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Webinar

The new BS8460:2017 Code of Practice Safe use of MEWPs

The new BS8460:2017 Code of Practice Safe use of MEWPs

Presented by:
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Your Speaker

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MHE 12.1 Working Group 1 MEWP BS8460 Safe use CoP

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Various working at height committees

CITB Construction Skills Tutor / NVQ Assessor 19 years+

NEBOSH Tutor

What is a BS CoP and legal status?

What is a British Standard Code of Practice?

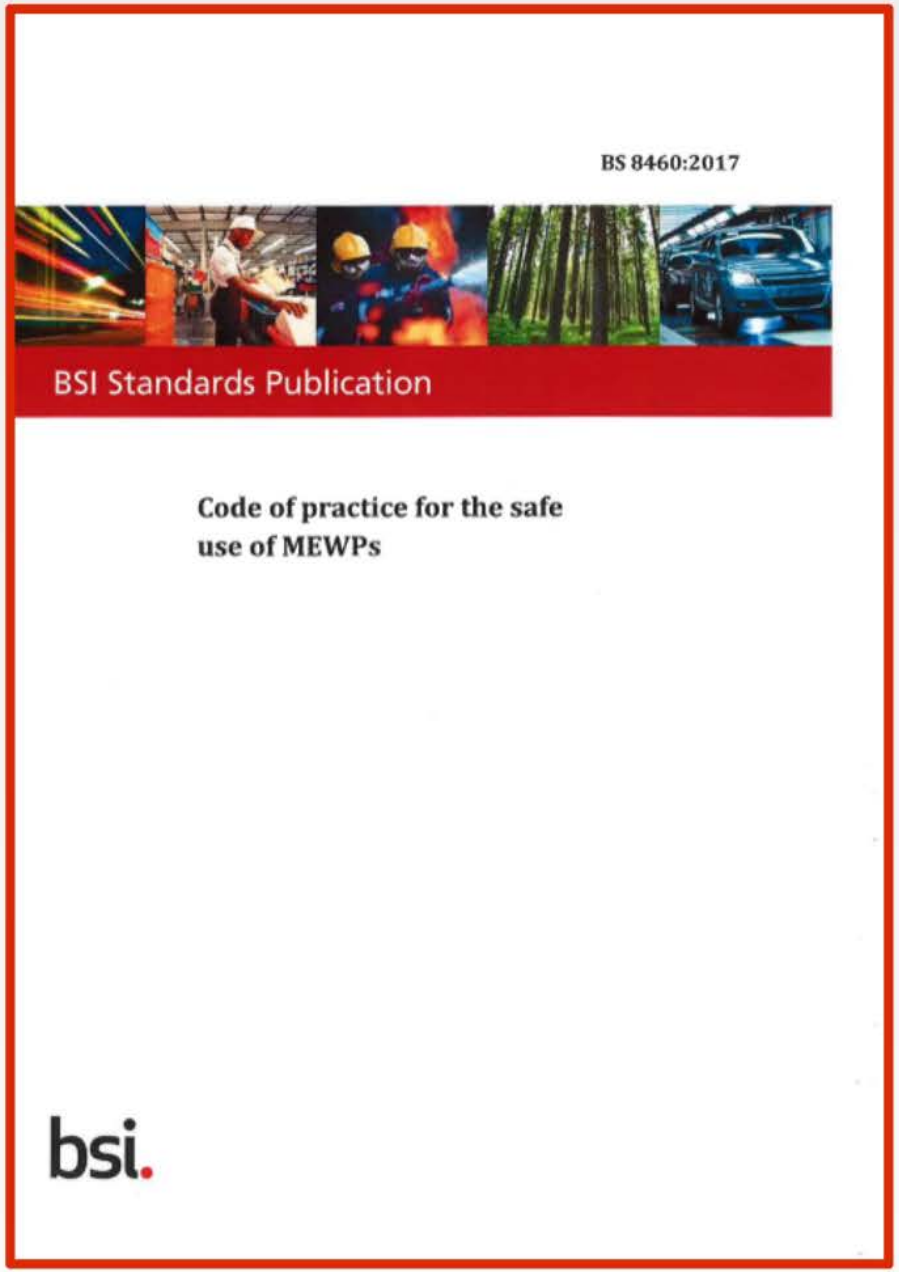
- A code of practice is a set of written rules which explains how people working in a particular profession should behave.

Legal status?

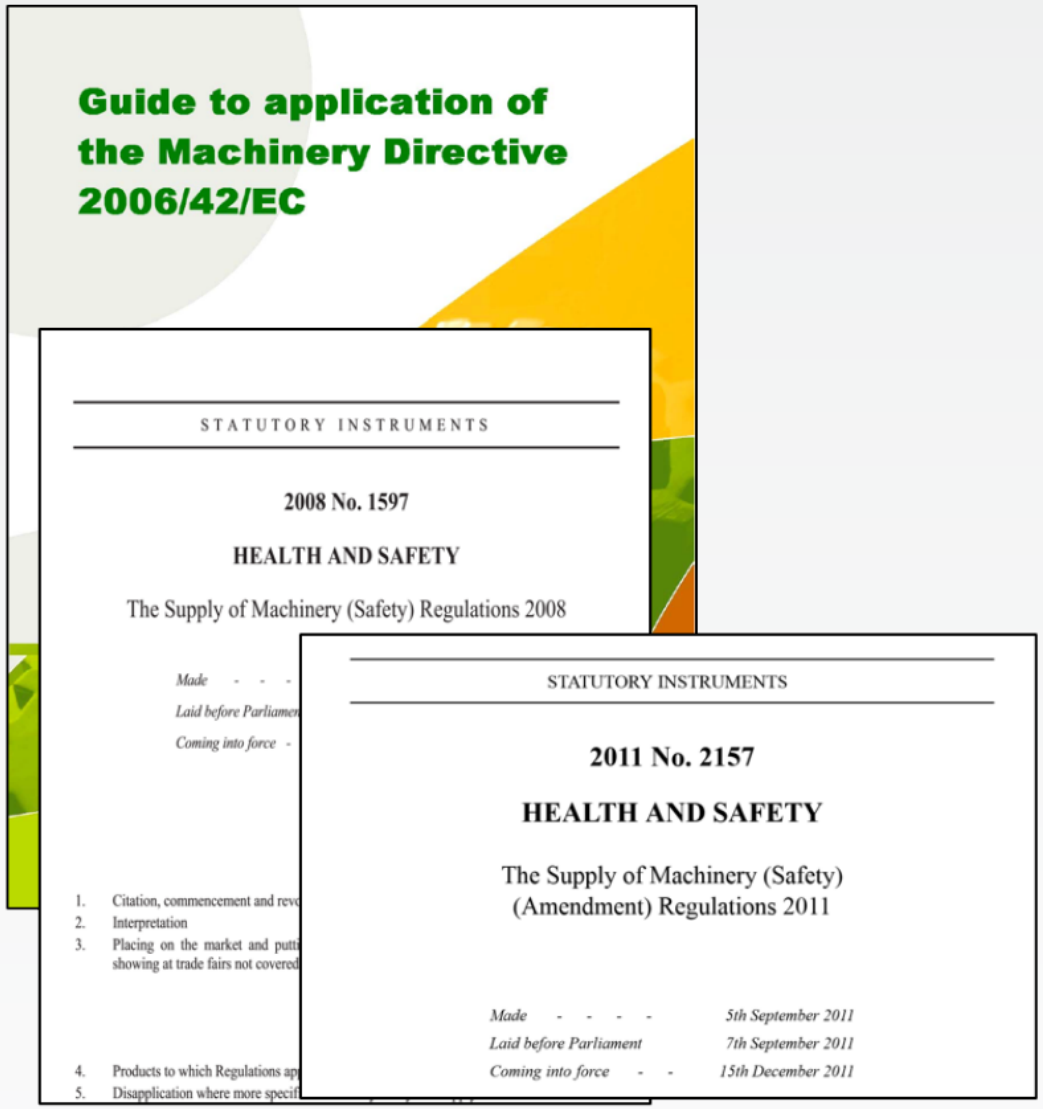
- Not a statutory requirement to follow them, they may be used in criminal or civil proceedings as evidence that a statutory requirement has been contravened.
- However, a failure by a duty holder to observe a provision of an Code of Practice does not render the duty holder automatically liable in criminal or civil proceedings.
- Compliance with a British Standard cannot confer immunity from legal obligations.

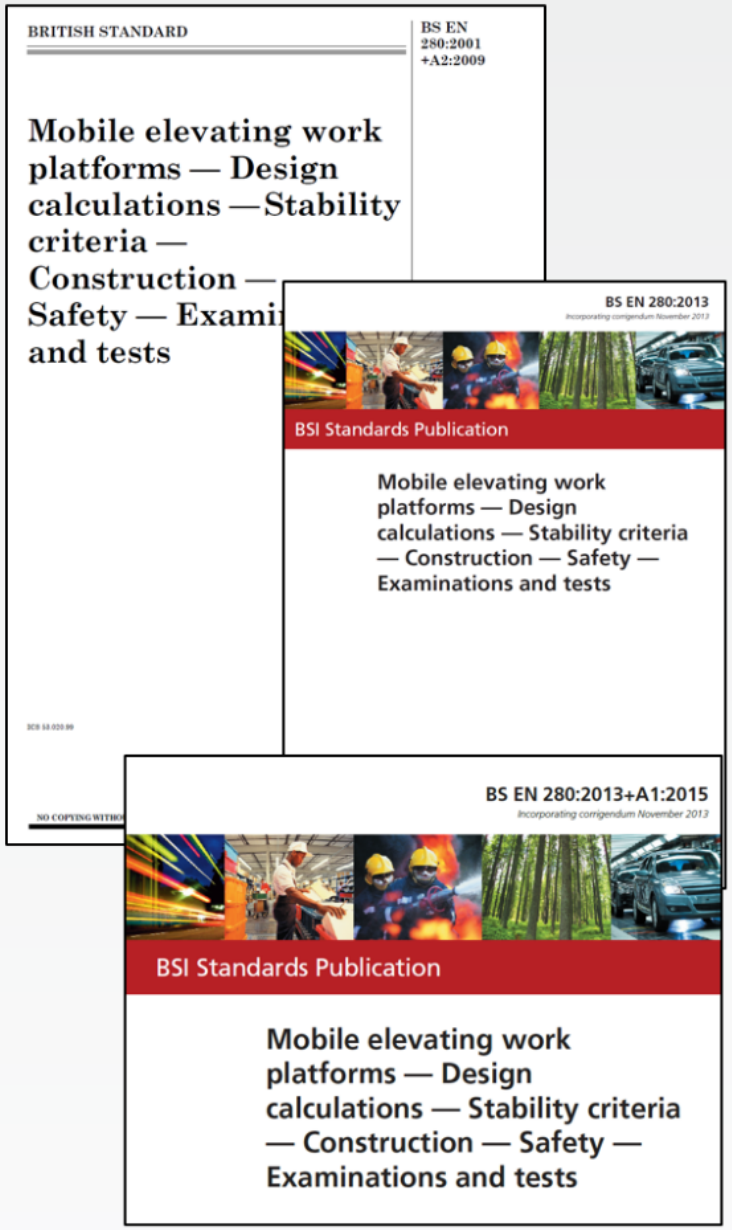
BS8460 – Scope of review

- Thorough Examination
- Selection
- Hiring
- MEWP Positioning
- Maintenance
- Safe use
- Operator selection and training
- Selection and training of other personnel
- Selection of competent persons



Design changes since 2005





Changes to legislation and HSE guidance

Further industry guidance

Strategic Forum Plant Safety Group

MEWP Safety Group

Definitions

New definitions for "secondary guarding", "primary guarding", "user" and "deck-riding";

Secondary guarding

- Device fitted to a MEWP in addition to the primary guarding systems, to further reduce the risk of entrapment and/or provide an alert that an entrapment situation has occurred
- NOTE: Shrouds placed over the controls are not considered as secondary guarding

Primary guarding

- Function enable device which requires activation prior to any lift or drive movement control being activated

User

- Person or organization that has control of the planning, management and use of the MEWP on site and is responsible for ensuring the MEWP is kept in a safe working condition

Deck-riding

- Practice of placing a MEWP on a previously erected structure above the ground prior to structural completion, either by using a static “sled” fixed to the base of the MEWP or by placing the MEWP on a temporary MEWP support frame

Primary Guarding

Primary Guarding

Deck-riding

Hazards

Table 1 *(continued)*

Stage	Activity	Hazard	Cause	Relevant clause(s)
Positioning prior to carrying out work *(continued)*	Other plant and vehicles	Collision, ejection from platform and crushing	Cranes (tower, mobile and EOT)	6.12
			Road vehicles	6.12
			Site vehicles	6.12
	Travelling	Impact with operator and bystander	Travelling the MEWP with the operator not on the platform	11.2.1
		Musculoskeletal injuries	Lifting, carrying, pulling, pushing	–
		Run away	Transitioning from road to rail	12.6
Setting up	Outrigger/stabilizer deployment	Crushing	Feet under outrigger/stabilizer pad	6.11.2
		Impact, trapping and crushing	Extending outrigger beams into adjacent personnel, vehicles or structures	6.12
		Unexpected movement	Hand brake on rear wheels only (chassis moves when rear wheels leave ground)	11.3.4
		Overturning	Incorrect set up	11.4
			Levelling (slope limit) plus max packing height	11.4
			Ground-bearing capacity	6.11
	Attachment of work platform, interchangeable equipment and accessories	Musculo skeletal injuries	Incorrect manual handling	7.2
		Falling and falling object	Not attached securely (lack of competence)	11.6
			Incorrect selection and non CE-marked interchangeable equipment	11.5, 11.6
	Folding and unfolding guardrails	Trapping and crushing	Lack of familiarization	8, 12.1
		Falling	Working at height with insufficient fall protection	6.9, 12.1
During use	Loading of the work platform	Overload, overturning and structural failure	Inadequate planning of the operation	9, 11.4, 11.5
			Exceeding number of persons	11.4, 11.5
			Exceeding rated load	11.4, 11.5

Table 1 *(continued)*

Stage	Activity	Hazard	Cause	Relevant clause(s)
During use *(continued)*	Travelling on site *(continued)*	Impact with bystanders/obstacles *(continued)*	Constricted areas, crossings, pedestrian areas	12.2, 12.3
			Site signage and identified vehicle route ways	12.2, 12.3
			Open yards and loading/unloading areas	12.2, 12.3
		Overturning	Uneven rough ground (potholes, kerbs, etc.)	11.3
			Unprotected edges	11.3
			Housekeeping (debris, objects projecting into or obstructing route ways, etc.)	11.3
		Overturning and ejection of cage occupants	Acceleration during turning and stopping and over uneven ground	12.2
			Magnification of distance and acceleration at the work platform on boom-type MEWPs when travelling over uneven ground (particularly with the boom extended)	12.2
			Sudden movement of the work platform on tracked-type MEWPs when travelling over uneven ground	12.2
			Sudden movement of the work platform if oscillating axles are locked when travelling over uneven ground	12.2
			Being towed	11.2
			Ground failure, including manholes and temporary covers to slab openings	6.11
		Impact, trapping, crushing and structural damage	Towing another machine	11.2
		Lack of assistance in event of injury	Lone working	6.18
	Airports (additional issues)	Impact, trapping and crushing	Collision with aircraft and other traffic	6.13
		Overturning	Aircraft exhaust	6.2.4, 6.13
		Air traffic control confusion	Radar interference from moving MEWP airside	6.13
		Auditory damage	High noise levels	6.13
	Railways (additional issues)	Impact, trapping and crushing	Collision with rail traffic	12.6
		Electrocution	Proximity to overhead line equipment (OLE) and "third rail" systems	6.3, 12.6
	MEWP security	Unauthorised use	Failure to secure and isolate the MEWP and control access	6.21

Table 1 *(continued)*

Stage	Activity	Hazard	Cause	Relevant clause(s)
Transport and delivery *(continued)*	Transport on the highway *(continued)*	Environment	Wind, rain, ice, snow and poor visibility, lighting levels, noise levels	6.2, 6.11.7
		Electrocution	Overhead power lines	6.3
	Travel on site	Impact with bystanders	Limited operator visibility (particularly reversing)	10, 11
			Constricted areas, crossings, pedestrian areas	10, 11
			Site signage and identified vehicle route ways	10, 11
			Open yards and loading/unloading areas	10, 11
		Impact with operator and bystander	Travelling the MEWP with the operator not on the platform	12.3
		Overturning	General and localized features such as poor ground, excavations, basements and cellars	6.11
			Driving on cross gradients	12.2
		Electrocution and fire	Services (above and below ground)	6.3, 6.11.6
		Collisions	Travel orientation (unexpected response to controls)	11.3.4, 12.2
			Overhead hazards	11.3, 6.12
			Inability to hear warnings due to high noise levels	12.2
			Lack of segregation from vehicles, traffic routes and management arrangements	6.12
		Ejection from work platform	Unexpected movement, e.g. ground failure	12.2
			Striking adjacent object/structure	6.12
			Being struck by an external object	-
		Hazardous substances	Fuel and exhaust fumes in confined areas, liquids	6.17
		Fire and explosion	Unprotected combustion engines and electric motors in hazardous areas	6.17
		Trapping and crushing	Bystander coming too close to the MEWP	11.2.1, 6.12
			Travelling too close to overhead obstructions	6.3, 11.2
			Lack of awareness of surroundings	6.20
		Lack of assistance in event of injury	Lone working	6.18

Table 1 *(continued)*

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			Exceeding number of persons	11.4, 11.5
			Exceeding rated load	11.4, 11.5

Loading and unloading of MEWPs

User is responsible for providing

- A designated well-lit area for loading activity to take place
- of sufficient size;
- on firm and level ground;
- segregated from other work activities;
- free of traffic, pedestrians and members of the public where possible;
- clear of overhead and underground hazards

On the public highway

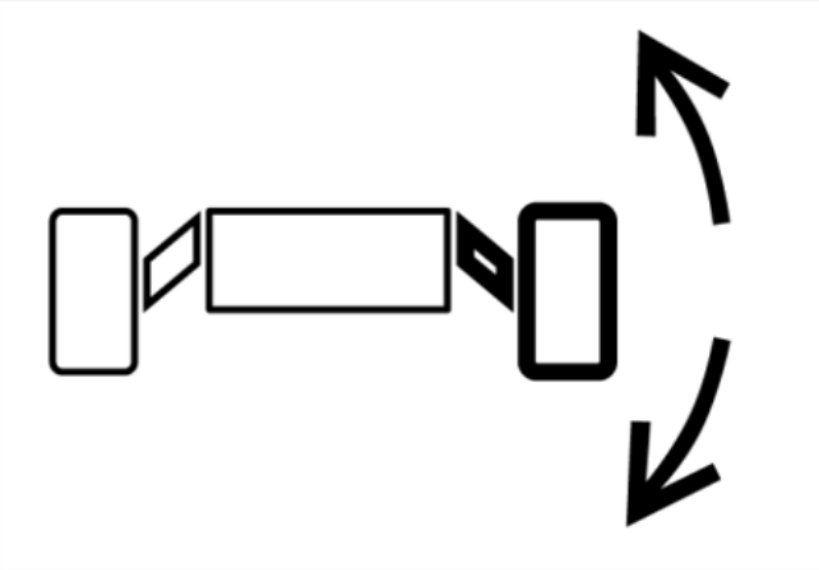
Avoided where reasonably practicable

- Schedule deliveries for a quiet time / avoid peak traffic times
- Identify where the delivery vehicle will park
- Consider run off areas for manoeuvring and turning MEWP
- Direction of vehicle for increased visibility
- Competent and authorized supervisor/ signaller
- Vehicle and pedestrian management

3.23 oscillating axle – definition has been enhanced

3.23.1 active oscillating axle

- Axle on the chassis of a self-propelled MEWP which moves in a controlled manner to ensure that, within the limit of oscillation, all wheels remain in contact with the ground



3.23.2 passive oscillating axle

- Axle on the chassis of a self-propelled MEWP which moves freely during travel with the MEWP's elevating structure in a limited and defined configuration to ensure that, within the limits of oscillation, all wheels remain in contact with the ground

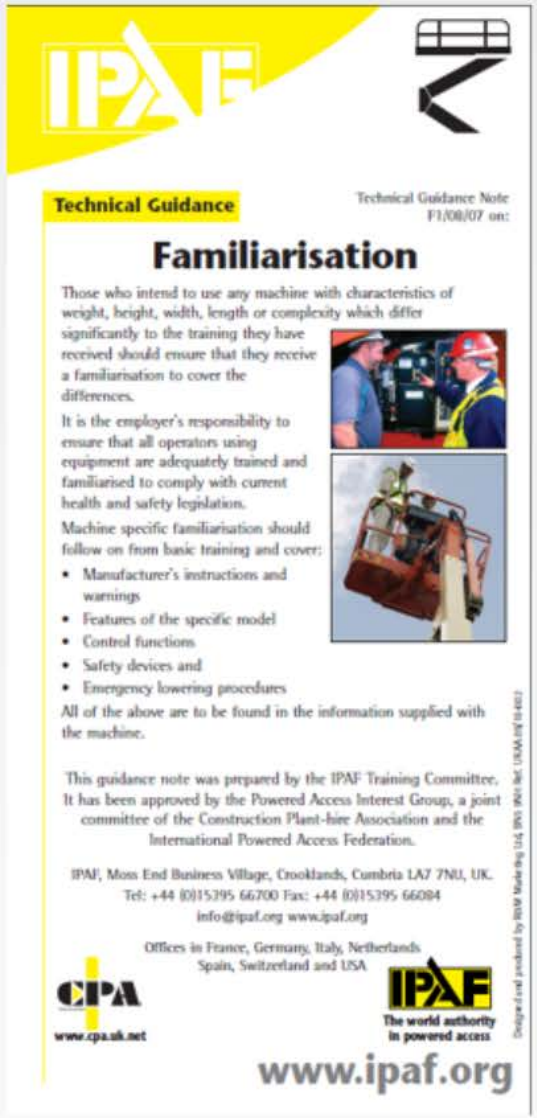
Self-familiarisation

Self-familiarisation

Authorised by User

Hazards of MEWP considered e.g.

- Complexity
- Capacity
- Previous experience
- Operator is confident and capable
- Given adequate time
- Safe location
- All relevant information available -Manual
- Familiarisation recorded



IPAF

Technical Guidance

Technical Guidance Note F1/08/07 on:

Familiarisation

Those who intend to use any machine with characteristics of weight, height, width, length or complexity which differ significantly to the training they have received should ensure that they receive a familiarisation to cover the differences.

It is the employer's responsibility to ensure that all operators using equipment are adequately trained and familiarised to comply with current health and safety legislation.

Machine specific familiarisation should follow on from basic training and cover:

- Manufacturer's instructions and warnings
- Features of the specific model
- Control functions
- Safety devices and
- Emergency lowering procedures

All of the above are to be found in the information supplied with the machine.

This guidance note was prepared by the IPAF Training Committee. It has been approved by the Powered Access Interest Group, a joint committee of the Construction Plant-hire Association and the International Powered Access Federation.

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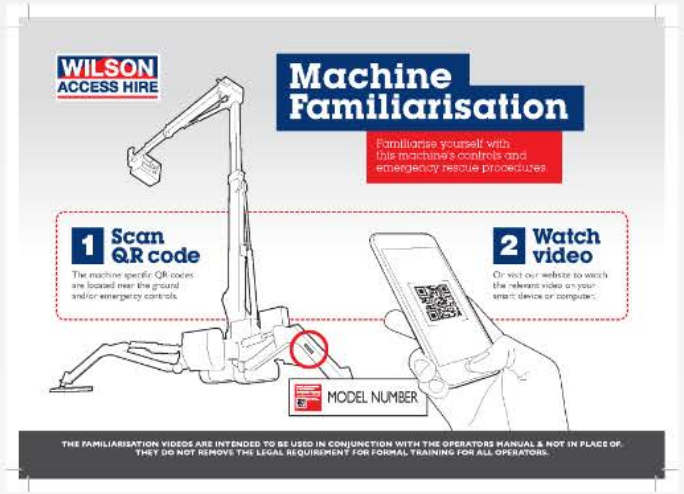
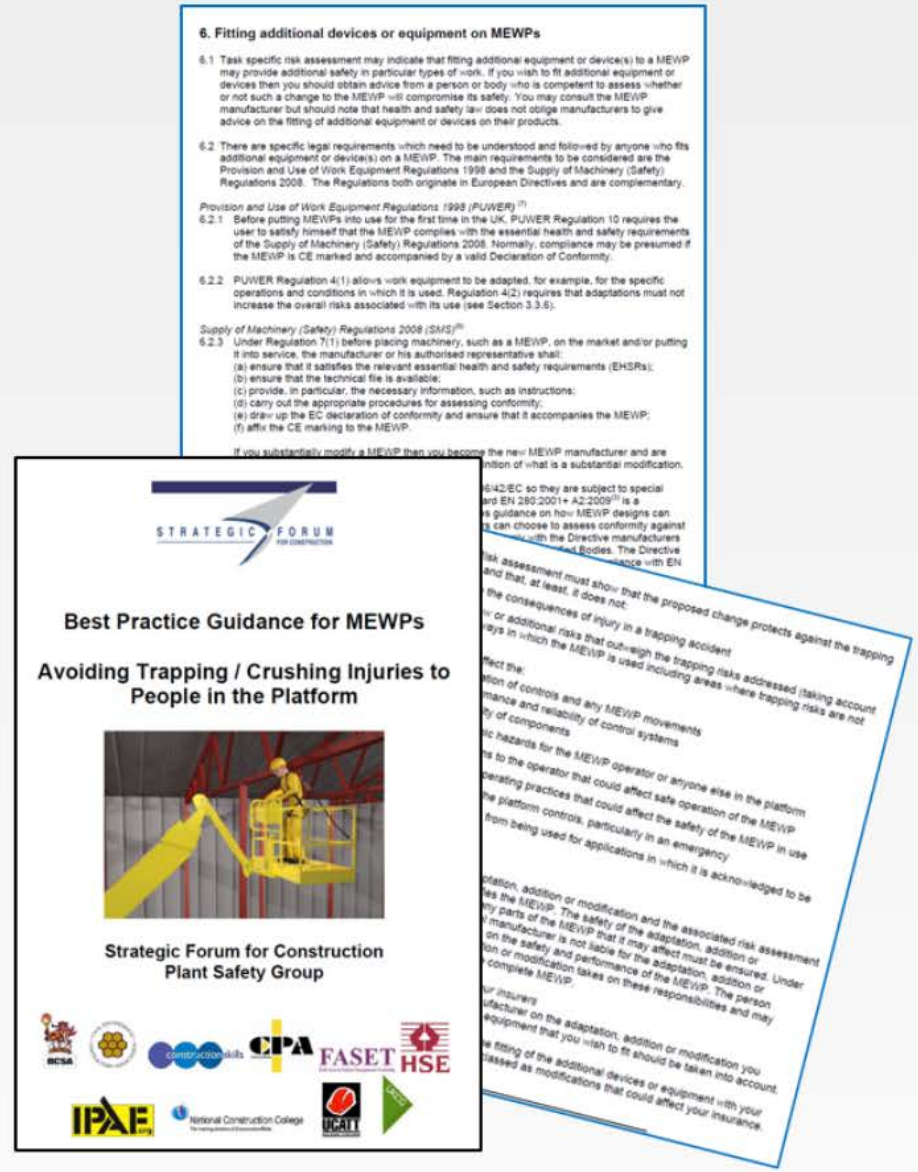


Modifications and or fitting additional devices or equipment

Annex D - Machine modifications and CE marking



6. Fitting additional devices or equipment on MEWPs

6.1 Task specific risk assessment may indicate that fitting additional equipment or device(s) to a MEWP may provide additional safety in particular types of work. If you wish to fit additional equipment or devices then you should obtain advice from a person or body who is competent to assess whether or not such a change to the MEWP will compromise its safety. You may consult the MEWP manufacturer but should note that health and safety law does not oblige manufacturers to give advice on the fitting of additional equipment or devices on their products.

6.2 There are specific legal requirements which need to be understood and followed by anyone who fits additional equipment or device(s) on a MEWP. The main requirements to be considered are the Provision and Use of Work Equipment Regulations 1998 and the Supply of Machinery (Safety) Regulations 2008. The Regulations both originate in European Directives and are complementary.

Provision and Use of Work Equipment Regulations 1998 (PUWER) [7]

6.2.1 Before putting MEWPs into use for the first time in the UK, PUWER Regulation 10 requires the user to satisfy himself that the MEWP complies with the essential health and safety requirements of the Supply of Machinery (Safety) Regulations 2008. Normally, compliance may be presumed if the MEWP is CE marked and accompanied by a valid Declaration of Conformity.

6.2.2 PUWER Regulation 4(1) allows work equipment to be adapted, for example, for the specific operations and conditions in which it is used. Regulation 4(2) requires that adaptations must not increase the overall risks associated with its use (see Section 3.3.6).

Supply of Machinery (Safety) Regulations 2008 (SMS)[8]

6.2.3 Under Regulation 7(1) before placing machinery, such as a MEWP, on the market and/or putting it into service, the manufacturer or his authorised representative shall:
(a) ensure that it satisfies the relevant essential health and safety requirements (EHSRs);
(b) ensure that the technical file is available;
(c) provide, in particular, the necessary information, such as instructions;
(d) carry out the appropriate procedures for assessing conformity;
(e) draw up the EC declaration of conformity and ensure that it accompanies the MEWP;
(f) affix the CE marking to the MEWP.

If you substantially modify a MEWP then you become the new MEWP manufacturer and are

STRATEGIC FORUM FOR CONSTRUCTION

Best Practice Guidance for MEWPs

Avoiding Trapping / Crushing Injuries to People in the Platform

Strategic Forum for Construction Plant Safety Group

Trapping or crushing of persons in work platform

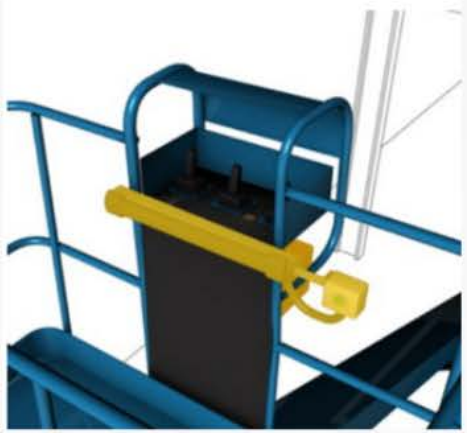
Secondary guarding

Preventative measures:

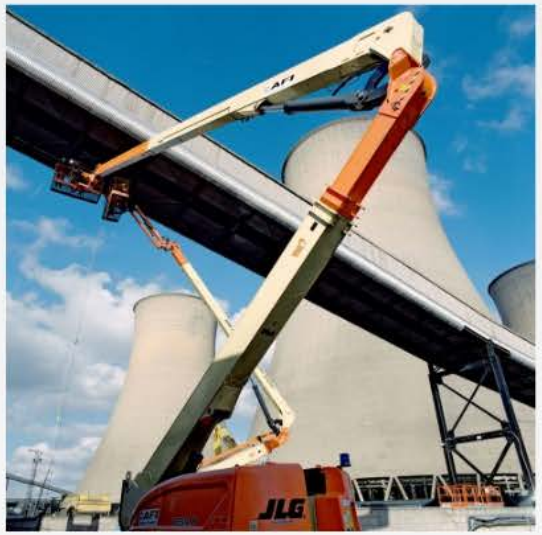
- Correct planning and preparation
- Selection of an appropriate MEWP
- Trained operator and
- Safe use

Operator and nominated rescue personnel familiarisation:

- Functionality
- How it is triggered
- Operated and reset
- Included in pre-use checks



Rescue from height



Ground person or rescuer

- The ground person or rescuer should be able to operate the ground controls of specified MEWPs to enable the recovery of persons in the work platform in the event of a malfunction or emergency.

Rescue from height

Annex G (informative)
Example of a rescue plan hierarchy

Table G.1 — *Example of a rescue plan hierarchy*

If the MEWP stops unexpectedly

- Do not panic.
- Check that the machine has not been inadvertently switched off.
- Check for warning lights and alarms, consult the operator's manual if required, and take appropriate action.
- Attempt to restart the machine if possible.
- If the machine cannot be restarted, use the platform auxiliary controls to lower the machine to the stowed position.
- Contact your supervisor to report the problem.

If the platform auxiliary controls are not effective

- Notify the appointed ground rescue person and activate the pre-planned rescue plan.
- Assess and agree the sequence for lowering the platform from the ground controls.
- Where possible or when applicable, retract extending decks and booms to reduce the lowering area required.
- The operator in the platform should verbally relay the progress of the descent to the ground rescue person.
- The nominated ground rescue person should first attempt to use the primary ground controls if their rescue plan permits this.
- If the primary ground controls are inoperable, the auxiliary controls/power source should be used to lower the machine to the stowed position.

If the operator is alone or incapacitated

- The ground rescue person should call the emergency response team as specified in the rescue plan.
- The ground rescue person should assess the situations, conditions and the platform location for surrounding hazards. The use of another MEWP or alternative might be necessary, if available.
- If it is not detrimental to the occupant, fully lower the machine to the stowed position.

If there is total failure/loss of ground controls

- If the ground controls/power source are unresponsive, call the machine owner/rental company for advice and help.
- Request an estimated time of arrival for the competent person.
- Assess the position and condition of the operator and other platform occupants; it might be safer to leave them where they are until assistance arrives.
- If assistance is not available in an acceptable timescale, consider a "basket to basket" rescue.

NOTE For further guidance on avoiding trapping/crushing injuries, see the Strategic Forum Plant Safety Group Best Practice Guidance for MEWPS – Avoiding Trapping/Crushing Injuries to People in the Platform [29].

1 - Upper Primary controls

2 - Upper Auxiliary controls

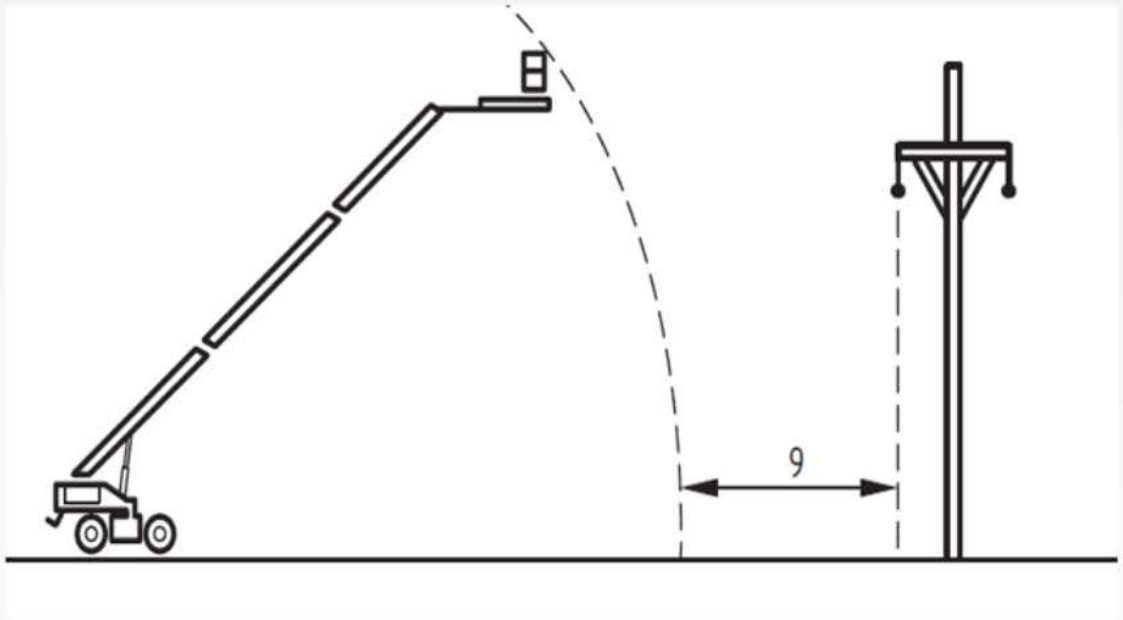
3 - Ground Primary controls

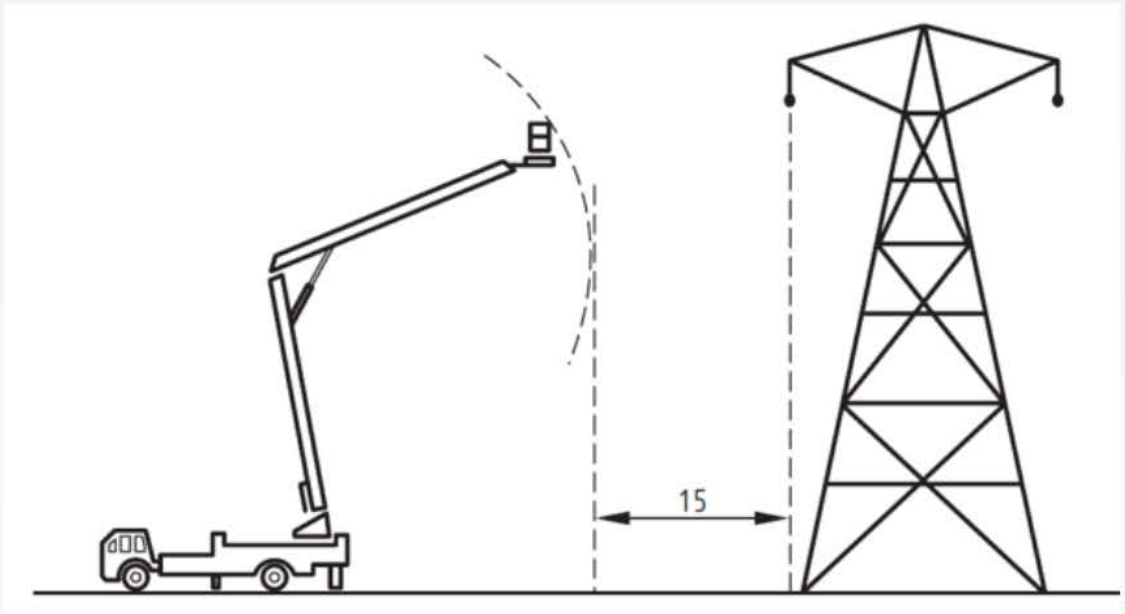
4 - Ground Auxiliary controls

5 – Mid air rescue – (Annex B)

Working safely near overhead electricity lines

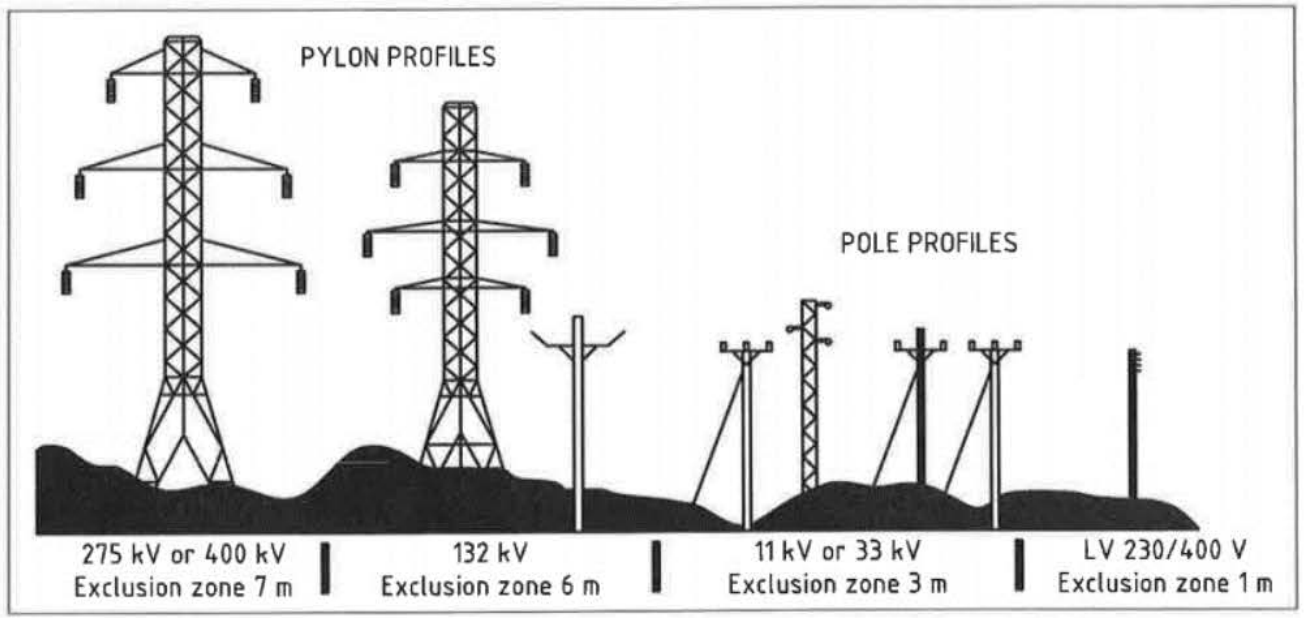
Minimum safe distance of 9m and 15m has now been replaced with...

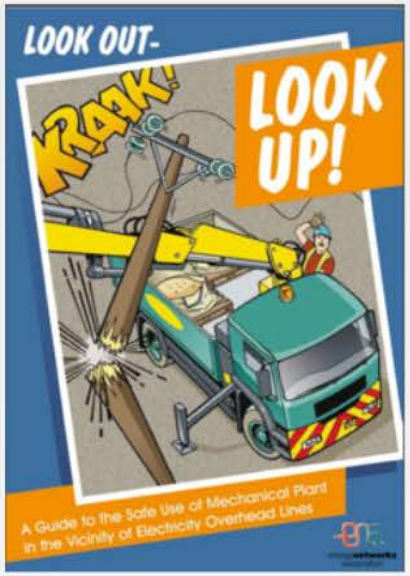




General exclusion zone

Figure 1 — *Absolute minimum exclusion zones*

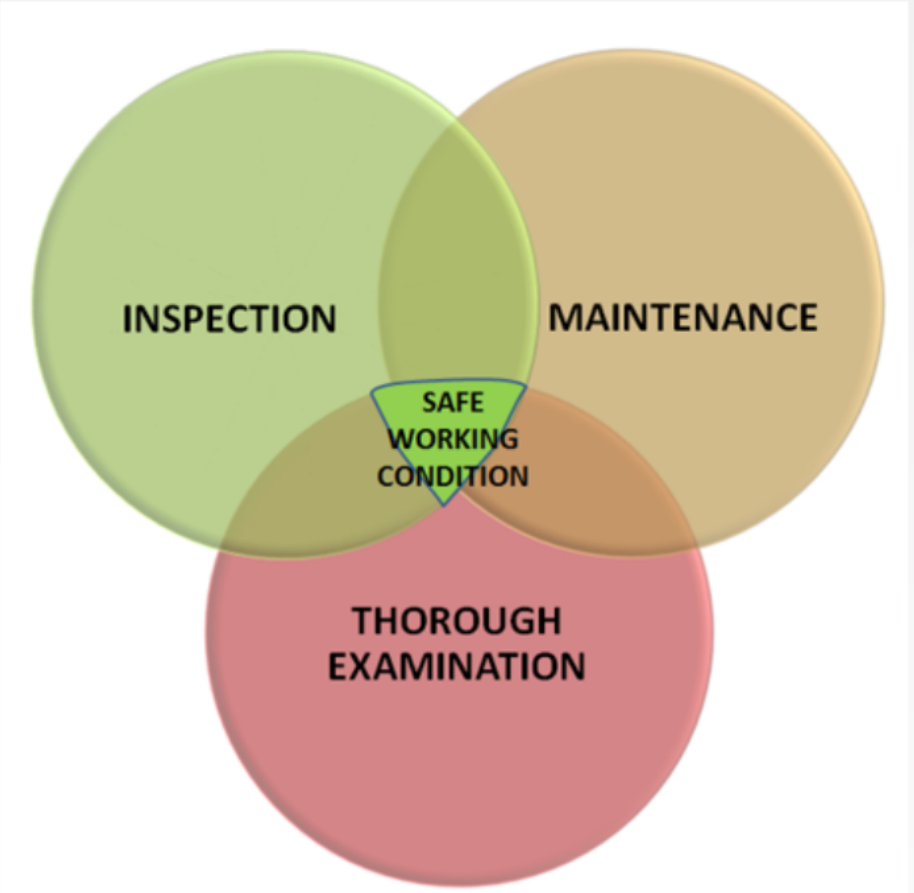




Inspection, Maintenance and Thorough Examination

Maintenance, checks and inspections

- Pre-delivery inspections
- Before accepting delivery of a hired MEWP, the user should ensure that the owner has carried out a satisfactory pre-delivery inspection.
- Pre-use checks
- Refuelling of power units and battery charging
- Intermediate inspections
- Maintenance
- Thorough examination, including testing
- Personnel carrying out thorough examinations



Training and competence

Training should be provided for the following tasks associated with the use of MEWPs

- Planning
- Management and supervision
- Operation, including rescue
- Demonstration
- Maintenance
- Testing and examination.
- Site assessments

Table 2 – Core elements and training needs for the use of MEWPs

Job Title	Core elements	Training needs
Generic	Understand relevant health and safety regulations Understand accident prevention and control Understand the potential limitations and risks for working at height, and implement and maintain a system for working safely at height Understand the need for and correct use and maintenance of personal protective equipment Recognize unsafe practices	Attend appropriate safety awareness course Attend appropriate personal protective equipment training course
Supervisor	Understand the principles of MEWP operation Understand what a MEWP can and cannot be used for Understand the hazards associated with MEWP operation Knowledge of pre-use checks Knowledge of the action to take in the event of an emergency or mechanical breakdown Understand what can happen if the MEWP is poorly maintained Carry out an effective observation and know what to look for Communicate effectively with operators and line managers; Recognize bad practice and unsafe behaviour Develop good working relationships Raise health and safety standards Display consistency and be persistent Raise and address issues confidently and not be afraid of conflict	
Operator	Drive the MEWP safely and manoeuvre the machine as required, to correctly position and carry out the required tasks in a correct and proper manner, inside and outside a building Identify and avoid foreseeable hazards Carry out pre-use checks	Attend recognized operator training course Final assessment of competence in the work situation Receive familiarization (see Clause **8**) on all models of MEWP they are required to operate (operating more complex machines requires further training)
Service engineer	Identify equipment Understand and apply manufacturer's service/maintenance information	Attend relevant MEWP manufacturer's service training

BS8460:2017 also covers the following subjects:

- Non – ionizing radiation
- Guidance on competent persons
  - MEWP rescue person
  - Supervisor
- Pedestrian control of MEWPs
- MEWPs on other structures
- Access control
- Telematics

Summary

- Scope of the document
- Changes : design, legislation, HSE and industry guidance
- Definitions
- Loading unloading responsibilities
- Self familiarisation
- Modifications and fitting additional devices and equipment
- Secondary guarding
- Rescue
- Overhead power lines
- IMTE
- Training and competence






Thank you for listening

Any questions?

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We'd love to hear what you thought of the webinar, please complete the short survey and send us your feedback

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