 554011 www.imergroup.com

ICR

Rocester, Staffordshire United Kingdom +44 1889 594155 www.jcb.com

Jinan Huabei Lifting Platform Manufacture

Shandong China +86 531 84250033 www.tianti.com.cn

JLG*

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KLUBB

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Leguan Lifts

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Multitel Pagliero

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Omme Lift

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Outreach

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Palazzani

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Palfinger Krefeld

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PB Lifttechnik

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Platform Basket

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Power Towers *

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Ruthmann Gescher-Hochmo

Gescher-Hochmoor Germany +49 2863204-0 www.ruthmann.de

Scanclimber Pirkkala

Finland +358 10680 7000 www.scanclimber.com

Are you trained to use this equipment?

If not, you should be!

Ask your rental company about IPAF training. www.ipaf.org



Shenzhen Gaoli Aerial Work Equipment

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Canada +15198370888 www.skyjack.com

Snorkel *

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TCA Lift

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Teupen *

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Time International

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XCMG Fire-fighting Safety Equipment Co, Ltd

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Xuzhou Handler Special Vehicle

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Youngman Maldon Essex

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Zhejiang Dingli Machinery

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IPAF Rental+

Companies that carry the IPAF Rental+ quality mark have been independently audited as meeting defined standards in customer



service, safety, staff training, contract terms and machine inspection. Companies get a return visit from the auditors every year.

Visit www.ipaf.org for the current list of IPAF Rental+ companies.

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Highway Plant Co Ltd

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Lifterz Ltd

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LTC Training Services

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Mainline (1982) Ltd

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Riwal UK Ltd

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Smart Platform Rental Ltd

Trafford Park Manchester United Kingdom +44 333 9009100 www.smartplatforms.co.uk

What is IPAF?

The International Powered Access Federation (IPAF) promotes the safe and effective use of powered access equipment worldwide. It provides technical advice and information, influences and interprets legislation and standards, and runs safety initiatives and training programmes.

It is a not-for-profit organisation owned by its members, who include manufacturers,

rental companies, distributors, contractors and users. Members operate about 90 per cent of the MEWP rental fleet in the UK and manufacture some 85 per cent of platforms on the market.

IPAF's training programme for platform operators is certified by the international certification organisation TÜV as conforming to ISO 18878. More than 130,000 operators are trained each year through a worldwide network of over 660 IPAF-approved training centres. Successful trainees gain the PAL Card (Powered Access Licence), the most widely held and recognised proof of training for platform operators.

Membership is open to users of platforms, manufacturers, distributors, rental and training companies. Members can access practical information and a growing portfolio of member services. More information is available from info@ipaf.org

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IPAF Approved Training Centres train more than 100,000 operators every year in the safe and effective use of powered access platforms.

The IPAF PAL Card is recognised worldwide across industries as proof that your operators have been trained to the highest safety standards and meet all legal requirements.

Find an IPAF approved training centre at www.ipaf.org

The IPAF operator training programme is certified by TÜV as conforming to ISO 18878.

