

MEWPS AND ENTRAPMENT



Joy Jones

Construction Division Sector
Safety Team

What I'm Going to Cover

- Accident history
- Guidance
- Current HSE field work
- HSE line on anti entrapment devices

The case for mewps...





Accidents

- Falls dominate fatal and serious
- In construction more than half
- MEWPs have been very important in reducing falls accidents

**BUT THEIR USE NEEDS TO BE
MANAGED**

Why the interest in entrapment?

The problem with
statistics...

HSL report – world incidents

Cause	Scissors	Artic boom	Tele boom
Falls	43	14	9
Overturn	53	17	5
Trapped	26	16	2
Injured by	21	3	1
MEWP fail	4	7	6
Electrocution	0	3	0

HSL Incident Analysis

- Analysed accidents in UK, USA & NZ over a 10 year period
- UK – Riddor reports
- USA – OSHA reports
- NZ – Dept. of Labour

Health and Safety
Executive



GUIDANCE

Guidance - Milestones

- 2005 press release sustained involuntary operation (SIVO)
- 2007 /8 Balfour Beatty policy – wires/shrouds
- 2008 CIS 58 Selection and Management of Mewps
- Autumn 2009 Strategic Forum for Construction Plant Safety Group (PSG) – not just SIVO
- July 2010 PSG Crushing Guidance
- Autumn 2010 IPAF Safety Forum
- Summer 2012 update – anti entrapment devices



Best Practice Guidance for MEWPs

Avoiding Trapping / Crushing Injuries to People in the Platform



Strategic Forum for Construction
Plant Safety Group



Health and Safety
Executive

The selection and management of mobile elevating work platforms

HSE information sheet

Construction Information Sheet No 58

Introduction

This information sheet is aimed at those responsible for selecting, specifying and managing mobile elevating work platforms (MEWPs) on site and should be read alongside *Preventing falls from boom-type mobile elevating work platforms*.¹

It tells you what you should consider before selecting a MEWP to gain access to work at height and the risks that need to be managed while the MEWP is in use.

The Provision and Use of Work Equipment Regulations 1998 (PUWER) require the risks from using equipment at work to be prevented or controlled and Part III of PUWER specifically focuses on minimising the overturning risks associated with mobile work equipment such as MEWPs. This is particularly relevant when considering the ground conditions that the MEWP will cross and be used on, and *how* it will be used, eg to install long or heavy materials.

Best Practice Guidance

- Controversy around retrofitting
- Machine v application
- Section 6 – fitting additional devices
- Supply of Machinery Regulations and Provision and Use of Work Equipment Regulations
- Possible legally
- Do properly
- Guidance on MEWP selection Summer 2012

HUMAN FACTORS RESEARCH

Why research?

- Underlying causes
- Person/machine interface
- People make mistakes
- Design features to prevent mistakes/anticipate foreseeable misuse
- Identify priorities for improvement
- Underpin engagement with MEWPS industry

HSL Research – Human Factors

- Phase 1: Incident Analysis
- Phase 2: Ergonomic and Human Factors Evaluation of MEWP designs
- Phase 3: Interviews with MEWP experts and end-users

Research Phase 3 - Suggested training improvements

- More representative site conditions
- Longer
- Timely refreshers for occasional users
- Consistency across providers
- Promote mewps for managers (M4M)

Current Field work

- 2012 – 13 100 visits
- Consider implementation of crushing guidance
- Key areas
 - Consideration of entrapment risk
 - Selection
 - Familiarisation
 - Management
 - Rehearsed Rescue procedures

HSE Line on Anti Entrapment Devices

- Not a substitute for all the other elements needed to manage risk
- No universal solution
- Although trialled, some legitimate reports of difficulty eg now standing on guard rails
- Longer term solution is to achieve design improvements

Blanket Policies

- Who is best placed to assess and manage risk?
- Availability of specified solutions
- Known problems with machine familiarisation – if force to use different machine just because it has a device does that reduce or improve risk management?
- Without flexibility can be counter productive

Blanket Policies

- Focus on leadership and worker involvement
- Commend procurement policies as examples of leadership
- But for success need worker involvement too and inflexible dogmatic rules can undermine

Summary

- Contractors are free to adopt blanket policies
- But they may be counterproductive
- Holistic approach needed
- When concerns are raised need to listen and respond