

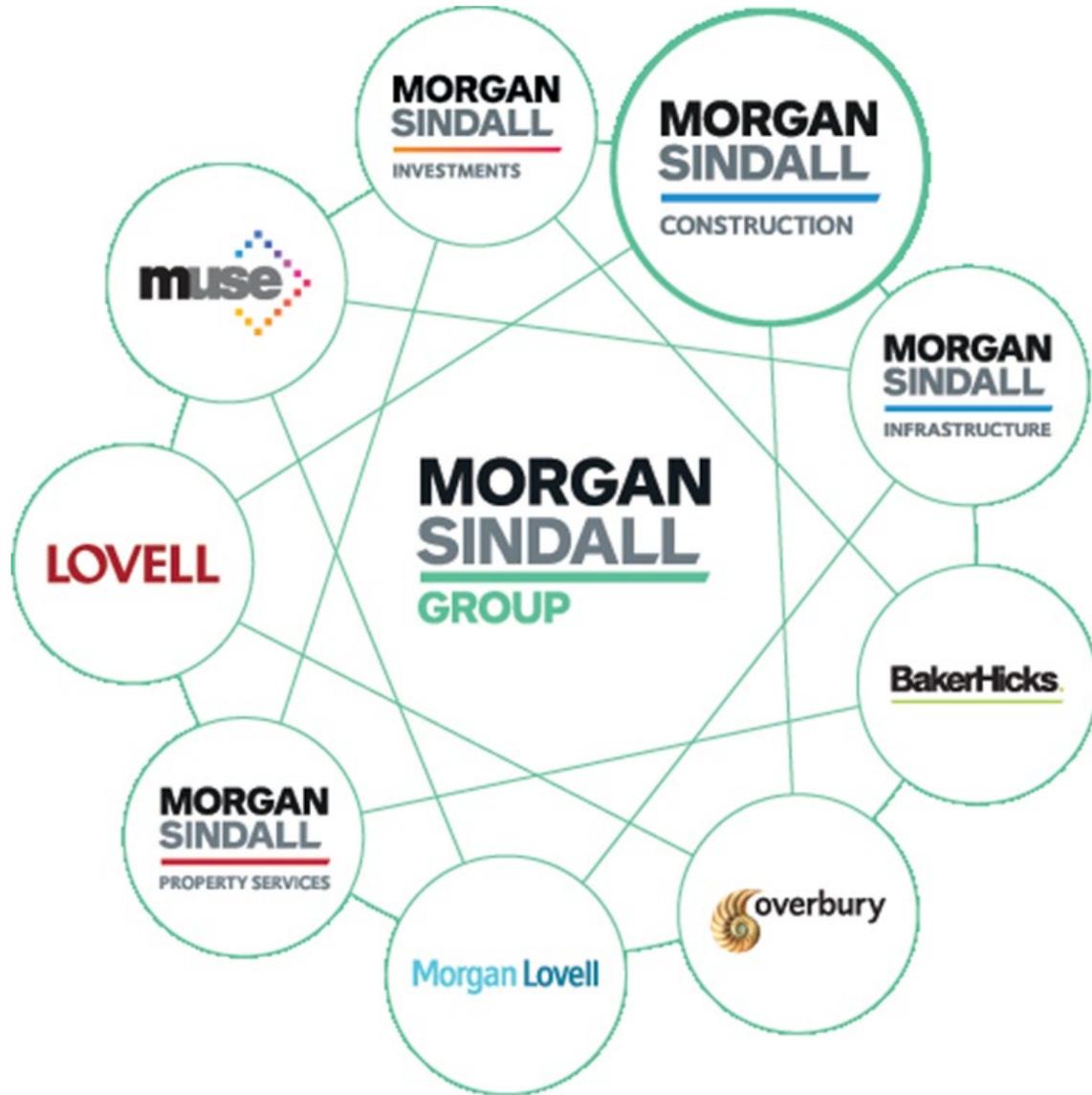


# Trials & Tribulations – The Contractors View

Martin Hall – SHE Director  
Date 2021



**MORGAN  
SINDALL**  
CONSTRUCTION



# OUR PURPOSE

To create inspiring places that enhance the communities in which we all...



LIVE



LEARN



WORK



PLAY



CARE



PROTECT



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## My Thoughts and Considerations



## Dropped Objects

Our new challenge



## First Contact

Deliveries/ Off loading/Familiarisation



## Its not a crane

Equipment abuse, and incorrect utilisation



## Its an Emergency

What and how to rescue an operator



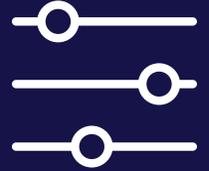
## Help me Select

The right bit of kit for the task!



## Competency

What is competency

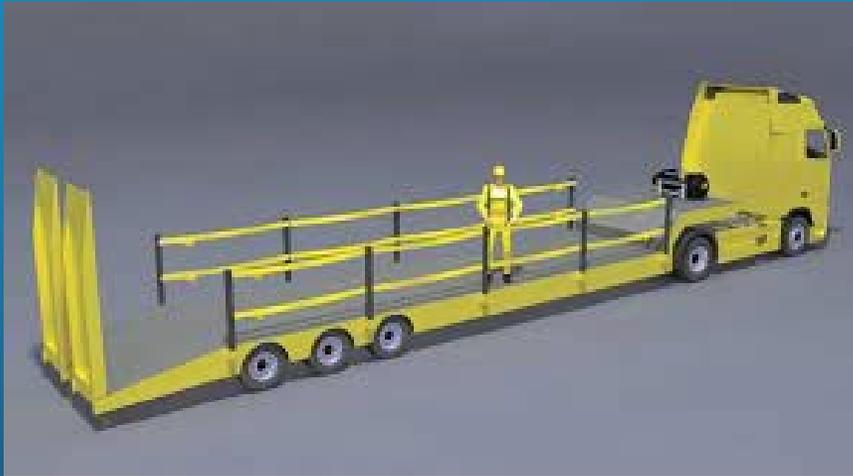


## Charging & Fuel

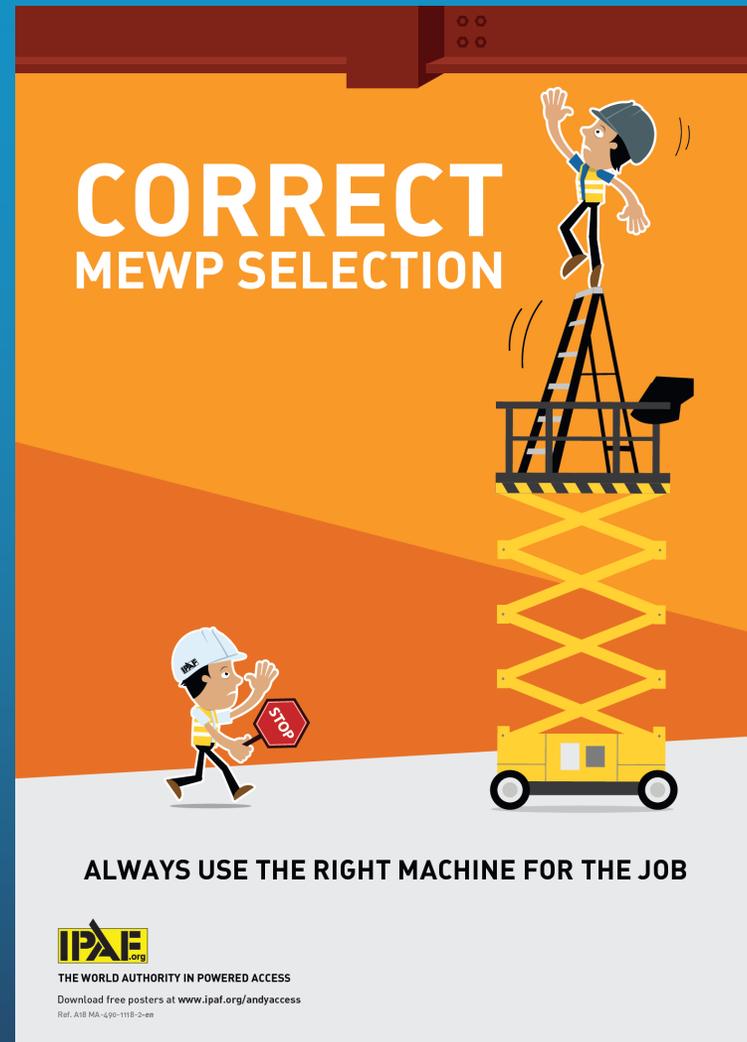
High risk element



## First Contact



- Safe delivery – planned, managed & Executed.
- Driver competency
- Documentation
- Briefing



Selection of the correct bit of kit is fundamental to the safe and efficient delivery of the task.

# Dropped Objects Impact Force!

		Weight of Dropped Object									
		0.5 kg (1 lbs)	0.9 kg (2 lbs)	1.4 kg (3 lbs)	1.8 kg (4 lbs)	2.3 kg (5 lbs)	2.7 kg (6 lbs)	3.2 kg (7 lbs)	3.6 kg (8 lbs)	4.1 kg (9 lbs)	4.5 kg (10 lbs)
Drop Height	91 m (300 ft)	197 kg (434 lbs)	393 kg (867 lbs)	590 kg (1,301 lbs)	787 kg (1,735 lbs)	983 kg (2,168 lbs)	1,183 kg (2,608 lbs)	1,377 kg (3,036 lbs)	1,574 kg (3,469 lbs)	1,770 kg (3,903 lbs)	1,967 kg (4,337 lbs)
	61 m (200 ft)	161 kg (354 lbs)	321 kg (708 lbs)	482 kg (1,602 lbs)	642 kg (1,416 lbs)	803 kg (1,771 lbs)	964 kg (2,125 lbs)	1,124 kg (2,479 lbs)	1,285 kg (2,833 lbs)	1,446 kg (3,187 lbs)	1,606 kg (3,541 lbs)
	46 m (150 ft)	139 kg (307 lbs)	278 kg (613 lbs)	417 kg (920 lbs)	557 kg (1,227 lbs)	695 kg (1,533 lbs)	835 kg (1,840 lbs)	974 kg (2,147 lbs)	1,113 kg (2,453 lbs)	1,252 kg (2,760 lbs)	1,391 kg (3,067 lbs)
	30 m (100 ft)	113 kg (250 lbs)	227 kg (501 lbs)	341 kg (751 lbs)	454 kg (1,002 lbs)	568 kg (1,252 lbs)	681 kg (1,502 lbs)	795 kg (1,753 lbs)	909 kg (2,003 lbs)	1,022 kg (2,253 lbs)	1,136 kg (2,504 lbs)
	15 m (50 ft)	80 kg (177 lbs)	161 kg (354 lbs)	241 kg (531 lbs)	321 kg (708 lbs)	401 kg (885 lbs)	482 kg (1,062 lbs)	562 kg (1,239 lbs)	642 kg (1,416 lbs)	723 kg (1,593 lbs)	803 kg (1,771 lbs)
	6 m (20 ft)	51 kg (112 lbs)	102 kg (224 lbs)	152 kg (336 lbs)	203 kg (448 lbs)	254 kg (560 lbs)	305 kg (672 lbs)	356 kg (784 lbs)	406 kg (896 lbs)	457 kg (1,008 lbs)	508 kg (1,120 lbs)
	3 m (10 ft)	36 kg (79 lbs)	72 kg (158 lbs)	108 kg (238 lbs)	144 kg (317 lbs)	180 kg (396 lbs)	215 kg (475 lbs)	251 kg (554 lbs)	287 kg (633 lbs)	323 kg (713 lbs)	359 kg (792 lbs)
	2 m (6 ft)	28 kg (61 lbs)	56 kg (123 lbs)	83 kg (184 lbs)	111 kg (245 lbs)	139 kg (307 lbs)	167 kg (368 lbs)	195 kg (429 lbs)	223 kg (491 lbs)	250 kg (552 lbs)	278 kg (613 lbs)
		Serious			Severe				Fatal		

The average hammer weighs 0.5Kg and would have an impact force of 51Kg if dropped from just 6m, potentially causing serious injury. A 1.75Kg cordless drill dropped from the same height would have a force of around 200Kg

## MEWPS

For all MEWPs the following must be implemented to prevent materials and tools from being dropped:

- Focus on containment of equipment within the basket – the basket is not designed for storage of tools and materials:
  - such as SkyScreen basket protection (See image right)
- Use of proprietary handling equipment for MEWPs such as:
  - pipe cradles
  - panel or board carrier
  - cladding brackets

**REMEMBER** that any accessory added to a MEWP will have an impact on the wind rating – always check with the provider



## MEWPS

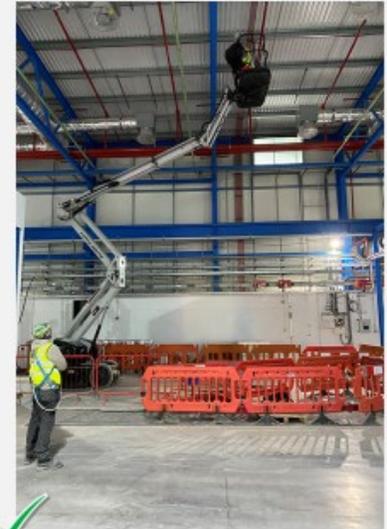
Tool tethering is mandatory when working within any MEWP where the platform is at a height of 2m or more.

In addition to tool tethering, small tools and materials, such as fixings must be secured, solutions such as those below should be considered.

- MEWP tool bags
- Tool pouches



Exclusion Zones must be in place around all MEWP operations to a 5:1 ratio based on the operating height and radius of the basket?



# DON'T USE A MEWP AS A CRANE!



MEWPS ARE DESIGNED TO ELEVATE PEOPLE,  
TOOLS & EQUIPMENT INSIDE THE WORK PLATFORM

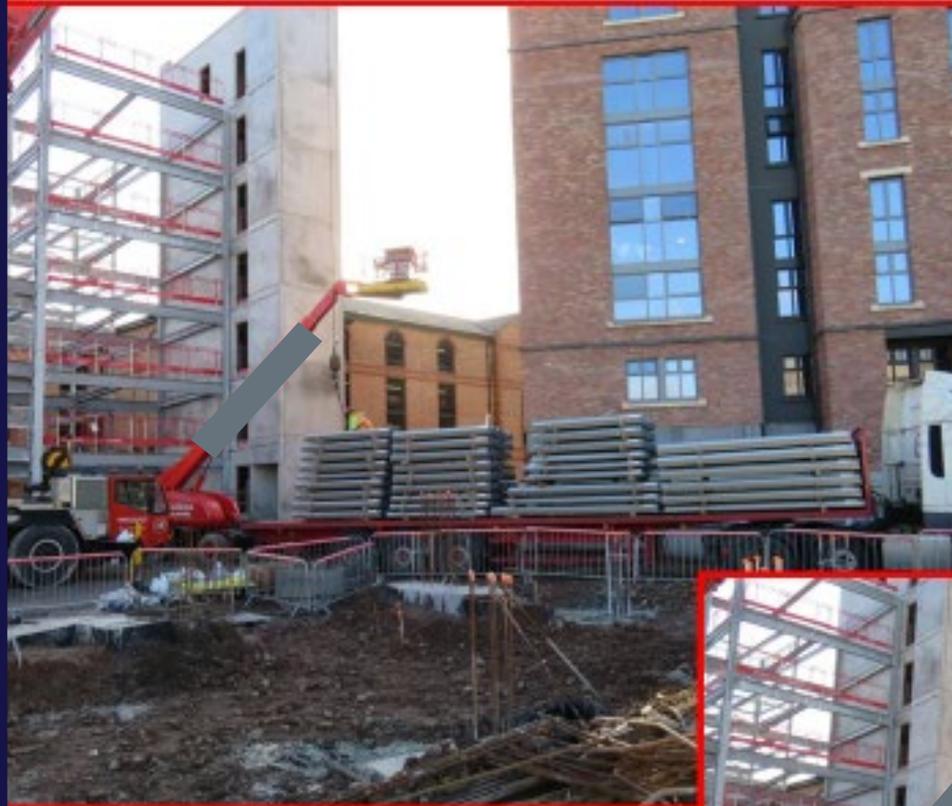


THE WORLD AUTHORITY IN POWERED ACCESS

Download free posters at [www.ipaf.org/andyaccess](http://www.ipaf.org/andyaccess)

Ref. A9 MA-741-1118-2-en

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ation of the MEWP as a  
ess point during deliveries was  
diately stopped.



### 100% Safe SHE Alert

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#### Learning Event – 32 Amp 110V Extension Lead

An incident occurred recently where a 110V extension lead with a 32A plug showed signs of severe damage due to overheating. This had the potential to cause a fire.

The investigation is still on-going, however the initial findings are that, although this lead had a 32A plug, the cable was only rated to 20A and was being used to charge a MEWP which required a 32A cable.

The manufacturer of this cable sells two versions with a 32A plug, one with a cable size of 2.5mm<sup>2</sup> (20A), and one with 4mm<sup>2</sup> (32A).

In this instance the cable was marked 'Do not Exceed 20A'. This may not always be the case, however the cable will be marked 2.5mm<sup>2</sup> or 4mm<sup>2</sup>.

Our policy with the Plant Desk is that only 32A (4mm<sup>2</sup>) cables will be supplied, but this issue may be present within the supply chain. This is also a requirement of CASSE section 6.8.

Action – Communicate alert to your local supply chain, review 32A leads at all projects and remove those marked '20A', or 2.5mm<sup>2</sup> Cable.



Everyone has the right to be  
**100% Safe**

Reference	Issue Date	Display Until Date
SHE-ALT-0021006	27/10/21	31/10/21



Electrical fault on 10kva transformer  
Charging 17 Scissor Lifts in a dedicated charging area  
75% building Completed – Complete loss

# Minimum Standards

### Plant and Equipment Minimum Standards

**100% Safe Visual Standard**  
Mandatory – Must be applied at all locations

**Mandatory**

## MEWPs (Boom Type) Harness Use

Operators working in the basket MEWP must wear a full body harness lanyard short enough for the work within the platform.

This includes static booms (Category 3b).

Lanyards must only be connected to an anchorage point within the machine.

If working near to, or over water, the work must be undertaken to determine a greater risk to the operative is from falling or drowning, before deciding the required. (See HSE GIS06 for more information)

Everyone has the right to be **100% Safe** **MANDATORY**

**100% Safe Visual Standard**  
Mandatory – Must be applied at all locations

**Mandatory**

## MEWPs (Boom Type) Anti-entrapment

All boom type MEWPs on Morgan Sindall projects **must**:

- Have a suitable anti-entrapment device which must automatically stop the movement of the machine as soon as a potential entrapment occurs.
- Have an audible and visual warning alarm fitted to alert users at ground level of an entrapment.
- Be taken out of service immediately if not fitted with anti entrapment device.

A written rescue plan must be in place for any MEWP, and operatives must be briefed on the requirements, and drills undertaken and recorded.



For Further guidance please refer to Construction Plant Hire Association Guide 'Avoiding trapping/crushing injuries to people in the platform'

Everyone has the right to be **100% Safe** **MANDATORY**

Everyone has the right to be **100% Safe** **MANDATORY**

*Pat Boyle*  
Pat Boyle  
Managing Director  
Construction

Document Reference	Revision	Date	Document Owner
SHE-VIS-004	Rev 1	JULY 20	M. RUIZ

## Management System

Standard

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### Safe planning and operation for Mobile Elevated Working Platforms (MEWPs)

This document sets out the Morgan Sindall standards for the control of Mobile Elevated Work Platforms (MEWP) on its projects. It covers all types of the term MEWPs from boom and basket ("Cherry Picker") to Scissor Lifts ("Flying Carpets") and includes small medium and large versions. The aim of this document is to set a standard of control and operation of these machines and provide direction for the projects and users.

This document need to be read in conjunction with other Morgan Sindall Standards relating to Work at Height, Lifting operations, and Plant & Equipment.

#### Design, planning and selection

Use of MEWPs on our projects must be considered in the tendering, design, planning and delivery phases of projects.

- Designers, planners, estimators, project managers or site supervisors must consider the work at height hierarchy, for example:
  - Can the work be undertaken from ground level
  - Can the relative ground level be raised eg use of scaffold platform
  - Can scaffold towers be used
  - Is the use of mobile elevated working platforms (MEWP) an option
- If Designers, planners, estimators, project managers or site supervisors consider that a MEWP is the appropriate tool for use then they need to select the correct one for the task and should consider the areas detailed in **appendix A**
- The use of MEWPs on construction sites must be considered as temporary works and should be included in the temporary works designs at the design stage to ensure ground conditions are considered
- Due considerations should be made where appropriate to ground surfaces both internally (floor coverings etc) and externally (ground conditions etc)
- Proximity to crush risks must be assessed at the planning stage and controls identified in the risk assessments
- Any Subcontractors planning to use MEWPs must agree the MEWP selection with the Morgan Sindall site MEWP coordinator, prior to arrival on site
- Assessments must take into account the use of MEWPs near water, due to the additional risks associated with being attached and the potential risk of drowning if the MEWP falls into the water, if a MEWP has to operate near water, alternative measures have to be considered to prevent falls.

#### Procurement standards

Any machines hired by either Morgan Sindall or a Contractor must comply with, BS8460 Safe use of MEWPs, which must be included in the procurement request when ordering MEWPs.

- Machines should have records showing maintenance in accordance with the manufacturers schedules.
- Ideally any MEWP should be less than five years old, older machines can be used at the MEWP coordinators discretion.
- It must meet the requirements of BS EN 280 standard (mobile elevating work platforms)
- Any MEWP used on electricity transmission sites must comply with the following additional requirements:
  - It is essential that all earth bonding i.e. between the access platform / bucket and the vehicle chassis, and the vehicle chassis and earth must be made using appropriately sized earths, advice should be sought from the electrical duty holder as required.
  - Where a field earth attachment is required i.e. a copper jug handle on chassis – this should be checked on delivery

#### On Site Control and Management

Effective management of any mobile plant on our projects is essential. MEWPs have additional considerations as they contain personnel and move in three dimensions, which means the operators and supervisors must have a good understanding of the machines. Morgan Sindall has set the following standards with

Revision Status	Document Owner	Date	Page
Rev 1	Martin Hill	Jan 2020	1 of 7

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What Next - else

*'I don't know what I don't know until you try and sell it to me'*

## Emergency Preparedness



alamy

Image ID: E84W85  
www.alamy.com

Link to A3 Film – Separate file.

The image features a stylized graphic of the letters 'Q', '&', and 'A'. The 'Q' and 'A' are rendered in a bright blue color, while the ampersand is in a dark navy blue. The letters are set against a white background with a light green rounded rectangle at the top and a light red rounded rectangle at the bottom. The 'Q' has a thick, rounded tail that curves downwards and to the right. The ampersand is a classic, slightly calligraphic font. The 'A' is a simple, bold, sans-serif font.

Q&A

*Everyone has the right to be*

**100% Safe**



**Safe  
places**



**Safe  
choices**



**Safe  
relationships**



**Safe by  
design**



**Safe  
lives**