





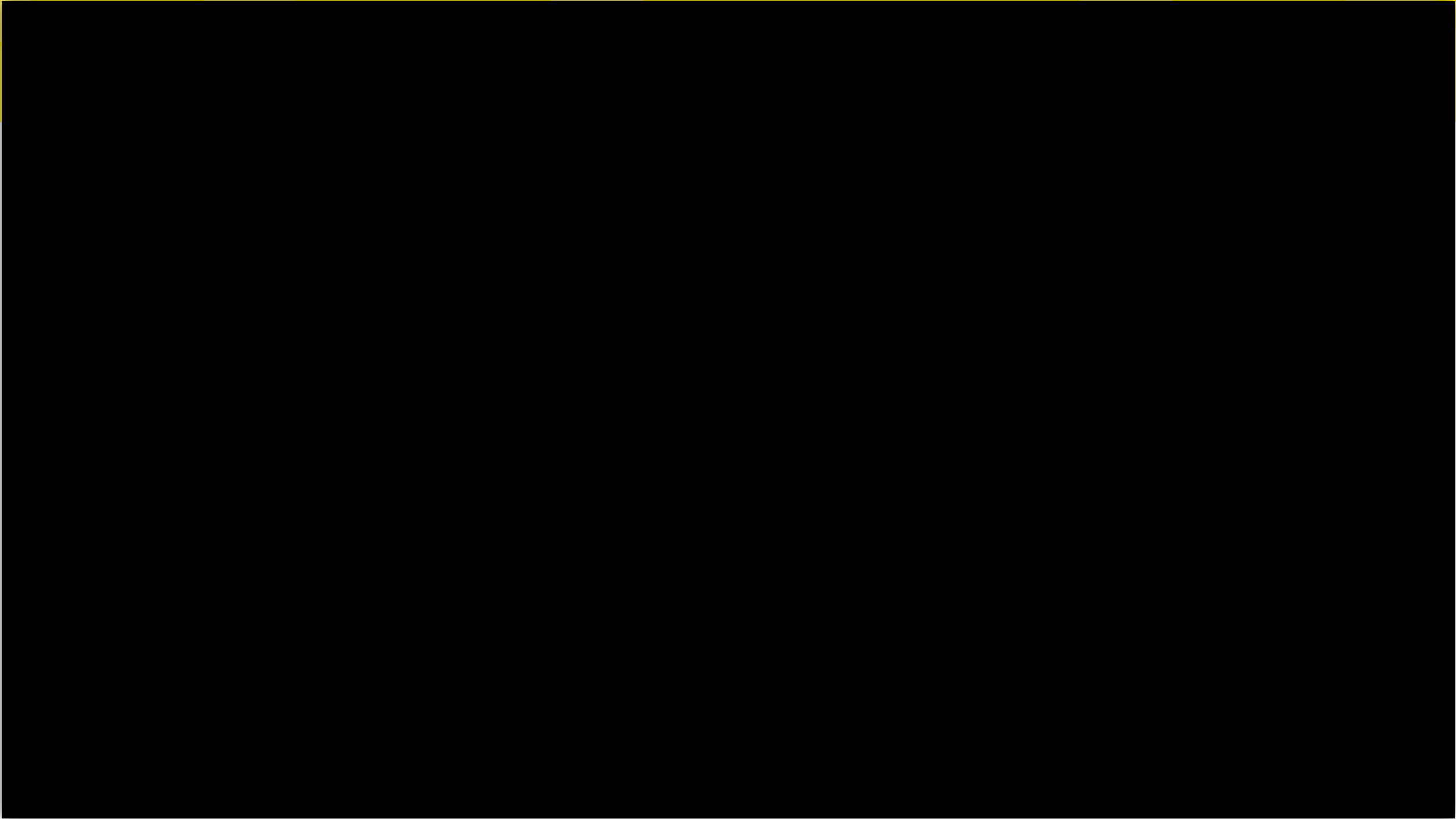
Hubarbeitsbühnen für Führungskräfte - oder Sicherheit fängt am Boden an..

Reinhard Willenbrock



Alles so einfach..





und weiter...

Unfälle



und...

Störungen



und...

unsichere Arbeits - Methoden



und...auf der Baustelle



- ➔ Richtige Planung
- ➔ Kompetente Betreuung



Doch was müssen Sie wissen ?



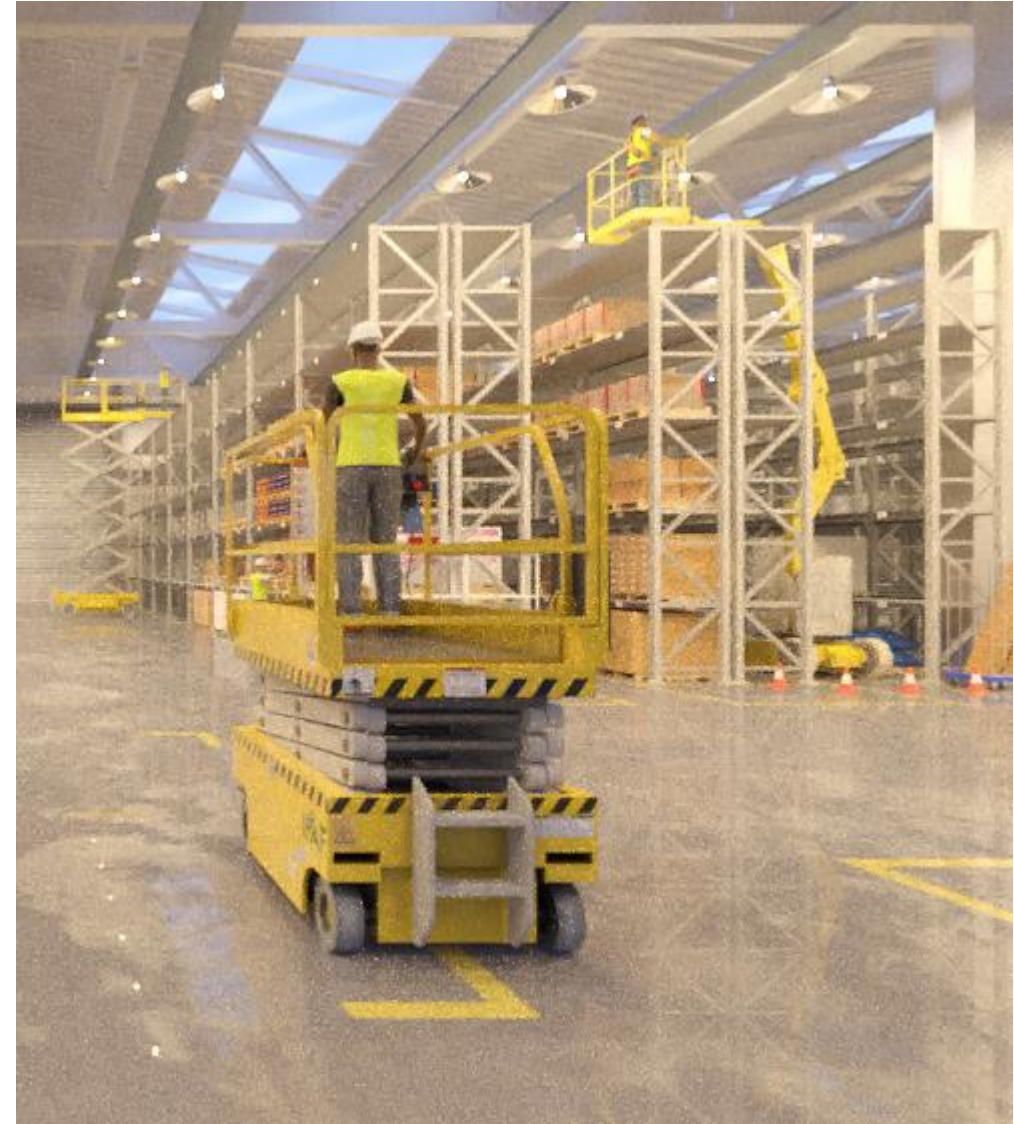
Wie können wir helfen ?



www.ipaf.org

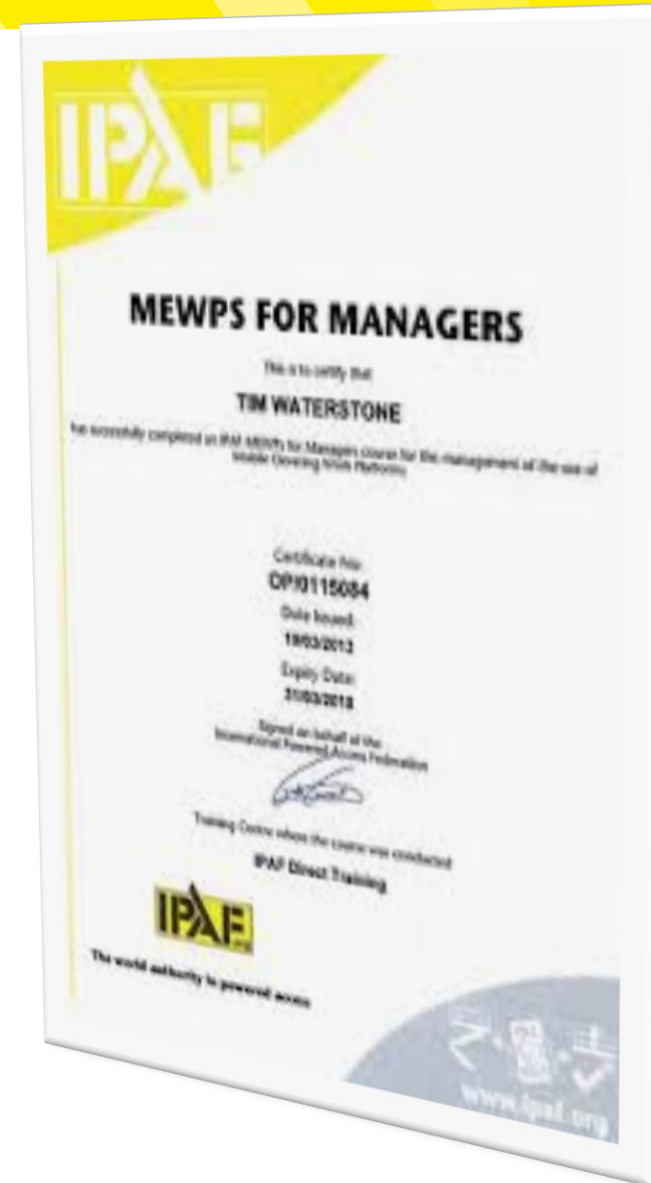
Umfassendes Training für:

- Manager
- Vorgesetzte
- Baustellenleiter
- Gesundheits- und Sicherheitsverantwortliche



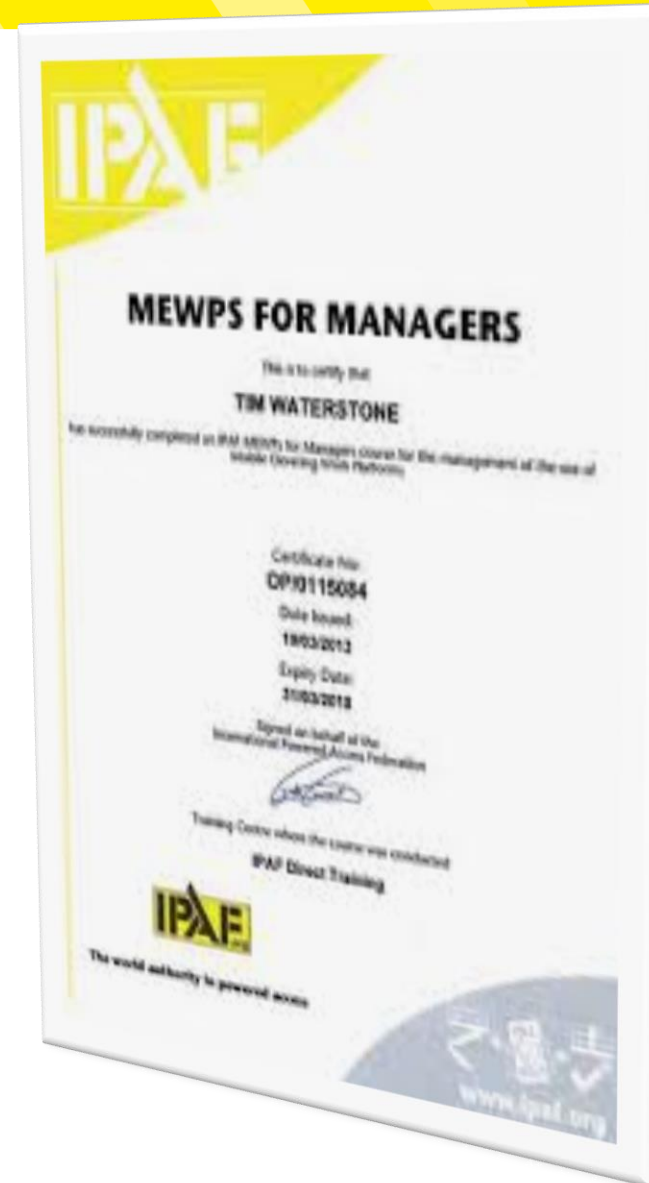
Weltweit führendes Training

- Rechtliche Anforderungen
- Standards und Leitlinien
- MEWP-Auswahl
- Mietbedingungen
- Ausbildung
- Einarbeitung
- Notabsenkung
- Persönliche Schutzausrüstung
- Rettungsplanung
- Gefahrentdeckung und -kontrolle



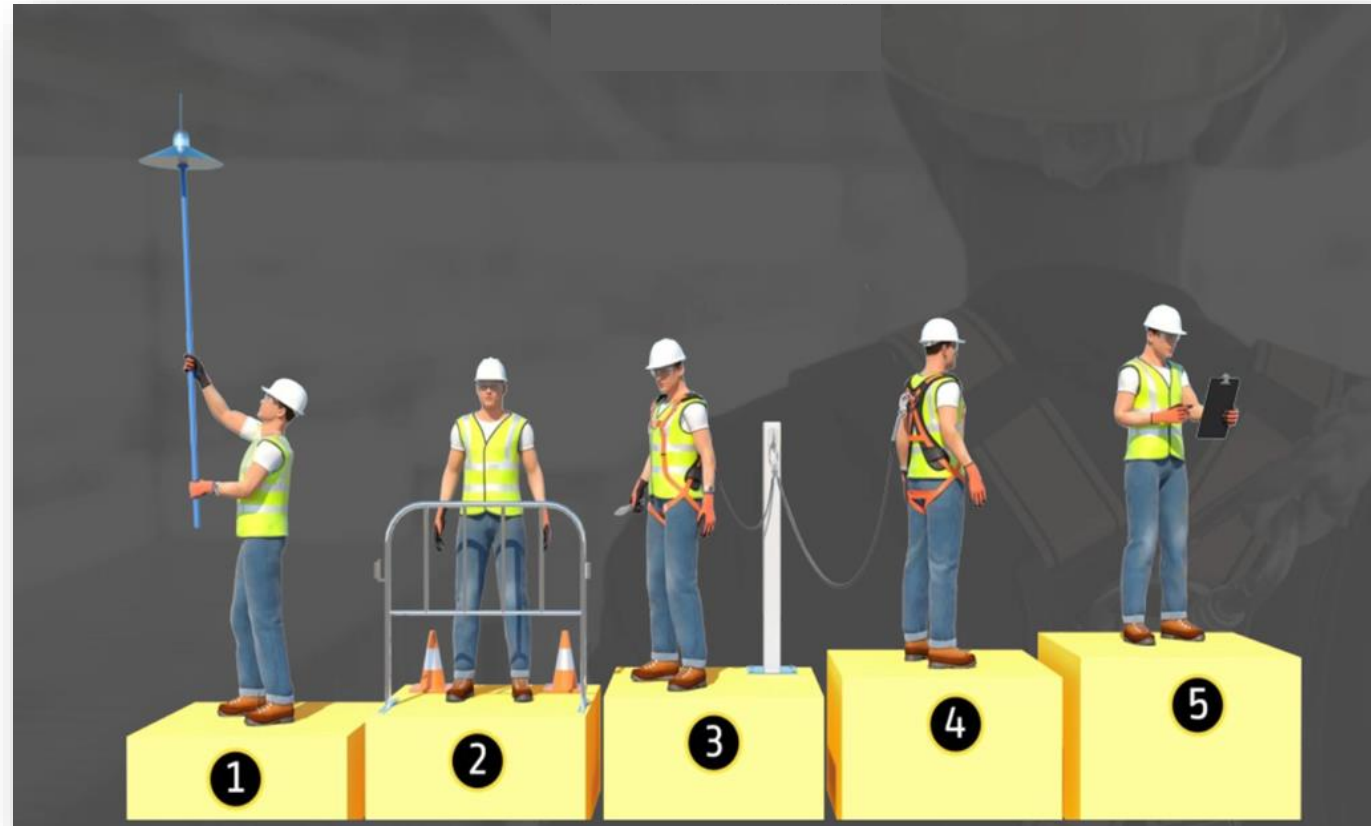
Weltweit führendes Training

- Mitarbeiterauswahl
- PSAgA
- MEWP-Sicherheit
- Laden und Entladen
- Sichere Arbeitssysteme
- Schlechte Praxis erkennen
- Unfallstatistik
- Schlüsselfaktoren zur Vermeidung von Stürzen
- Häufige Planungsfehler
- Untersuchung



Weltweit führendes Training

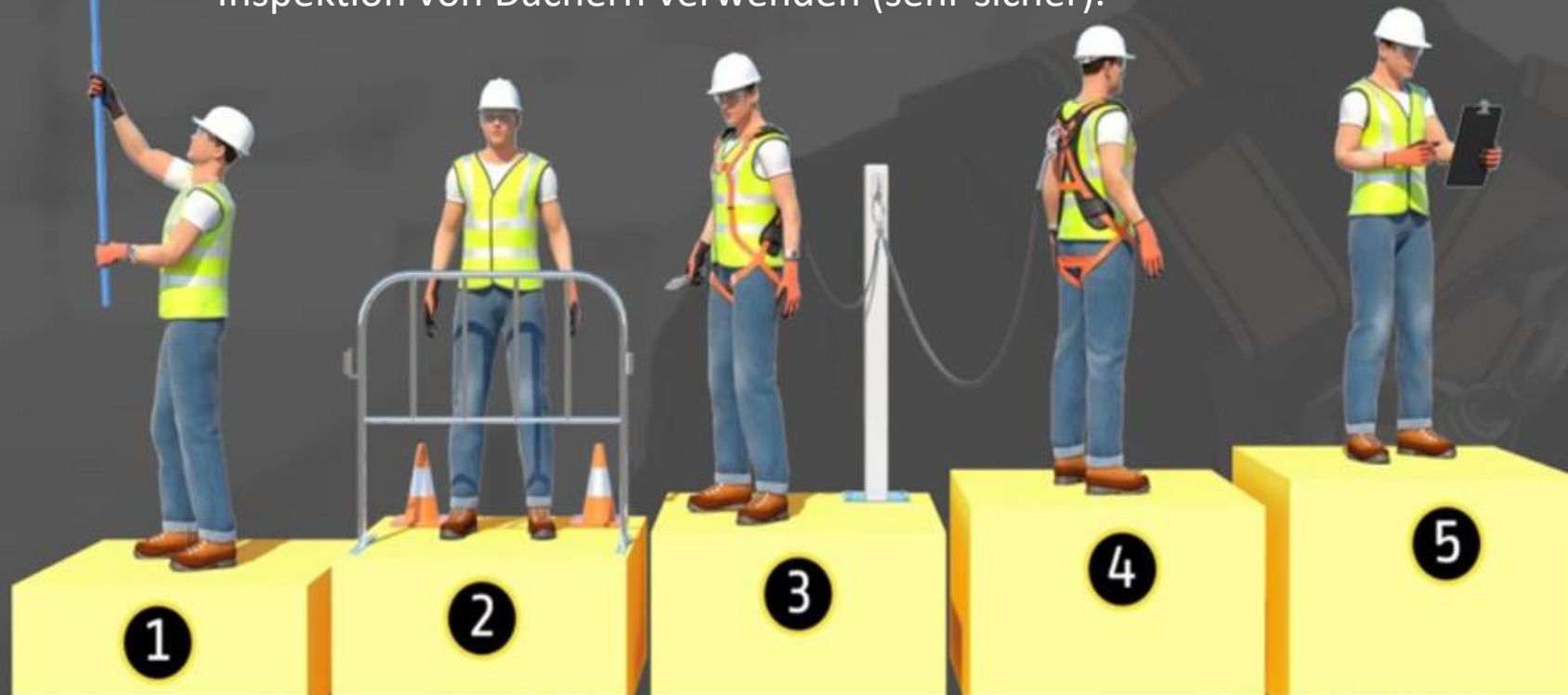
- Eine größere Informationstiefe
- Abwechslungsreiche Übungen zum Lernen im Kontext



Hierarchie für sicheres Arbeiten in der Höhe

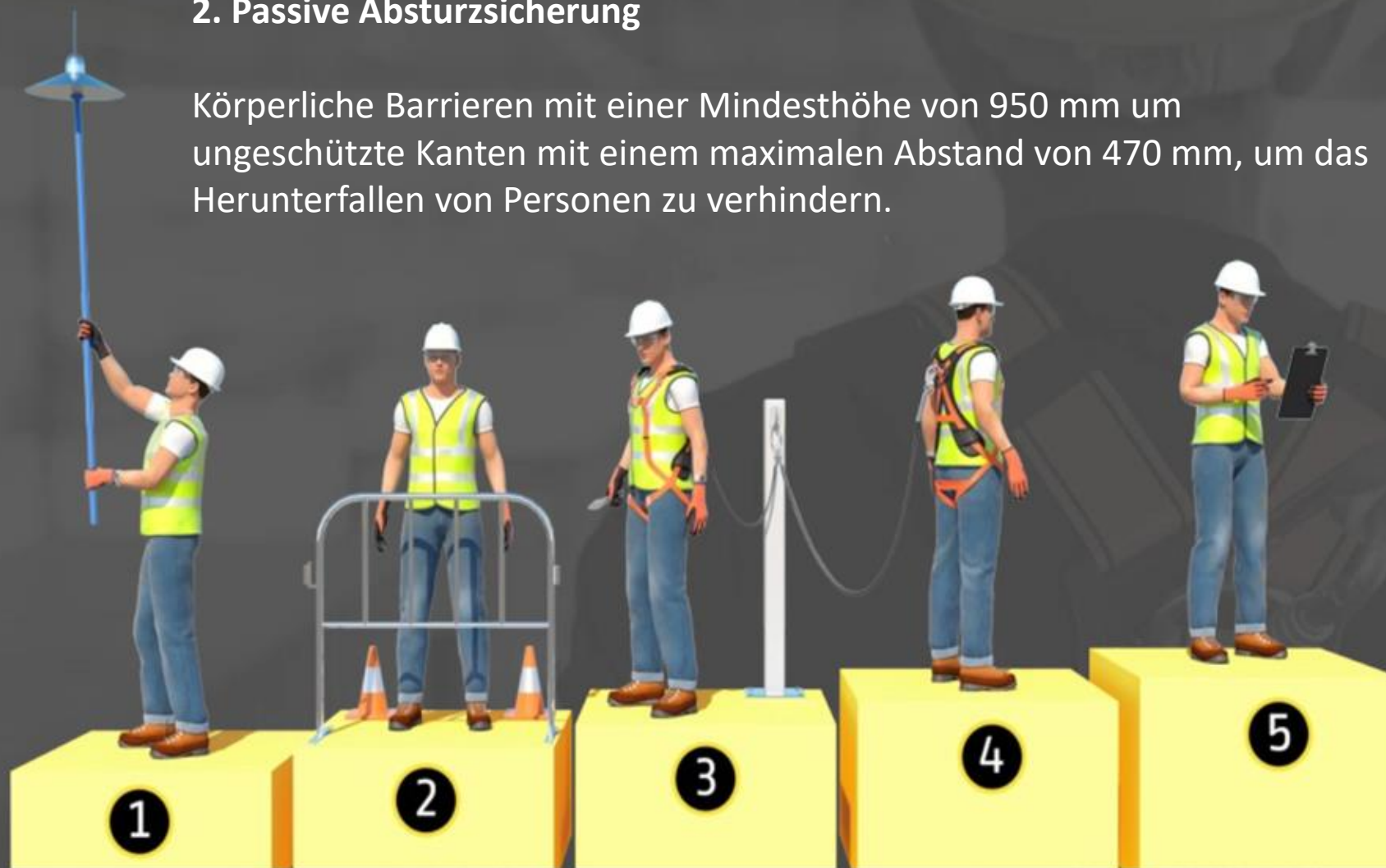
1. Beseitigung der Gefahren

Idealerweise arbeiten Sie vom Boden aus mit ausfahrbaren Werkzeugen, oder indem Sie z.B. die Beleuchtung auf den Boden absenken, um eine Glühlampe auszutauschen, oder sogar Drohnen zur Inspektion von Dächern verwenden (sehr sicher).



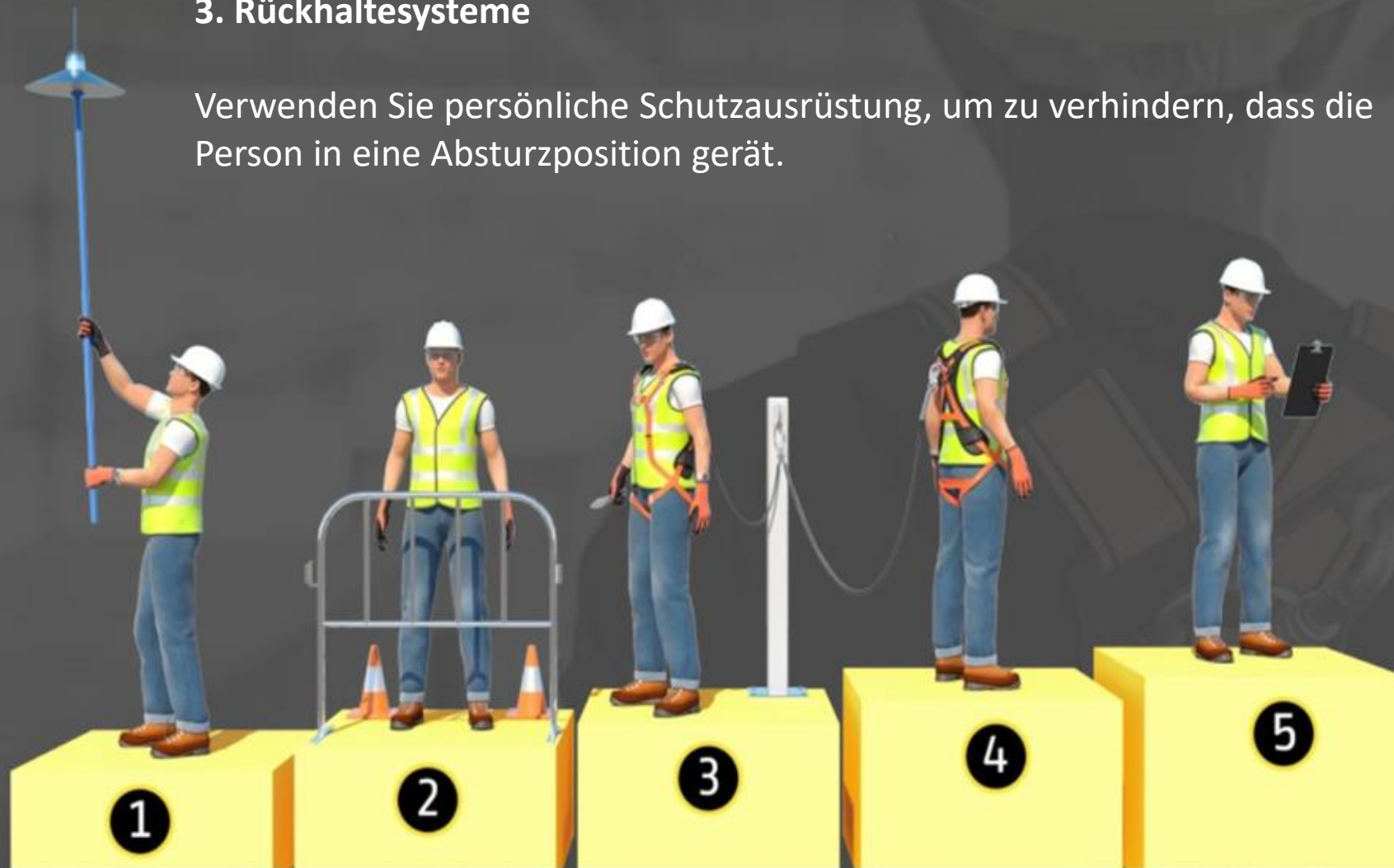
2. Passive Absturzsicherung

Körperliche Barrieren mit einer Mindesthöhe von 950 mm um ungeschützte Kanten mit einem maximalen Abstand von 470 mm, um das Herunterfallen von Personen zu verhindern.



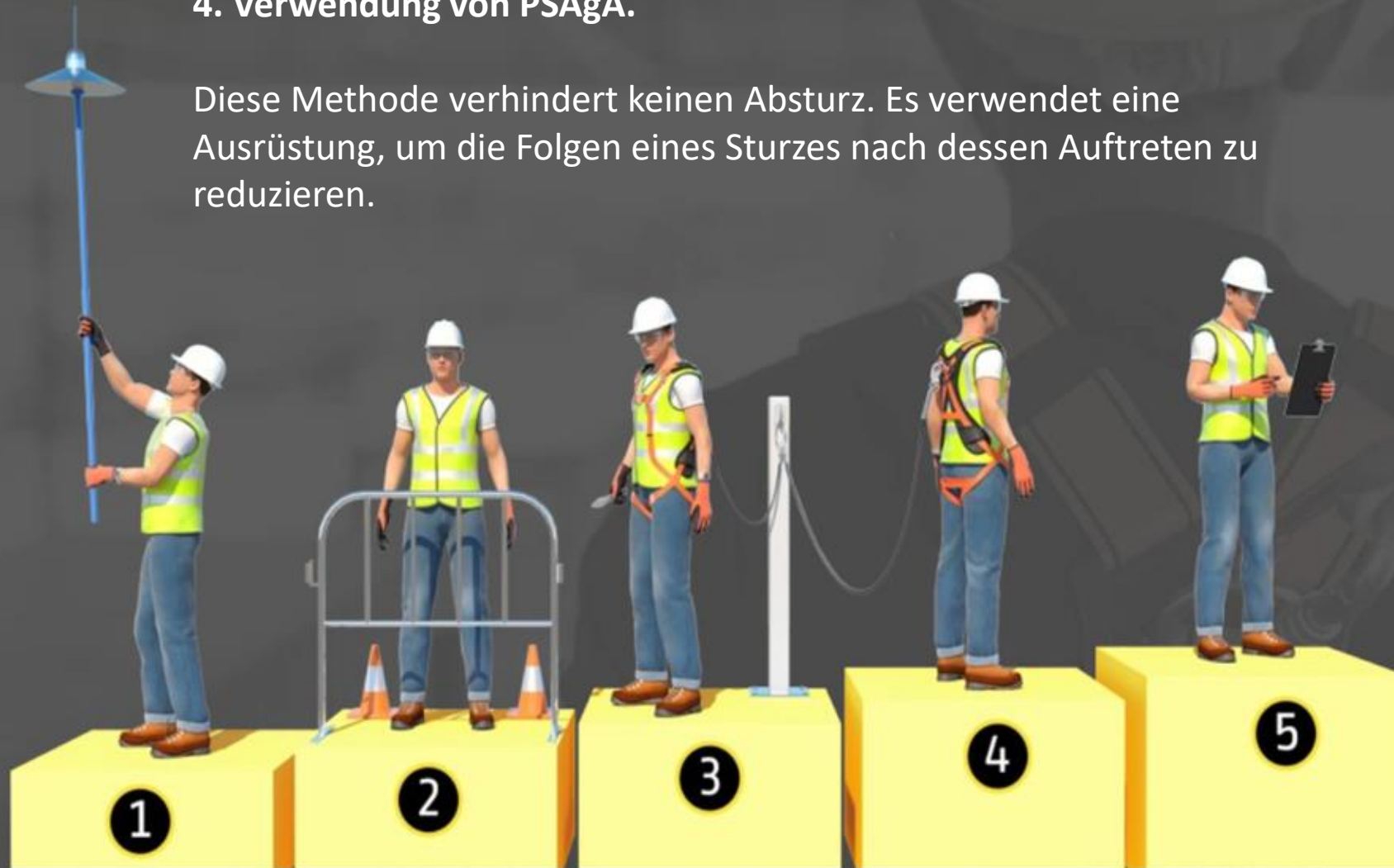
3. Rückhaltesysteme

Verwenden Sie persönliche Schutzausrüstung, um zu verhindern, dass die Person in eine Absturzposition gerät.



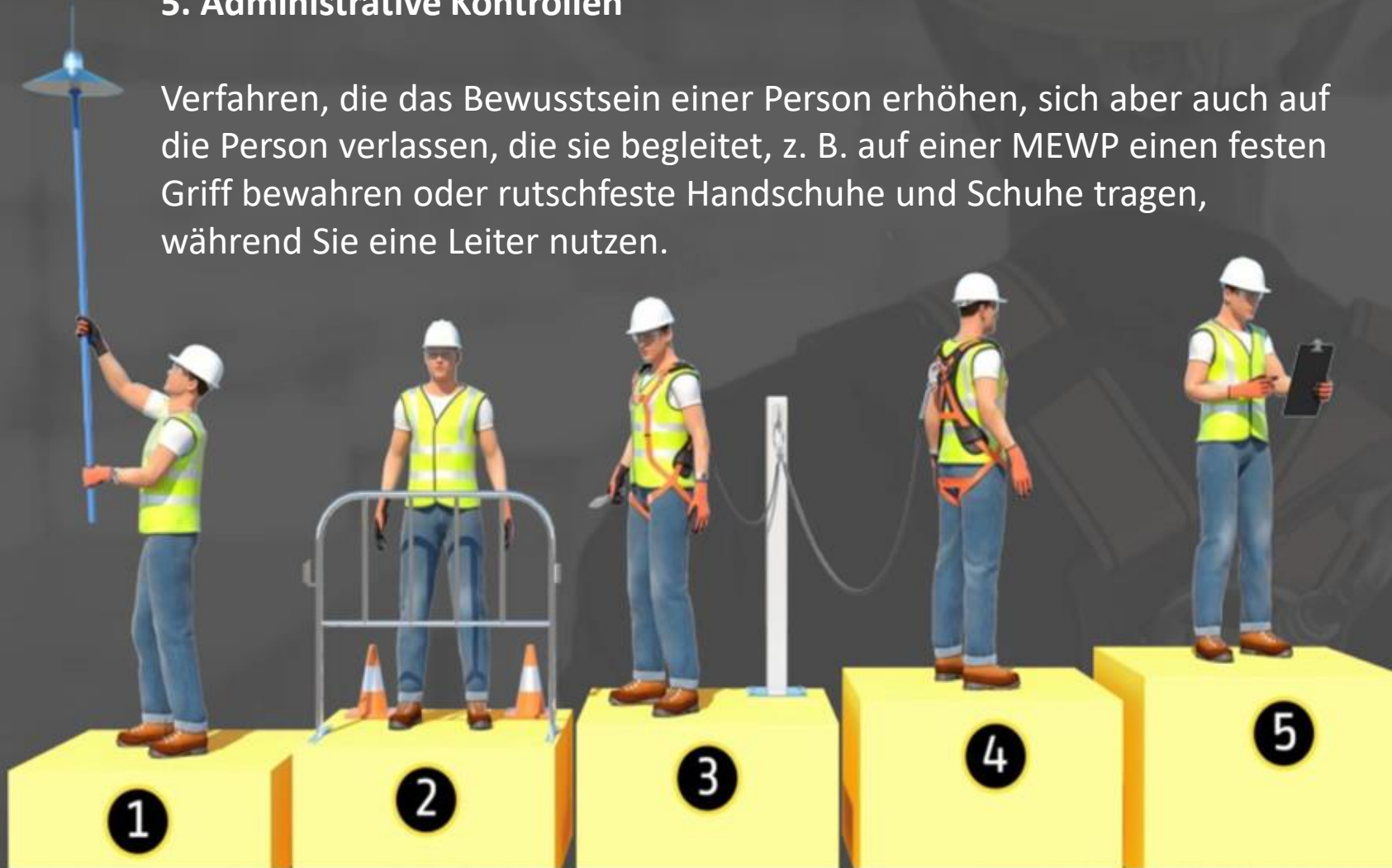
4. Verwendung von PSaGA.

Diese Methode verhindert keinen Absturz. Es verwendet eine Ausrüstung, um die Folgen eines Sturzes nach dessen Auftreten zu reduzieren.



5. Administrative Kontrollen

Verfahren, die das Bewusstsein einer Person erhöhen, sich aber auch auf die Person verlassen, die sie begleitet, z. B. auf einer MEWP einen festen Griff bewahren oder rutschfeste Handschuhe und Schuhe tragen, während Sie eine Leiter nutzen.



Weltweit führendes Training

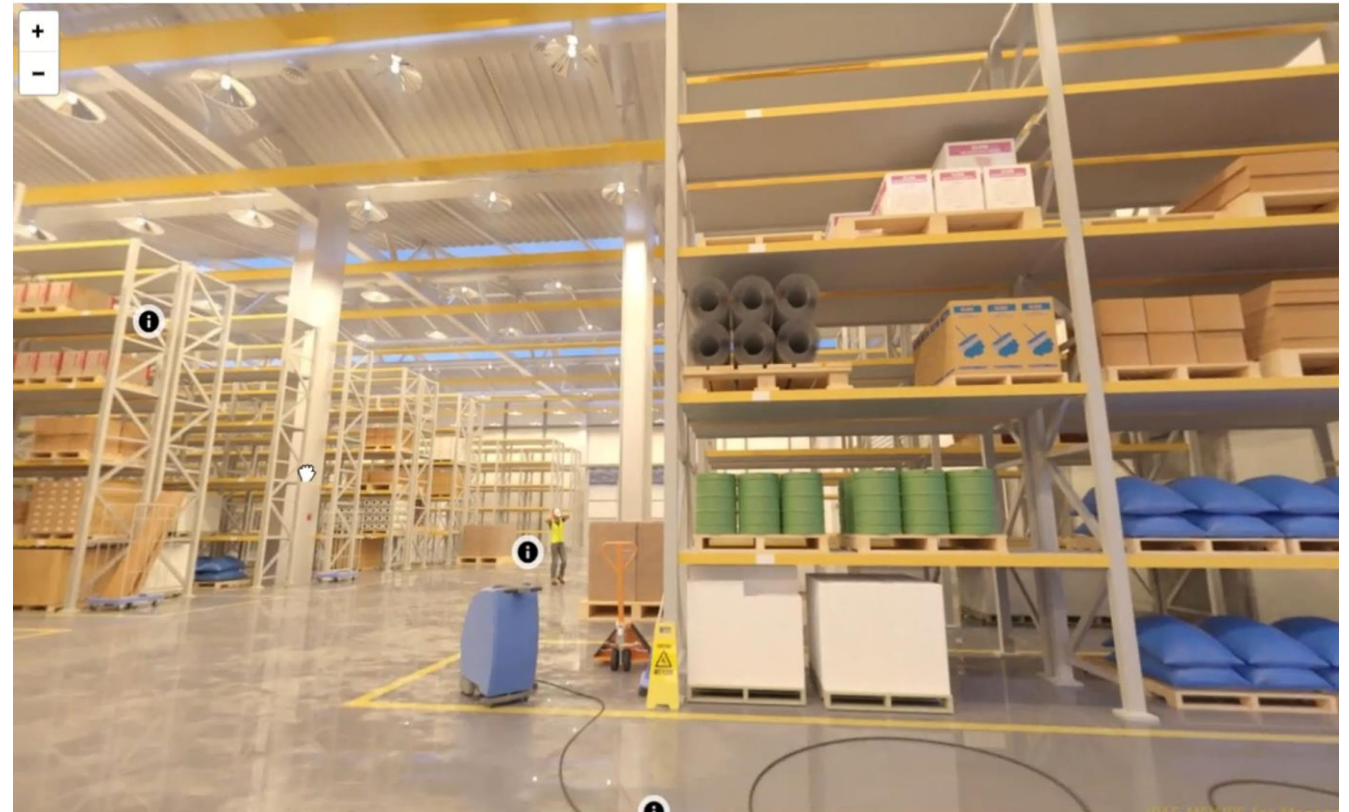
- Realistische Herausforderungen
- Lernen im Kontext





Weltweit führendes Training

- Realistische Herausforderungen
- Lernen im Kontext





Weltweit führendes Training

- Verwendet ein realistisches MEWP-Portfolio, um den Kandidaten ein besseres Verständnis der verschiedenen Maschinen, Typen und Spezifikationen zu vermitteln





4WD SCISSOR WITH STABILISERS

Specification

- Working height maximum - 17.11m
- (A)- Platform height maximum - 15.11m
- Platform height stowed - 1.8m
- Platform length stowed - 3.94m
- Platform length extended - 6.58m
- Slide out decks - 1.32m
- Platform width - 2.29m
- Guardrail height- 2.93m
- Height stowed - 2.39m (folded -1.8m)
- Length stowed - 4.88m
- Wheelbase - 2.84m
- Toe board height - 0.15m
- Ground clearance - 0.36m
- Platform occupancy - 7
- Lift capacity – 680kg (extended deck – 227kg)
- Drive height - full height
- Gradeability - 50%
- Turning radius (inside) - 2.16m
- Turning radius (outside) - 5.33m
- Tyres - foam filled rough terrain
- Weight - 6695kg
- Maximum chassis inclination -
 - 2° (side) 3° (front) 5° (rear)
- Maximum stabiliser levelling -
 - 7° front to back, 12° side to side
- Outdoor rating
 - Maximum side force - 400n
 - Max wind speed - 28 mph
 - Maximum platform occupants - 7
- Indoor rating
 - Maximum side force - N/A
 - Maximum wind speed - N/A
 - Maximum platform occupants - N/A



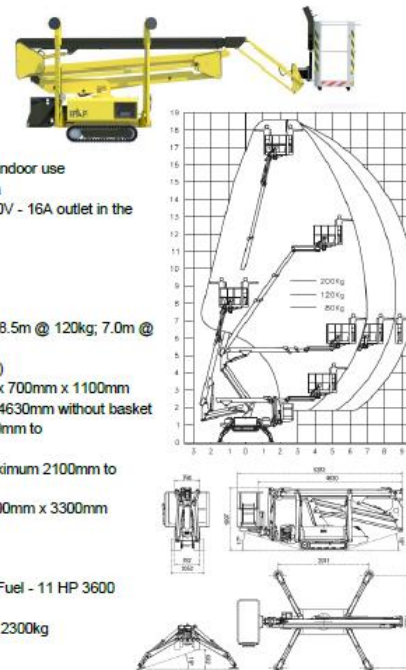
TRACKED BOOM R19

Specification

Movement via a wireless radio-control system, the IPAF R19 provides fast and versatile handling. Good traction and stability for building sites and rough terrain and automatic levelling. Available with non-marking tracks.

Standard equipment includes

- Automatic outrigger levelling
- Emergency hand pump
- Cylinder holding valve
- Hour meter, range limiter
- Hydraulically adjustable rubber track width
- 110V - 16A electro-pump for indoor use
- Wireless radio-control system
- Air and water outlet and a 110V - 16A outlet in the platform



Technical specification

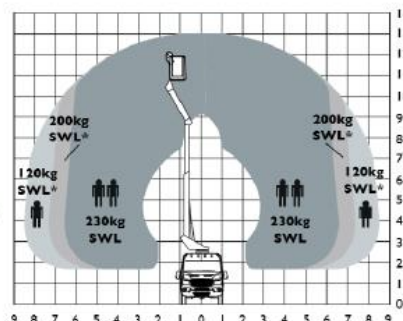
- Working height - 19m
- Platform height - 17m
- Side outreach 9.8m @ 80kg; 8.5m @ 120kg; 7.0m @ 200kg
- Slewing 360° (not continuous)
- Basket dimensions 1400mm x 700mm x 1100mm
- Transport length 5300mm or 4630mm without basket
- Transport width minimum 790mm to maximum 1060mm
- Height in stowed position maximum 2100mm to top of closed stabilisers
- Overall outrigger footprint 3200mm x 3300mm
- Driving speed 0 – 2 km/h
- Gradeability 25°
- Platform capacity 200kg
- Petrol engine Honda GX390 Fuel - 11 HP 3600 rpm
- Total weight of the machine - 2300kg



VEHICLE MOUNT

Specification

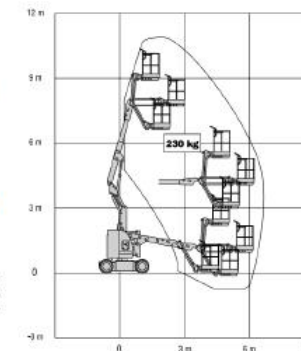
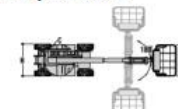
- Working height - 13m
- Platform height - 11m
- Horizontal outreach - 8.5m
- Up and over Height - 7.7m
- Swing - 360°
- Platform capacity - restricted 230 kg
- Platform size - 1.0 x 0.6m
- Platform rotator (hydraulic) - 180°
- Jib - range of articulation - 120°
- Tail swing (working condition) 0
- Stowed height - 3.15m
- Stowed length 6.74m
- Machine weight - 3500kg
- Maximum horizontal force - 400n
- Maximum wind speed - 12.5 M/s
- Maximum outrigger levelling - 5° front to back, 7° side to side



ELECTRIC AJ+

Specification

- Working height - 10.97m
- Platform height - 8.97m
- Horizontal outreach 6.12m
- Up and over height - 4.01m
- Swing (non-continuous) - 350°
- Platform capacity - unrestricted 230kg platform rotator (hydraulic) 180°
- Jib - overall length - 1.22m
- Jib - range of articulation - 144° vertical (+84°/-60°)
- Jib - range of articulation - 180° horizontal
- Platform size - 0.76m x 1.22m
- Overall width - 1.22m
- Tail swing (working condition) - 0
- Stowed height - 2.01m
- Stowed length - 5.54m
- Wheelbase - 1.65m
- Ground clearance - 0.10 m
- Machine weight 7100 kg
- Maximum ground bearing pressure - 11.95kg/cm²
- Drive speed - 7.2km/h
- Gradeability - 25%
- Slope - 4.0°
- Tyres - 25 x 7-12 non-marking
- Maximum horizontal force - 400n
- Maximum wind speed - 12.5 M/s
- Turning radius - inside 1.52m
- Turning radius - outside 3.10m
- Electrical system - 48V AC
- Drive motors - dual AC traction
- Brakes - automatic spring applied
- Hydraulic system - 23.0L



Rescue Plans



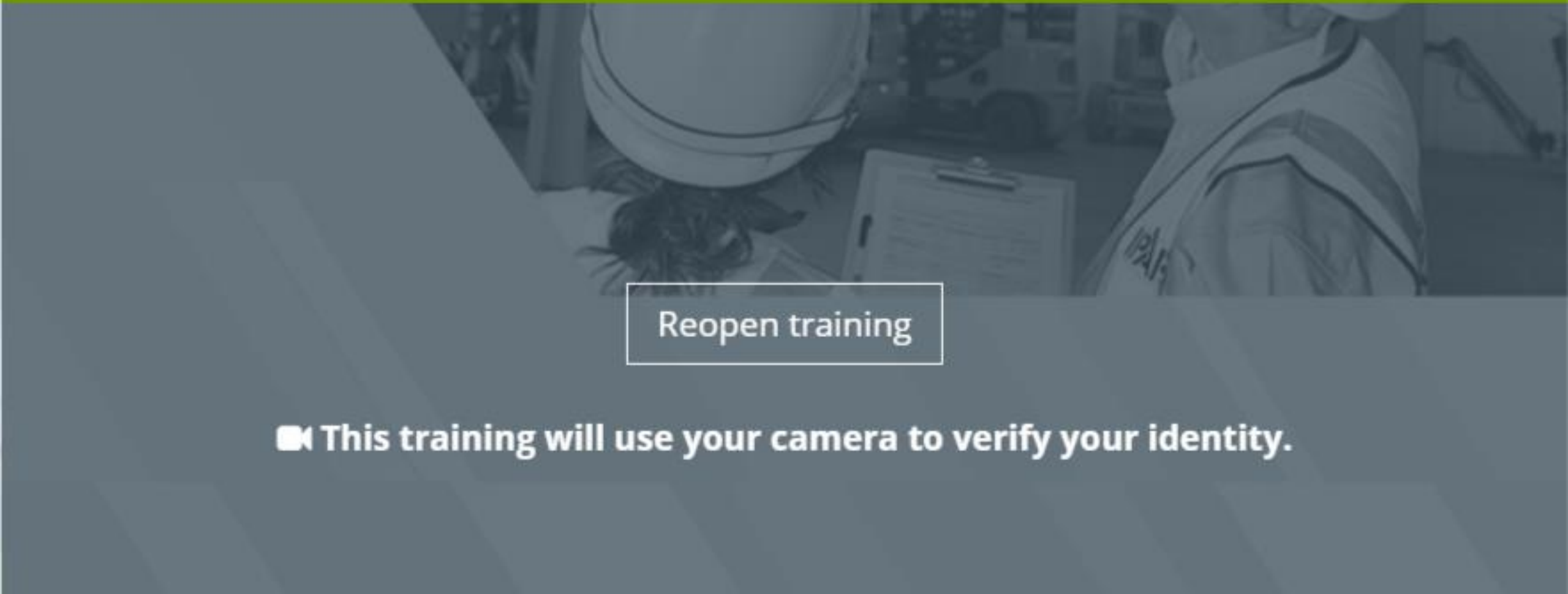
Recognizing Bad Practice

[Click here to read the transcript](#)





1. INTRODUCTION AND SAFETY BEYOND TRAINING

A grayscale background image showing a person wearing a white hard hat and a high-visibility safety vest. They are looking down at a clipboard held in their hands. The image is semi-transparent, allowing text to be overlaid.

Reopen training

📹 This training will use your camera to verify your identity.

Select each of the images below.



Webcam

Please ensure that you are not disturbed and you are alone while you undertake this training. The sensitive software may disable the training if another face or a different face is detected.

Continue



Klassenraum Version

- ➔ Umfangreiche Dokumente
- ➔ Alternativ zum eLearning
- ➔ Ausbilder

4



Advanced MEWP Operator course, e.g. PAL
Category specific training is helpful for safety

5

This course trains a demonstrator to familiarise with pre-operational and safe use

6

Example F

MEWP Operations

Job details: _____

Special tools to be used: _____

Job location/plant identification: _____

It is an essential requirement that all operators must be trained and competent to use the equipment. Do not proceed with your work until your permit has been issued.

HAZARDS AND PREVENTION

PRIMARY HAZARDS – Falling from Height, Trips

PLEASE ANSWER THE FOLLOWING QUESTIONS

Are you trained, qualified to undertake this work? _____

Do you have a current licence for the type and size? _____

Have you been familiarised on the specific MEWP? _____

Are there Electrical or Radio Frequency hazards? _____

Are there proximity hazards? _____

Are there obstacles or uneven ground? _____

Can the work be affected by weather? _____

Is the ground capable of taking the weight of the MEWP? _____

Is the area clear of any other personnel or obstructions? _____

Have precautions been taken to prevent objects falling from the MEWP? _____

Is there an effective means of communication? _____

Does the MEWP have a current Thorough Examination? _____

Do you have the correct PPE, or all of the hazards? _____

Has the MEWP been inspected prior to use? _____

Other instructions required: _____

Rescue plan: _____

Other safety equipment required: _____

Authorisation

I confirm that I have verified all of the above information and it is correct as defined above and the ground conditions have been verified.

PERSON IN CHARGE: _____

COMPANY: _____

SIGNATURE: _____

AUTHORISING PERSON: _____

7

MEWPs for Management

1. What is the primary fall protection for a MEWP?

2. What is the primary fall protection for a MEWP?

3. What is the primary fall protection for a MEWP?

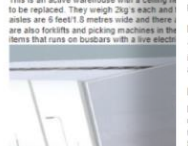
4. What is the primary fall protection for a MEWP?

5. What is the primary fall protection for a MEWP?

8

Pendleton

This is an active warehouse with a ceiling height of 12m. The weight of the MEWP is 1,200kg and the platform is 1,200kg. The MEWP is also forklift and picking machine in the items that run on batteries with a live electric.



External cladding needs to be attached to the structure. There is a pedestrian area in the ground three sides of the building at a width of 3m. The cladding measures 2000 x 1200 to fit and the highest point of rain predicted to be cloudy with a chance of rain predicted to range from 5mm-15mm.

9

EXAMPLE Lock out Tag out procedure

Purpose

This procedure establishes the minimum requirements for lockout of energy sources that could cause injury to personnel. All employees shall comply with the procedure.

Responsibility

The responsibility for seeing that this procedure is followed is binding upon all employees. All employees shall be instructed in the safety significance of the lockout procedure by (designated individuals). Each new or transferred affected employee shall be instructed by (designated individuals) in the purpose and use of the lockout procedure.

Preparation for Lockout

Employees authorized to perform lockout shall be certain as to which switch, valve, or other energy isolating devices apply to the equipment being locked out. More than one energy source (electrical, mechanical, or others) may be involved. Any questionable identification of sources shall be cleared by the employees with their supervisors. Before lockout commences, job authorization should be obtained.

Sequence of Lockout Procedure

1. Notify all affected employees that a lockout is required and the reason therefor.
2. If the equipment is operating, shut it down by the normal stopping device (such as: depress stop button, open toggle switch).
3. Operate the switch, valve, or other energy isolating device so that the energy source(s) (electrical, mechanical, hydraulic, other) is disconnected or isolated from the equipment.
4. Lockout energy isolating devices with an approved locking device, the key to which will be held by the person that would be at risk should the equipment be restarted.
5. Stored energy, such as that in capacitors, springs, raised machine members, rotating flywheels, hydraulic systems, and air, gas, steam or water pressure, must also be dissipated or restrained by methods such as grounding, repositioning, or bleeding down.
6. After ensuring that no personnel are working and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not start.
7. **CAUTION:** Return operating controls to their neutral position after the test.

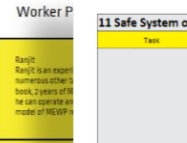
The equipment is now locked out.

Restoring Equipment to Service

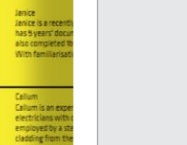
1. When the job is complete and equipment is ready for testing or normal service, check the equipment area to see that no one is present.
2. When equipment is clear, the person that was at risk may remove all locks. The energy isolating devices

10

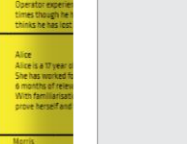
IPAF Worker P



Ranjit Ranjit is an expert in the use of MEWPs. He can operate all models of MEWPs.



Janice Janice is a 10 years experienced MEWP operator. She has completed all the necessary training and is fully qualified to operate all models of MEWPs.



Calum Calum is an expert in the use of MEWPs. He has completed all the necessary training and is fully qualified to operate all models of MEWPs.



Alice Alice is a 10 years experienced MEWP operator. She has completed all the necessary training and is fully qualified to operate all models of MEWPs.



Mark Mark is a 10 years experienced MEWP operator. He has completed all the necessary training and is fully qualified to operate all models of MEWPs.



Desmond Desmond is a 10 years experienced MEWP operator. He has completed all the necessary training and is fully qualified to operate all models of MEWPs.

11

Safe System of Work-

Task	Risk
Travelling and positioning	• Rough/Uneven ground
General Machine Use	• Spills and Fuel on floor
Elevating below an object	• Crushing
Pre Use Inspections	• Hazardous
Lifting the Cladding up to position	• Wind load
	• Loose the falling

12

Safe System of Work-

Task	Risk
Travelling and positioning	• Rough/Uneven ground
General Machine Use	• Spills and Fuel on floor
Elevating below an object	• Crushing
Pre Use Inspections	• Hazardous
Lifting the Cladding up to position	• Wind load
	• Loose the falling

13

Safe System of Work-

Task	Risk
Travelling and positioning	• Rough/Uneven ground
General Machine Use	• Spills and Fuel on floor
Elevating below an object	• Crushing
Pre Use Inspections	• Hazardous
Lifting the Cladding up to position	• Wind load
	• Loose the falling

14

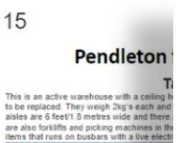
Safe System of Work-

Task	Risk
Travelling and positioning	• Rough/Uneven ground
General Machine Use	• Spills and Fuel on floor
Elevating below an object	• Crushing
Pre Use Inspections	• Hazardous
Lifting the Cladding up to position	• Wind load
	• Loose the falling

15

Pendleton

This is an active warehouse with a ceiling height of 12m. The weight of the MEWP is 1,200kg and the platform is 1,200kg. The MEWP is also forklift and picking machine in the items that run on batteries with a live electric.



Hazards you have spotted for Task 1:

Outside:

- Children
- Drain and water
- Oil spill
- Pollution from machine
- Lorry
- Dangerous ground
- Vehicles

You have selected this machine, IPAF ELECTRIC



16

Post-Herald

EMPLOYEE IN CRITICAL CONDITION AFTER FALL FROM CHERRY PICKER

Disaster at Dawn

Emergency services in Cleveland were called out earlier this evening after a 47-year-old man had been ejected from the platform of a cherry picker (a type of MEWP) and fallen 12 feet to the ground.

The accident occurred whilst Mr. Smith was delivering the cherry picker on site at X Utilities (UK) Limited. Eyewitnesses stated that the delivery vehicle was parked on a recently filled 3m long trench. The compacted trench collapsed when Mr. Smith started moving the machine, causing the delivery vehicle to lean to one side. Combined with wet conditions on the ground due to persistent rainfall throughout the day, the machine then slipped off to one side of the lorry, resulting in the cherry picker to overturn in an elevated position of 12 feet.



Although first aid was provided instantly, and he was rushed to the Holby City Hospital, the father of two young children is now in a very critical condition.

Over the next few days a post investigation will be carried out by the local Police and HSE.



Hubarbeitsbühnen für Führungskräfte wird dieses Jahr verfügbar sein in:

- Englisch
- Niederländisch
- Französisch
- Deutsch
- Portugiesisch
- Italienisch
- Spanisch



**Planen Sie lieber Ihre Baustelle –
und nicht Ihre Ausreden**

Vielen Dank