

# **Working at Height in Confined Spaces**

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## Working at Height in Confined Spaces

- **Introduction**
- **Confined space?**
- **Developments**
- **Strategic Forum Guidance**
- **Conclusion**

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## Facts

- Acknowledged by many to be the safest and most efficient means of providing temporary access to height for many work activities
- The use of MEWPs has increased as benefits for productivity and safety are recognised
- Helped reduce number of fatalities from falls from height
- More trained operators and managers than at any other time
- Accidents can be avoided if good practice is encouraged and followed
- MEWPs are being used in more and more challenging areas

## Confined space?

***"any place, including any chamber, tank, vat, silo, pit, trench, pipe, sewer, flue, well or other similar space in which, by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk; (Regulation 1 (2))***

Refers to: -

- Risk assessment
- Planning
- Correct equipment selection
- Supervision
- Competent persons
- Emergency rescue



**Confined space “by virtue of its enclosed nature, there arises a reasonably foreseeable specified risk”**



**Where there is a risk of being crushed against fixtures or other obstacles while accessing their work area, or while working at height.**

## The problem with “confined spaces”

**2003 to 2009 in UK there were 13 fatalities in MEWPs**

**9 involved booms: 6 of which were trapping incidents, including 4 since Feb 2008**



“The man telescoped the boom's platform through an opening into the building to reach something. On retracting the platform he decided to drive the machine rather than telescope in and that the axle of the lift dropped into a depression causing a catapult effect which thrust the man upwards into a steel beam breaking his neck”. Vertikal.net February 13, 2008

## Why? ...When we have detailed legislation, guidance and information

Management of Health & Safety at Work Regulations 1999

Provision and Use of Work Equipment Regulations 1998

Lifting Operation and Lifting Equipment Regulations 1998

The Work at Height Regulations 2005

HSE Approved Codes of Practice

BS 8460:2005 – Code of Practice for the Safe Use of MEWPs

CIS 58 - The Selection and Management of MEWPs (HSE)

Technical Guidance Notes

Trade & Training Association manuals – IPAF CSCS CP

Manufacturers operating manuals

Individual company guidance

Expert advice – Hire companies, Safety professionals

**Risk Assessment**

**Planning**

**Equipment Selection**

**Competence**

**Supervision**

**Emergency rescue**

## Possible contributing factors

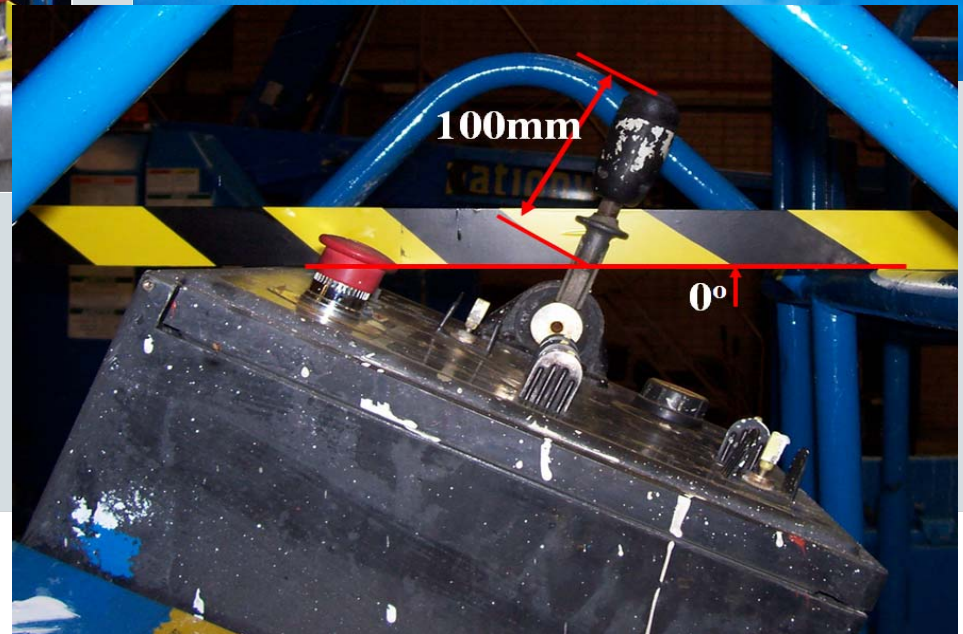
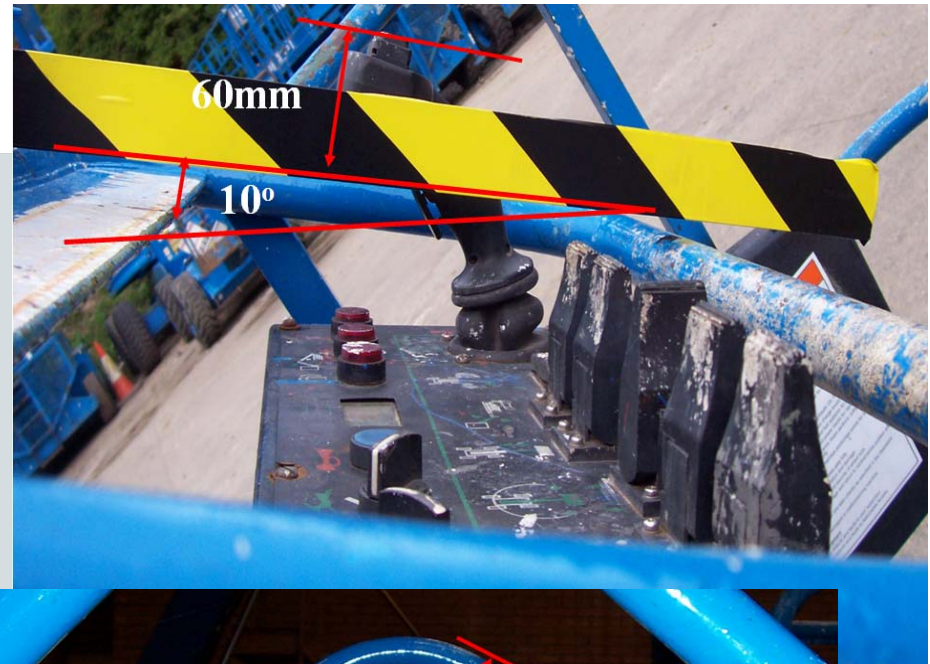
- Poor MEWP route planning
- Poor MEWP selection
- Insufficient MEWP familiarisation
- Uneven ground
- Poor visibility at height
- Distractions when operating MEWP
- Objects placed on the control panel
- High drive speeds, or lack of care
- Overriding MEWP controls

## Accident investigations highlighted several serious issues

- Unaware of incident
- No emergency rescue plan
- No key in ground level controls
- Overload cell has been activated
- Lack of familiarity with ground / emergency descent controls



## Drive to design out the problem



In 2005 HSE issued a press release advising that MEWP manufacturers needed to address the design of controls which allowed for the possibility of sustained involuntary operation.

## Results



## Strategic Forum Plant Safety Group

Reduce fatalities in high risk areas of the Construction industry

Tower cranes

Quick hitches

MEWPs - Avoiding trapping/crushing

- Completed in 10 months
- Experts from throughout the industry
- Highlighted differences of opinion
- No one quick fix



Best Practice Guidance for MEWPs

Avoiding Trapping / Crushing Injuries to  
People in the Platform



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## Guidance - Part 1

### Directed at management: -

- Hazards
- Planning
- Supervision
- Competency
- Additional safety devices

#### Strategic Forum for Construction Plant Safety Group

##### Best Practice Guidance for MEWPs Avoiding Trapping / Crushing Injuries to People in the Platform

##### Part 1: Guidance for planners, managers and trainers

##### 1. Purpose of Part 1

Anyone involved in planning work with MEWPs, specifying equipment, managing work and organising training for those working with MEWPs should read Part 1, which includes guidance on the hazards to be considered and ways of controlling risk.

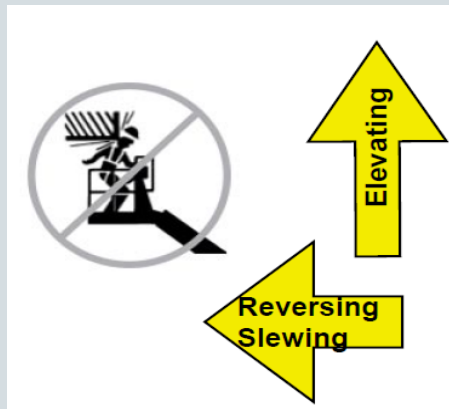
Note that this document is not intended to be complete guidance on all aspects of MEWP operation.

Operators of MEWP must at all times be trained and competent.

## Guidance - Part 2

### Directed at operational staff: -

- Risk
- Factors increasing the risk
- Common rescue problems



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Best Practice Guidance for MEWPs -  
Avoiding Trapping / Crushing Injuries to People in the  
Platform



Part 2: Guidance for Trained Operators and Rescuers

**How to use this guidance**

This is the second part of guidance produced by the Strategic Forum for Construction Plant Safety Group. Part 1 is aimed at planners, managers, and trainers. It provides information on hazards, risk assessment, controls and responsibilities. The annexes to Part 1 provide detailed information which can assist in the identification of trapping risks and in the planning and managing of work activities to protect against entrapment accidents.

Part 2 is aimed at those using MEWPs and those responsible for rescuing anyone trapped on a MEWP platform. Part 2 has been designed to be used in briefings or toolbox talks.

Note that this document is not intended to be complete guidance on all aspects of MEWP operation.

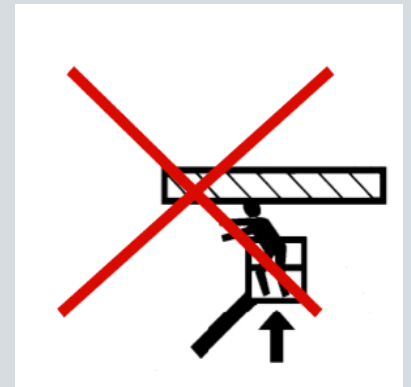
Operators of MEWP must at all times be trained and competent.

## Guidance - Part 2 - Ten ways to reduce the risk

- 1) Plan - to avoid obstructions
- 2) MEWP Selection
- 3) Familiarisation
- 4) Ground conditions
- 5) Good visibility
- 6) Minimise distractions
- 7) Do not obstruct controls
- 8) Correct stance
- 9) Do not miss-use or use defect machine
- 10) Rehearse emergency lowering

Movements should always be slow, deliberate and planned. This is achieved by careful use of the MEWP's proportional controls.

The sequence of control use given below is recommended:



## Conclusion

- MEWPs are one of the safest means of accessing work at height
  - Recent years have seen increase in incidents
  - New Guidance is well presented and focused on key area
  - Offers practical advice
  - Compiled by experts from all aspects of the industry
  - It complements the mass of exiting information already available
  - It reinforces the importance of and necessity for: -
    - ✓ Risk Assessment
    - ✓ Planning
    - ✓ Equipment Selection
    - ✓ Competence
    - ✓ Supervision
    - ✓ Emergency rescue
- **Two fatal incidents occurred during development of the guidance (10 months)**
  - **One scissor lift & one boom type**
  - **The latest fatality was the same week the guidance was published**

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**BUT.....**

**....It has to become a living document and not just gather dust on a shelf: -**

- Everyone engaged in the supply or use of MEWPSs should familiarises themselves with the guidance and act on its recommendations**
- Everybody must play their part in improving all safety standards throughout the industry**
- Information from future incidents is shared and acted upon enabling continual reduction in fatalities**

**Thank you for listening**



**Any Questions**