



Everything YOU Need to Know About MEWPs and Don't be Afraid to ASK

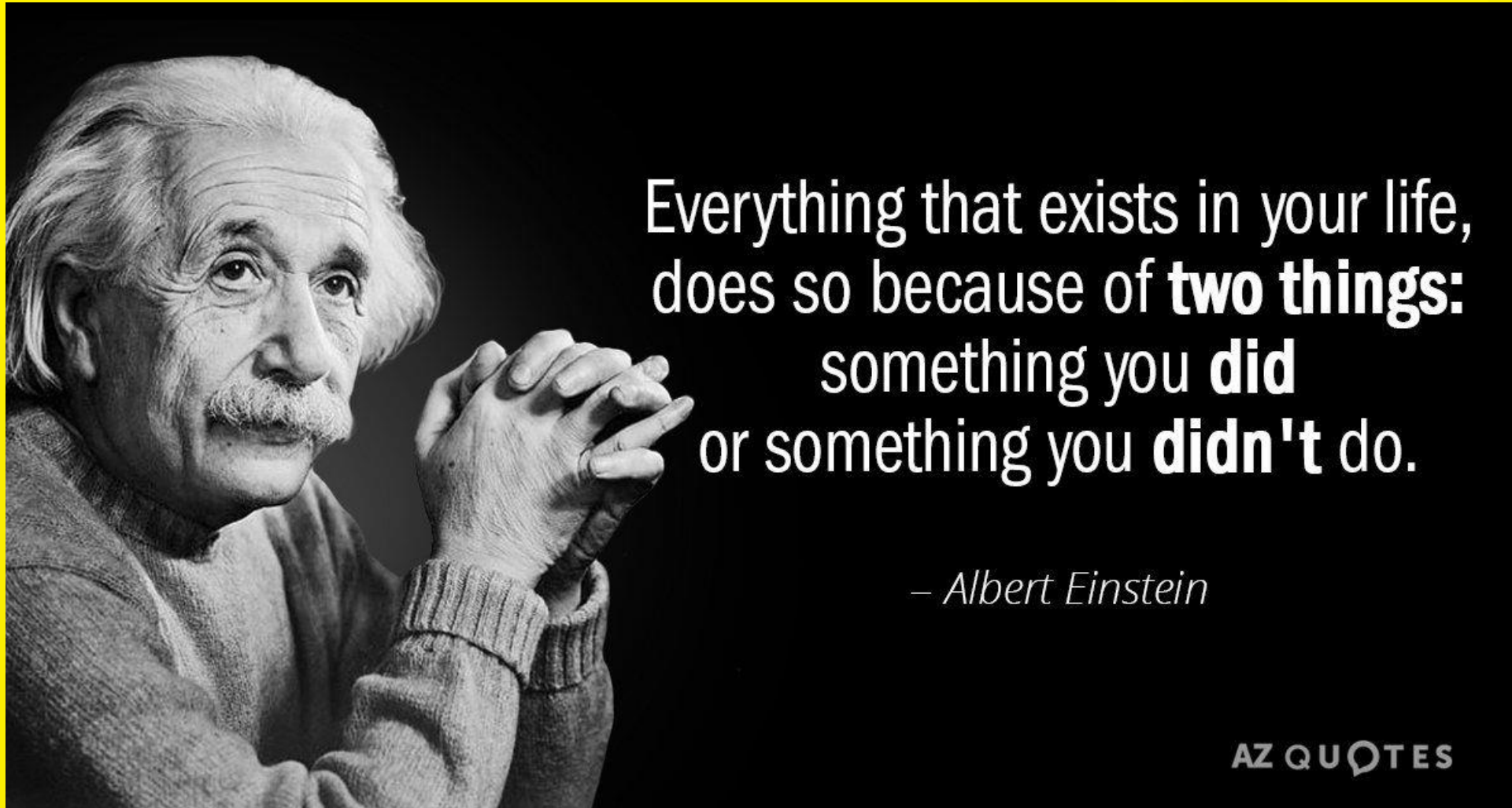
Mid Atlantic Construction Safety Council

September 8, 2023

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Why WE are Here



PRE-START INSPECTION

What are the **CRITICAL** components in the inspection process?

ANSI A92.22 5.5 Pre-start Inspection

Before each day or at the beginning of each shift, the user shall ensure and the operator shall perform a pre-start and functions test that includes the following:



Pre-start Inspection

Through the OSHA and Scaffold & Access Industry Association (SAIA) Alliance, SAIA developed this Tip Sheet for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor. (date)

Company Name: _____

AWP PRESTART INSPECTION SAFETY CHECKLIST

AWP manufacturer: _____ AWP Model No: _____ Project No: _____

Competent Person: _____ Equipment/ID No: _____ Hours: _____ Project Name: _____

The employer must assign a competent person to have a pre-start inspection and functions test completed. The inspection is required daily and at the beginning of each shift prior to operation. The inspection should begin with a visual examination of the AWP. If no obvious faults are identified, complete a function test of all controls starting with ground controls, followed by the work platform controls. Refer to the AWP manufacturer Operator's Manual stored on the AWP to identify additional manufacturer pre-start inspection recommendation for the model MEWP in use. The following items are a minimum requirement to be inspected as applicable. If not applicable, enter N/A.

All checks should be conducted in accordance with the manufacturer's manual		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY	
		Date:	Date:	Date:	Date:	Date:	Date:	Date:	
VISUAL CHECKS	Documentation	1 Current Annual Inspection							
		2 Manufacturer's operator manual on board							
		3 PPE/acc plan communicated							
	Wheels/tires	4 Wheel security (nuts, retainer: loose, damaged, missing)							
		5 Tire pressure (pneumatic, foam filled or solid)							
		6 Cuts, splits, exposed braiding, damaged ribs							
	Engine/power source	7 Fluid levels (engine oil, coolant, fuel)							
		8 Fluid leakage on ground and around engine							
		9 Battery electrolyte, security and charging plug condition							
	Hydraulics	10 Hydraulic fluid level							
		11 Leaks (lines, pipe connections, rams, cylinders)							
	Hoses and cables	12 Security and condition (cuts, chafing, bulging)							
		13 Power track cable trays (free from damage and debris)							
	Outriggers, stabilizers	14 General condition, protrusions, footpads							
		15 Spreader plates (present, condition, secure for travel)							
		16 Interlocks (functioning, engaged)							
	Chassis, boom and collector peak	17 General condition (damage, misalignment, corrosion)							
		18 Cracks in weld							
		19 Pins, retainers, and chains (security, signs of wear)							
		20 Canopies, guards, engine covers (security and condition)							
	Platform or cage	21 Steps for access (steps, beams, undamaged, clear)							
		22 Entrance pins, guardrails and retaining pins							
		23 Harness anchor points							
		24 Clear of rubbish, debris and obstructions							
	Debris and signage	25 ID plate, safety warnings and information decals (legible)							
		26 Controls (identification decals, directional arrows)							
		27 Platform loads (SWL, max. wind speed, max. number of persons)							

G P G P G P G P G P G P

FUNCTION CHECKS		MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
		Date:	Date:	Date:	Date:	Date:	Date:	Date:
Using Ground (G) and Platform/controls	28 Security device (power release, bypass)							
	29 Function enables (operation key, foot switch, hold to run device)							
	30 Emergency stop and emergency lowering system							
	31 All switches, function controls (move freely, do not stick)							
	32 Lifting functions (raise, lower, slow, hold-out, hold-in)							
	33 Travel functions (forward, reverse, stop, brakes)							
	34 Elevated drive speed (reduced or prevented)							
	35 Lights, beacons, warning devices							
	36 Alarms (sl, descent, and travel)							
	37 Limit switches (e.g., descent, load, outreach, rotation)							
	38 Physical protection device (fully displays and retracts)							
	39 Check/lifting axle locks, extending axles							
	40 Accessories, power to platform, extending decks							
	41 Jacks-legs, stabilizers, outriggers, leveling devices							

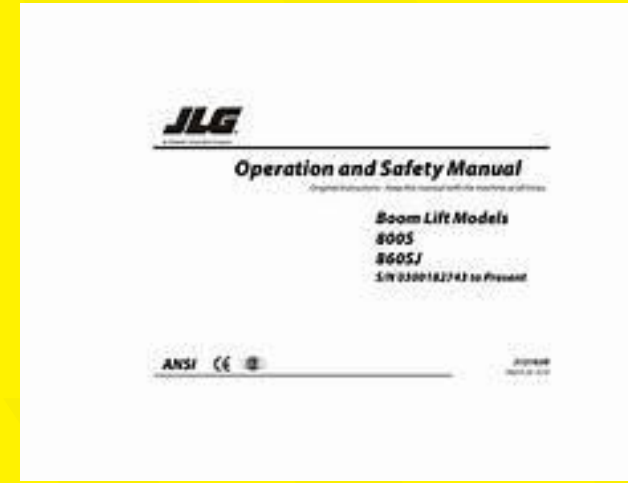
Installed: Installed: Installed: Installed: Installed: Installed: Installed: Installed:

ALL PROBLEMS OR MALFUNCTIONS (✓) TO BE REPORTED IMMEDIATELY TO THE COMPETENT PERSON

If any items are found not to be working properly, labels or manuals are not legible or are missing, or anything else is not right, **DO NOT OPERATE THE LIFT: Isolate, Tag and Report to competent person.**

Remarks: _____

Signature: _____ Print name: _____ Date: _____



Do you accept a  or an INSPECTION



WHAT ARE THE CRITICAL COMPONENT INSPECTION PROCESS?



5.5 Pre-start Inspection

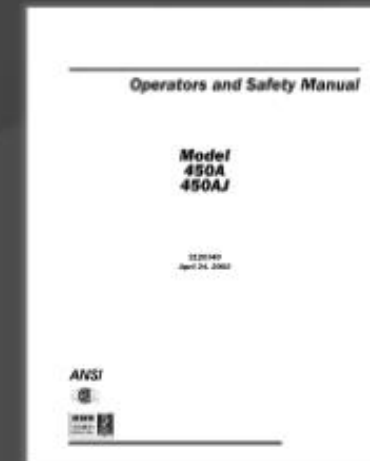
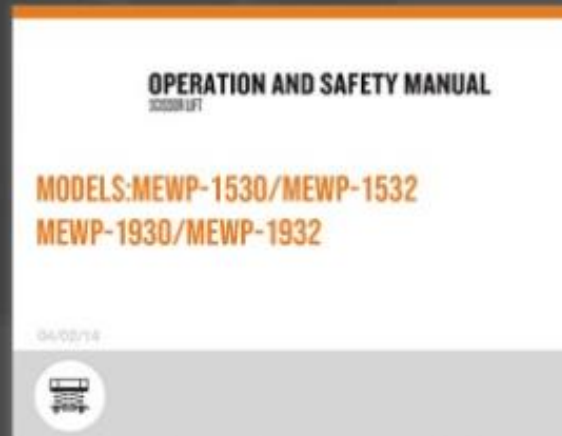
Before each day or at the beginning of each shift, the user shall ensure and the operator shall perform a pre-start and functions test that includes the following:

- a) operating and emergency controls;
- b) audible and visual alarms and beacons;
- c) personal protective devices that will be worn while operating/occupying the MEWP;
- d) air, hydraulic and fuel-system leaks;
- e) electrical cables and wiring harness;
- f) loose, damaged, worn or missing parts;
- g) tires (where applicable tire pressure), wheels and wheel fasteners;
- h) instructions, warnings, control markings and operator's manual(s);
- i) structural items including extending structure and stabilizers/outriggers;
- j) work platform, including guardrail system, floor, anchorage and mounting;
- k) cleanliness and general signs of damage;
- l) brake operation and performance;
- m) fluid levels including engine coolant, engine oil and hydraulic oil;
- n) pins, pin securing devices and visible damage to the means of support of the work platform and extending structure;
- o) operation of stabilizers/outriggers, extendable and oscillating axles; and
- p) any additional item specified by the manufacturer.

ANY ADDITIONAL ITEMS SPECIFIED BY THE MANUFACTURER

Manufacturer's Operator's Manual

- A required manual from the MEWP manufacturer to be stored on and be an integral part of the MEWP is mandatory reading for users and operators.
- Compliance with manufacturer recommendations must follow this manual.
- Provides requirements that may be unique to the specific model required to complete familiarization and inspections.



JLG: DAILY WALK-AROUND INSPECTION

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION & INSPECTION

2.2 PREPARATION, INSPECTION, AND MAINTENANCE

The table below covers the periodic machine inspections and maintenance recommendations for further requirements for aerial work platforms. The frequency of inspection necessary when the machine is used in a harsh or hostile environment, if the machine is used in a severe manner.

Table 2-1. Inspection and Maintenance Table

Type	Frequency	Primary Responsibility	Qualification
Pre-Start Inspection	Before using each day, or whenever there's an Operator change.	User or Operator	User or Operator
Pre-Delivery Inspection (see note below)	Before each sale, lease, or rental delivery.	Owner, Dealer, or User	Qualified
Frequent Inspection	In service for 3 months or 150 hours, whichever comes first; or Out of service for a period of more than 3 months; or Purchased used.	Owner, Dealer, or User	Qualified
Annual Machine Inspection (see note below)	Annually, no later than 13 months from the date of prior inspection.	Owner, Dealer, or User	Factory Service (Recom)
Preventative Maintenance	At intervals as specified in the Service and Maintenance Manual.	Owner, Dealer, or User	Qualified

NOTE: Inspection forms are available from JLG. Use the Service and Maintenance Manual to perform inspections.

NOTICE

JLG INDUSTRIES, INC. RECOGNIZES A FACTORY-TRAINED SERVICE TECHNICIAN AS A PERSON WHO HAS SU

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION & INSPECTION

Function Check

Perform the Function Check as follows:

- From the ground control console with no load in the platform:
 - Check that all guards protecting the function control switches and controllers are in place.
 - Operate all functions and check all limiting and cutout switches.
 - Check manual descent.
 - Ensure that all machine functions are disabled when the Emergency Stop Button is depressed.
- From the platform control console
 - Ensure that the control console is in the proper location.
 - Check that all guards protect control switches and controllers
 - Operate all functions and check all limiting and cutout switches.
 - Ensure that all machine functions are disabled when the Emergency Stop Button is depressed.
- With the platform in the transport position
 - Drive the machine on a graded gradeability, and stop hold.
 - Check the tilt indicator light operation. The light should be tilted.

Operate all functions and check all limiting and cut out switches.

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION & INSPECTION

Begin the Walk-Around Inspection at Item 1, as noted on the diagram. Continue left (counterclockwise viewed from top) checking each item in sequence for the conditions listed in the following checklist.

WARNING

TO AVOID POSSIBLE INJURY, BE SURE MACHINE POWER IS "OFF" DURING WALK-AROUND INSPECTION.

NOTICE

DO NOT OVERLOOK VISUAL INSPECTION OF CHASSIS UNDERSIDE. CHECKING THIS AREA OFTEN RESULTS IN DISCOVERY OF CONDITIONS WHICH COULD CAUSE EXTENSIVE MACHINE DAMAGE.

INSPECTION NOTE: On each item, make sure there are no loose or missing parts, that they are securely fastened, and that no visible damage exists in addition to any other criteria mentioned.

- Platform Control Console - Placard secure and legible, control lever and switches return to neutral, control lever lock and emergency stop switch function properly, manual in storage box.
- Steer Cylinder - See Inspection Note.
- Spindle, Tie Rod, Drive Motor and Steer Linkage (left front) - See Inspection Note.

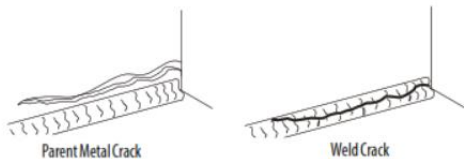
- Pothole Protection System - See Inspection Note.
- Battery Compartment - Proper electrolyte level.
- Manual Descent - See Inspection Note.
- Beacon - See Inspection Note.
- Rotary Angle Switch - See Inspection Note.
- Ground Controls - Placard secure and legible, control switches return to neutral position, emergency stop switch functions properly. Control markings legible.
- Hydraulic Pump/Motor, Control Valve Installation - No unsupported wires or hoses; no damaged or broken wires - See Inspection Note.
- Lift Cylinder - See Inspection Note.
- Spindle, Tie Rod, Drive Motor and Steer Linkage (left front) - See Inspection Note.
- Scissor Arms, Pivot Pins and Sliding Wear Pads (Not Shown) - See Inspection Note.
- Platform/Handrail Installation (Not Shown) - See Inspection Note.

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION & INSPECTION

Pre-Start Inspection

The Pre-Start Inspection should include each of the following:

- Cleanliness** - Check all surfaces for leakage (oil, fuel, or battery fluid) or foreign objects. Report any leakage to the proper maintenance personnel.
- Structure** - Inspect the machine structure for dents, damage, weld or parent metal cracks or other discrepancies.

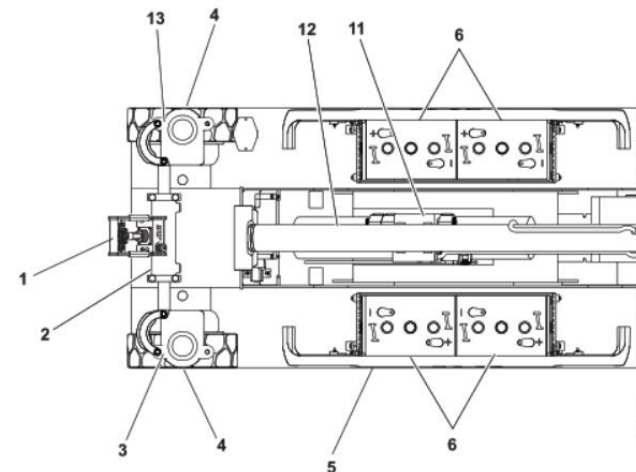


- Decals and Placards** - Check all for cleanliness and legibility. Make sure none of the decals and placards are missing. Make sure all illegible decals and placards are cleaned or replaced.
- Operation and Safety Manuals** - Make sure a copy of the Operator and Safety Manual, AEM Safety Manual (ANSI markets only), and ANSI Manual of Responsibility

- ties
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5. Wall
6. Batt
7. Fuel
8. Engi
- oil le
- cap i
9. Fluid
- hydr
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SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION & INSPECTION

Walk-Around Inspection



SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION & INSPECTION

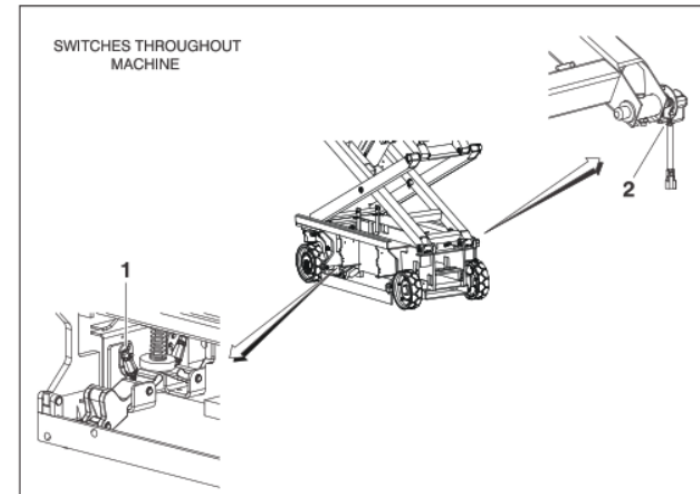


Figure 2-1. Switch Locations

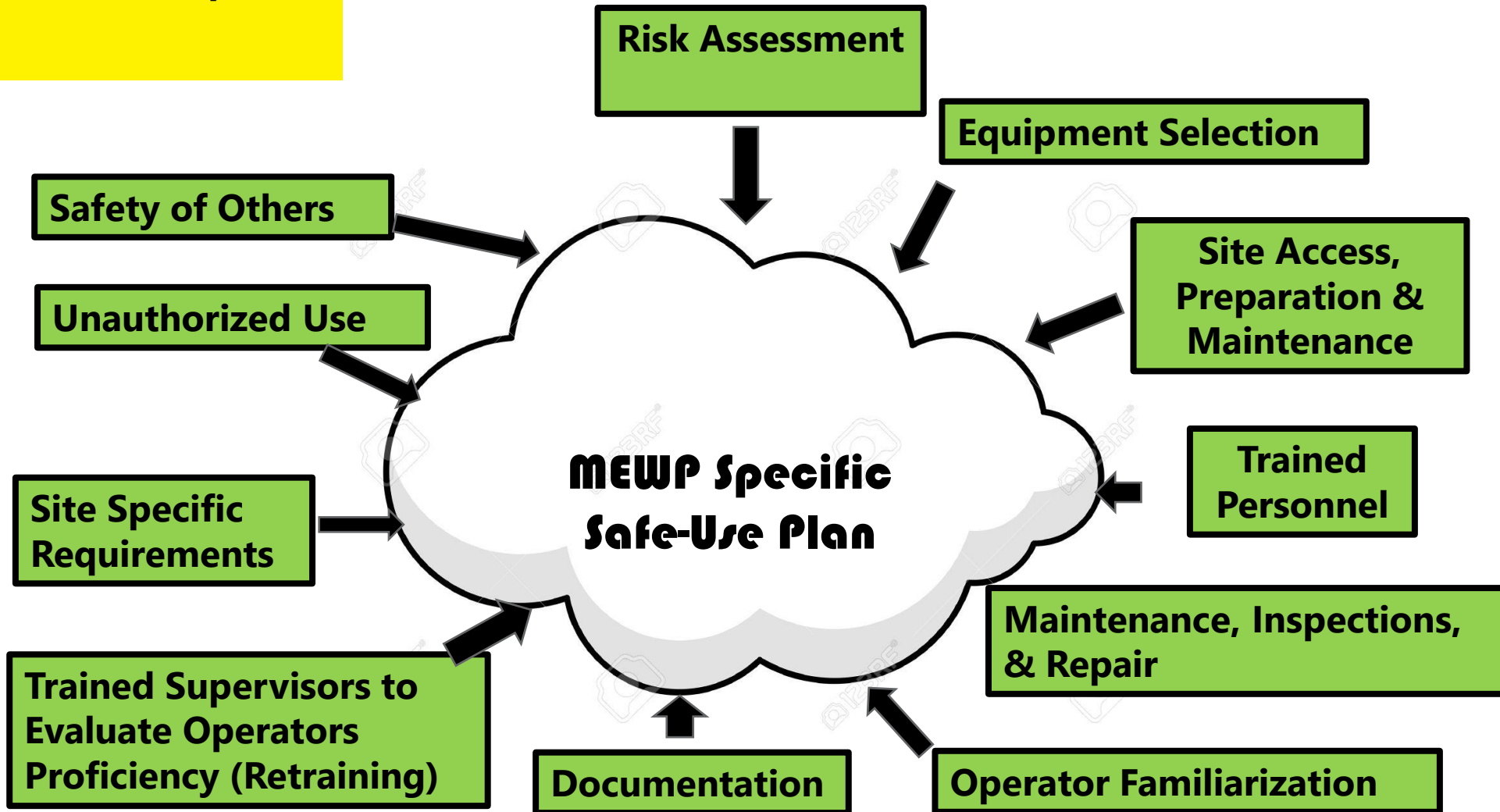
Passive Oscillating Axle



Processes in a Safe-Use Plan



A SAFE-USE PLAN or System of Work is required



MEWP SAFE USE PROGRAM GUIDE – Tony Groat



Promoting the safe and effective use of powered access

MEWP SAFE USE PROGRAM GUIDE

TE 1099-1127-1-06-03



RISK ASSESSMENT

A risk assessment is an essential component of worker site safety. MEWP Users (employers of MEWP operators) must ensure the completion of a site-specific risk assessment provides to "find and fix" potential workplace hazards before they can cause injury or illness. The A92.22/B354.7 safe use standard details the stages of a Risk Assessment to be completed by a qualified person for all workplaces where a MEWP will be operated.

Assess the Risks Associated with the Task: Consider the risks associated with the site location, the work to be carried out, the weather, the nature of the operation of the MEWP, etc. Assess the likelihood and severity of the risk.

Identify Control Measures & Safe Work Procedures: Once your potential risks have been identified, determine countermeasures to mitigate that risk. Consider, training, warning, procedures, etc. that impact and reduce the exposure or severity of the risk to an acceptable level.

Create a Rescue Plan: Rescue planning is a necessary component of a risk assessment when working at height. There are situations that require prior planning to ensure a safe and timely rescue. System failures, falls from height where occupants are left suspended outside the platform, and operator incapacity are examples that may require different plans.

Communicate the Results & Ongoing reviews: Determine how the results of this risk assessment will be effectively communicated with those involved (eg discussion/review before work shift) and set periodic review schedule to review. If modifications to the risk assessment are required, these changes shall be communicated prior to resuming the work.

ACTION STEPS

Assign a qualified person (MEWP supervisor) to complete a workplace risk assessment prior to the start of work, communicate the plan to all involved, and ensure continued monitoring of the workplace when works begins.

Identify the task to be undertaken: Provide a description of the work to be performed including as much detail as possible. Consider all activities where a MEWP will be operated (loading, unloading, inspections, demonstrations – any form of use). When is the work to be performed – day, week, month, year – what season, indoor or outdoors, what is the time allowed and deadline for completion? Day or night? Weather conditions?

Select an appropriate MEWP: How many people are required to perform the task? What is the weight of tools and materials needed? Where is the work that needs to be completed – location, access to the area, indoor/outdoor, height, reach, ground conditions, etc. Do you have trained operator(s) qualified for task?

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

IPAF is developing more detailed information on assessing risk; to view existing supporting materials click here.

EQUIPMENT SELECTION

ACTION STEPS

- Identify the MEWP to be used for the task.
- Check the MEWP's load capacity, height, reach, and stability against the task requirements.
- Check the MEWP's ground conditions and stability against the task requirements.
- Check the MEWP's safety features and controls against the task requirements.
- Check the MEWP's maintenance and inspection records against the task requirements.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

SITE ACCESS, PREPARATION AND MAINTENANCE

The risk assessment will determine the appropriate MEWP to be used for the task. The MEWP operator must ensure the MEWP is suitable for the task, the site location, the weather, the nature of the operation of the MEWP, etc. Assess the likelihood and severity of the risk.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

RESCUE PLAN

Rescue planning is a necessary component of a risk assessment when working at height, addressing the potential for a worker to become suspended from the MEWP. The rescue plan should be developed before the work begins and should be reviewed and updated as necessary.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

MAINTENANCE, INSPECTIONS AND REPAIRS

ACTION STEPS

- Identify the MEWP to be used for the task.
- Check the MEWP's maintenance and inspection records against the task requirements.
- Check the MEWP's safety features and controls against the task requirements.
- Check the MEWP's ground conditions and stability against the task requirements.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

TRAINED, FAMILIARIZED AND AUTHORIZED OPERATORS

When a MEWP is used in a project, regardless of whether it is a one-off or a regular task, the operator must be trained, familiarized and authorized to use the MEWP. The user is responsible to ensure proper use of the MEWP.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

SITE SPECIFIC REQUIREMENTS

The requirements by building owners, construction managers, general contractors or other site stakeholders must be identified before entering the worksite. The user must review the project plan and site specific requirements and ensure the MEWP is suitable for the task.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

TRAINED SUPERVISOR TO EVALUATE OPERATOR PROFICIENCY

A MEWP supervisor is a person assigned by the MEWP User to monitor operator performance and ensure the safe use of the MEWP. The supervisor must be trained, familiarized and authorized to use the MEWP. The user is responsible to ensure proper use of the MEWP.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

UNAUTHORIZED USE

When a MEWP is used in a project, regardless of whether it is a one-off or a regular task, the operator must be trained, familiarized and authorized to use the MEWP. The user is responsible to ensure proper use of the MEWP.

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- IPAF Global MEWP Safety Report

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When a MEWP is used in a project, regardless of whether it is a one-off or a regular task, the operator must be trained, familiarized and authorized to use the MEWP. The user is responsible to ensure proper use of the MEWP.

References & Tools

- Risk Assessment Worksheet
- Risk Assessment Guide
- IPAF Global MEWP Safety Report

REGULATIONS & STANDARDS



OSHA VS. ANSI

OSHA

VS.

ANSI

- Is the law
 - Regulations are created through the legislative process
 - Significant challenge in creating and updating regulations
- Voluntary standard
 - Establish state of the art requirements and are created by experts from all sides of the industry, sometimes including OSHA

REGULATIONS & STANDARDS



OSHA REGULATIONS

A DIFFERENT VIEW ON
THE SAME TOPIC



ANSI/SAIA STANDARDS

A screenshot of the Merriam-Webster website comparing the words 'voluntary' and 'mandatory'. The page is split into two columns by a diagonal line. The left column is for 'voluntary' and the right for 'mandatory'. Both are listed as adjectives. The 'voluntary' definition includes 'proceeding from the will or from one's own choice' and 'unconstrained by interference'. The 'mandatory' definition includes 'required by a law or rule' and 'of, by, relating to, or holding a League of Nations mandate'. A large red 'VS' is placed in the center between the two columns. The Merriam-Webster logo and 'SINCE 1828' are visible at the top of each column.

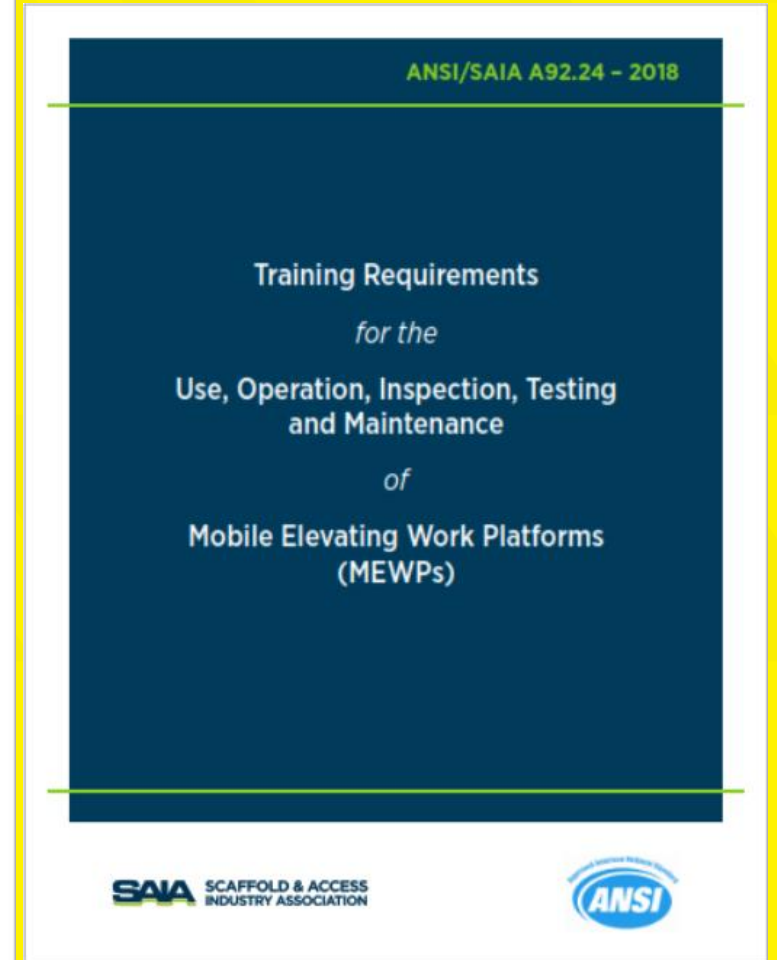
Regulations and Standards

OSHA General Industry

- **Subpart:** 1910 Subpart F
- **Subpart Title:** Powered Platforms, Manlifts, and Vehicle-Mounted Work Platforms
- **Standard Number:** 1910.67
- **Title:** Vehicle-mounted elevating and rotating work platforms

OSHA Construction

- **Subpart:** 1926 Subpart L
- **Subpart Title:** Scaffolds
- **Standard Number:** 1926.453
- **Title:** Aerial lifts.



REGULATIONS & STANDARDS: Questions?



1. Are there any changes to OSHA regulations about this equipment?
2. Has OSHA adopted ANSI A92.2 (2020). Specifically, regarding the requirement for a designated MEWP Supervisor/Supervisor Training and the requirement for a written rescue plan?
3. Does IPAF work with ANSI on proposals for rulemaking??

FEELING Safe
and
BEING Safe

Are Not The Same Thing



Safe people do what they need to do, whether they feel like it or not

What do YOU NEED TO DO to Be Safe?

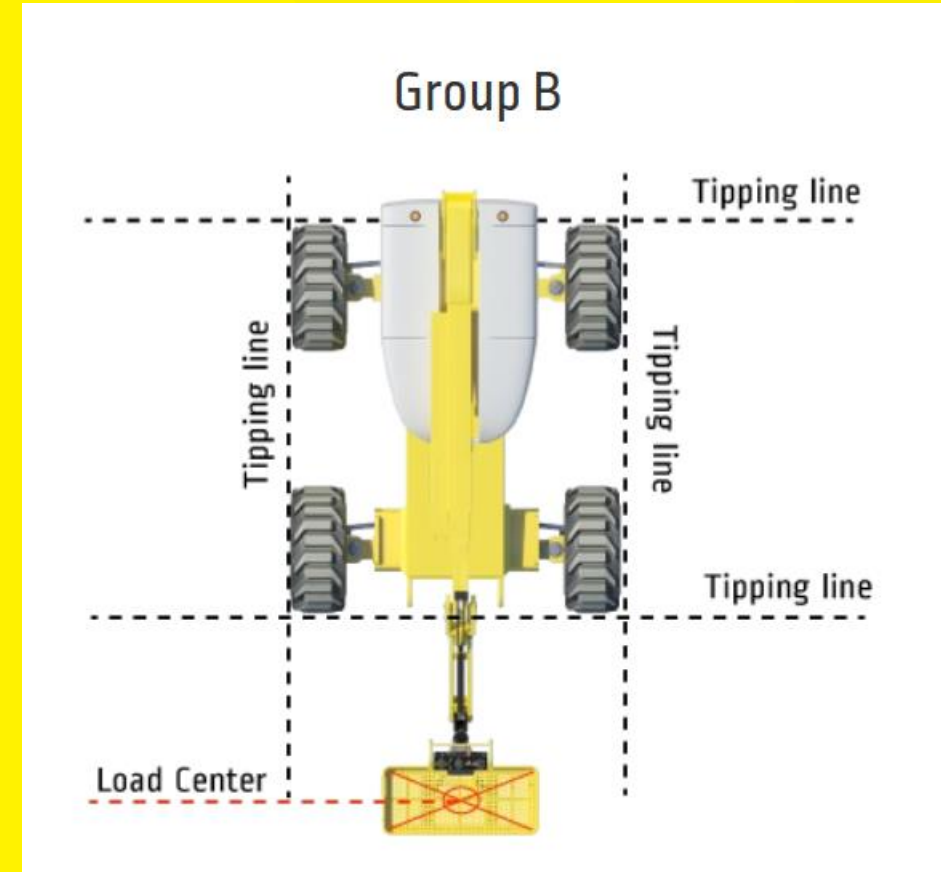
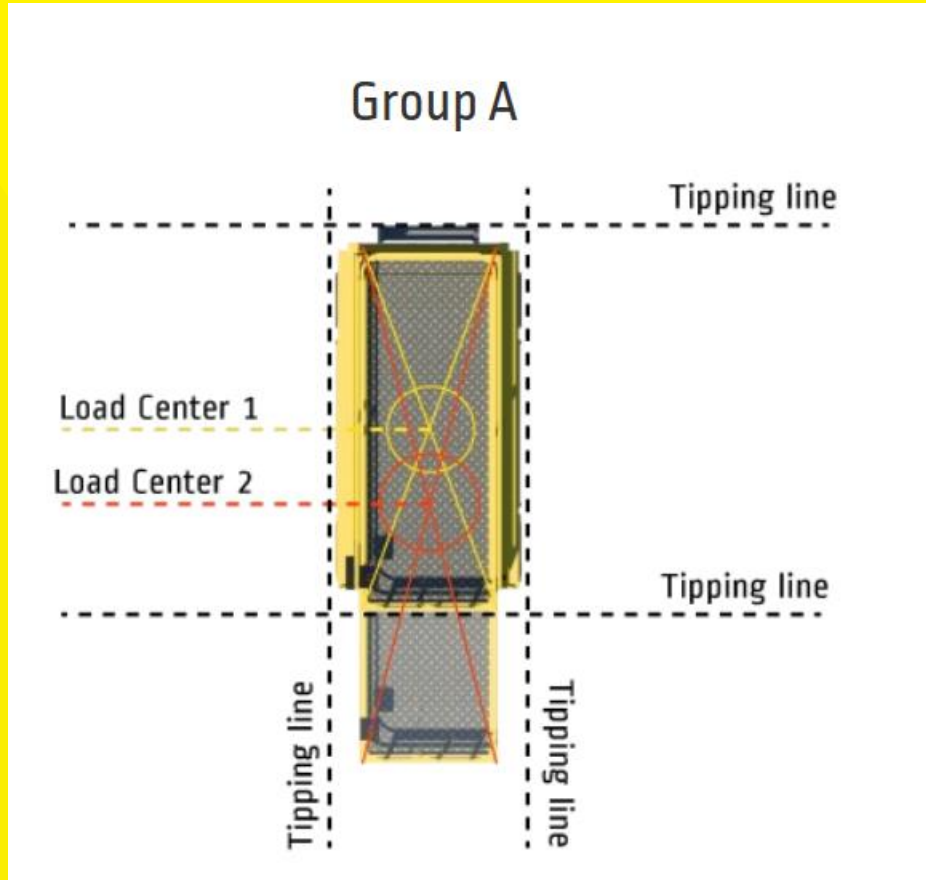


MEWP CATEGORIES

Training will be required for different MEWP classifications and each classification shall identify both the group and type of the MEWP for which training is provided.



MEWP GROUPS - Platform Location in Reference to Tipping Line



MEWP TYPES - Reference to Traveling, Out of Stowed Position

Type 1: Travelling is only allowed with the MEWP in its transport configuration

Type 2: Travelling with raised work platform is controlled from a point of control at the chassis

Type 3: Travelling with raised work platform is controlled from a point of control at the work platform

Understanding MEWP Categories = Group + Type



Group a type 1
1a Static Vertical



Group a Type 3
3a mobile vertical



Group b Type 1
1b Static Boom



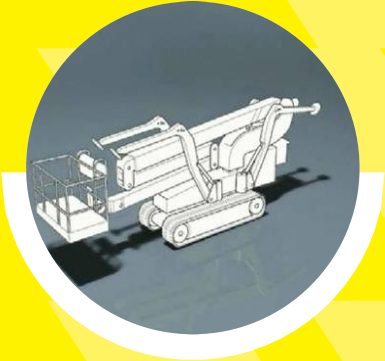
Group b Type 3
3b Mobile Boom

Can you drive an aerial lift while it's fully extended?

1b MEWP Examples



Towable Boom



Compact Lift



Truck-mounted boom



Truck or Van Mounted Aerial Device

What is the MEWP Category for these MEWPs



Which is a MEWP vs Forklift?



Risk Assessment

Stages to a MEWP Risk Assessment



STAGES OF A RISK ASSESSMENT

1. Identify the Task to be Undertaken
2. Selection of equipment and tools for the task
3. Assess the Risks Associated with the Task
4. Identify Control Measures
5. **Identify Safe Work Procedures**
6. **Rescue from Height**
7. Communicate the Results



1. Identify Tasks to be Undertaken

Discuss with your team members ALL possible activities it will take to complete the project.

- Delivery and PU from site
- Traveling on site
- Set-up
- Operations
- Inspections & maintenance
- Monitoring, supervision, and evaluations
- Safety of Others
- Fueling/charging
- Daily parking/storage
- ETC.....

Tasks Involved Planning a Project		
	Task Detail	Task Purpose
Task 1	Review and assess detailed project requirements, constraints and assumptions with stakeholders based on project charter and previous projects lessons learned	Establish detailed project deliverables.
Task 2	Develop scope management plan, based on the approved project scope.	Define, maintain and manage scope of project.
Task 3	Develop the cost management plan based on project scope, schedule, resources, approved project charter and other information.	Manage project costs effectively.
Task 4	Develop the project schedule based on the approved project deliverables, milestones, scope and resource management plans.	Manage timely completion of the project.
Task 5	Develop the human resource management by defining roles/responsibilities of the project team members	Create a project organizational structure and determine how resources will be assigned and managed.
Task 6	Develop the communications management plan based on the project organizational structure and stakeholder requirements	Define and manage flow of project information.
Task 7	Develop the procurement management plan based on the project scope, budget and schedule.	Ensure that the required project resources will be available.
Task 8	Develop the quality management plan and define the quality standards for the project and its products based on scope, risks and requirements.	Prevent the occurrence of defects and control the cost of quality.
Task 9	Develop the change management plan by defining how changes will be addresses and controlled	Track and manage change during the project.
Task 10	Develop the risk management plan by identifying, analysing and prioritizing project risk. Create risk register and define risk responses.	Manage uncertainty and opportunity throughout the project.
Task 11	Present the project management plan to relevant stakeholders according to organization policies and procedures.	Obtain approval to proceed with project execution.
Task 12	Hold a kick-off meeting, communicating start of the project, key milestones and other relevant information.	Inform and engage stakeholders to gain commitment for project
Task 13	Develop the stakeholder management plan by analysing needs, interests and potential impact.	Effectively manage stakeholders expectations and engage them when required.

MEWP SELECTION

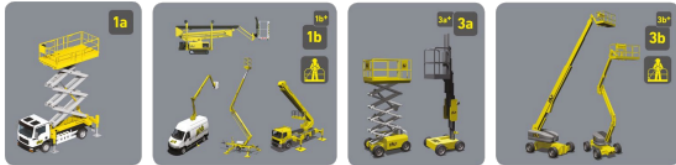


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MEWP SELECTION CHECKLIST

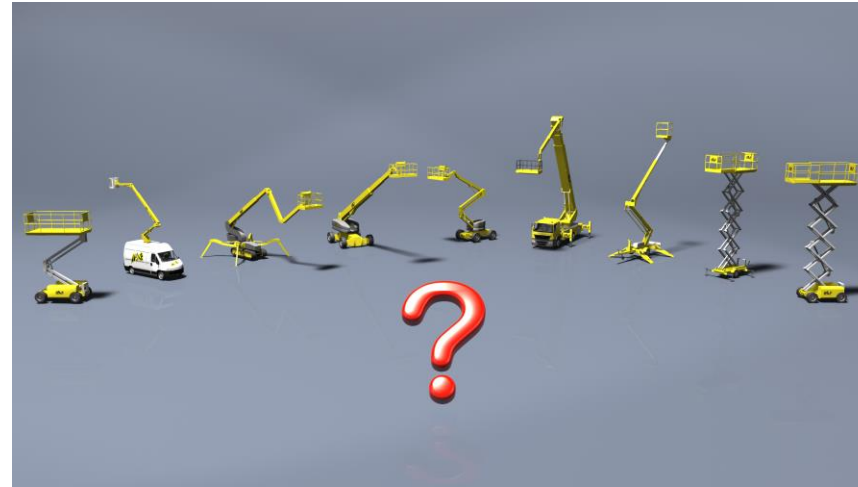
This should be completed by a qualified person and where any doubts remain advice should be sought from the mobile elevating work platform (MEWP) supplier.



Using the checklist overleaf, enter any restrictions, working height, outreach, weight of materials etc. determined to assist in selection the correct MEWP.

Task height	
Reach required	
Up and over height	
Actual task to be performed	
Can ground support loads imposed by MEWP	
Can MEWP be set close enough to reach work area	
Number of people required	
Load weight	
Notes	

Name of person completing	
Signature	Date MM / DD / YYYY



This is not an exhaustive list and is for general guidance only. **Things to Consider: Height and Outreach / The Task / Environment / Terrain / Access / Training and Supervision.**

Criteria Observed	
✓ or	
HEIGHT AND OUTREACH	
Work is straight up	Vertical platform (Group A) or Telescopic boom or mast boom (Group B)
Work requires reach	Mobile Boom 3B or Static Boom 1B or 3a with extension deck
Work is up and over an obstacle	Articulating boom (Group B) or 3a with extension deck
THE TASK	
Height of task	The Operator must be able to work comfortably from the platform
Distance of reach required	You must take account of the width of the MEWP in addition to this, how close the MEWP can be setup to the face of the work, and the Operator must be able to work comfortably from the platform
Size and weight of materials	Accurately define the weight of workers, tools and materials and never exceed the SWL. There are accessories for some MEWPs that can secure pipes/boards etc. See supplier to determine options.
THE ENVIRONMENT	
Work is indoors	Battery, LPG or Hybrid, no-power/push around
Work is outdoors	Internal Combustion Engine, Hybrid or advanced Battery Powered
Work will involve both	Hybrid, LPG or advanced battery power
Public roads	MEWP designed for use in the application
Work in confined space	Secondary guarding, or proactive platform system
THE TERRAIN	
Floor is strong and level	Any MEWP
Floor is strong and sloping	May require stabilizers, outriggers or oscillating chassis, self-leveling chassis
Floor is firm and uneven	May require oscillating axles or tracks
Floor is soft/loose and uneven	May require 4-wheel drive or tracks or pads to spread the load
Ground is sandy and loose	This may not be suitable for a MEWP without use of large pads to prevent sinking
Ground is potentially weak	May require a lightweight MEWP with large pads to spread the load.
ACCESS	
The area is open with easy access	Move on to Training and Supervision
There is a height restriction	Measure maximum height and ensure MEWP can pass below, consider MEWP secondary guarding
There is a width restriction	Measure width and ensure MEWP can fit through and/ or set-up
There is a weight restriction	Determine maximum ground bearing pressure and ensure the MEWP is below this
There are access roads for delivery vehicle	Explain this to the MEWP supplier
Access roads are narrow or challenging	Ensure that supplier is aware of this limitation in advance
We have a safe area for unloading	Inform supplier of location and any site rules
We intend to off load on the highway	Ensure that adequate precautions are taken to ensure safety
We do not have a designated area for unloading	You must determine a specific unload area
THE MEWP	
Maximum Weight of MEWP	Determine maximum ground pressure
Minimum platform size	This will depend on how many people and what materials are required simultaneously
Number of people required in MEWP	How many people are required to carry out the task?
Weight of Tools and Equipment	What tools are required and how much do they weigh?
Is secondary Guarding required	Where a risk of entrapment or crushing exists, this would be a good safety measure
Larger materials to be transported	Secure accessories approved by manufacturer to carry materials – ie pipe rack, glazer package, etc.
THE PEOPLE	
People required for the operation	How many people are needed? Are supervisors trained? Are operators trained on MEWP classification familiarized? Has occupant knowledge been provided?

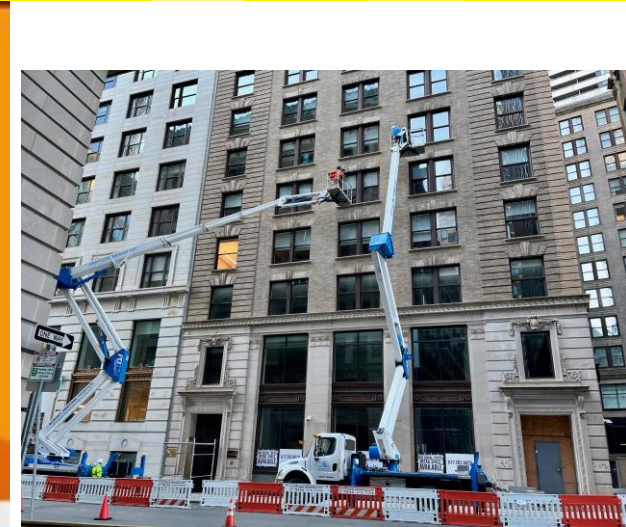
DOWNLOAD form from:
IPAF MEWP Selection Checklist | IPAF



2. Select an Appropriate MEWP

Are your managers qualified to make the decisions?

- Capacity
- Height
- Reach
- Floor capacity
- Site constraints
- Ground conditions
- Task to be performed
- Proximity to public and other workers



2. Select an Appropriate MEWP

Selection, provision and use of a suitable MEWP and work equipment associated with it

- Carrying materials
- Work outside the platform
- Working in confined area
- Tools and PPE
- Perimeter fencing
- Spreader pads
- Lighting
- Two-way communication



ACCESSORIES



PPE



2b. MEWP SELECTION – “and work equipment associated with it”



Lone Worker Motion Sensing

Electrical Safety Helmet



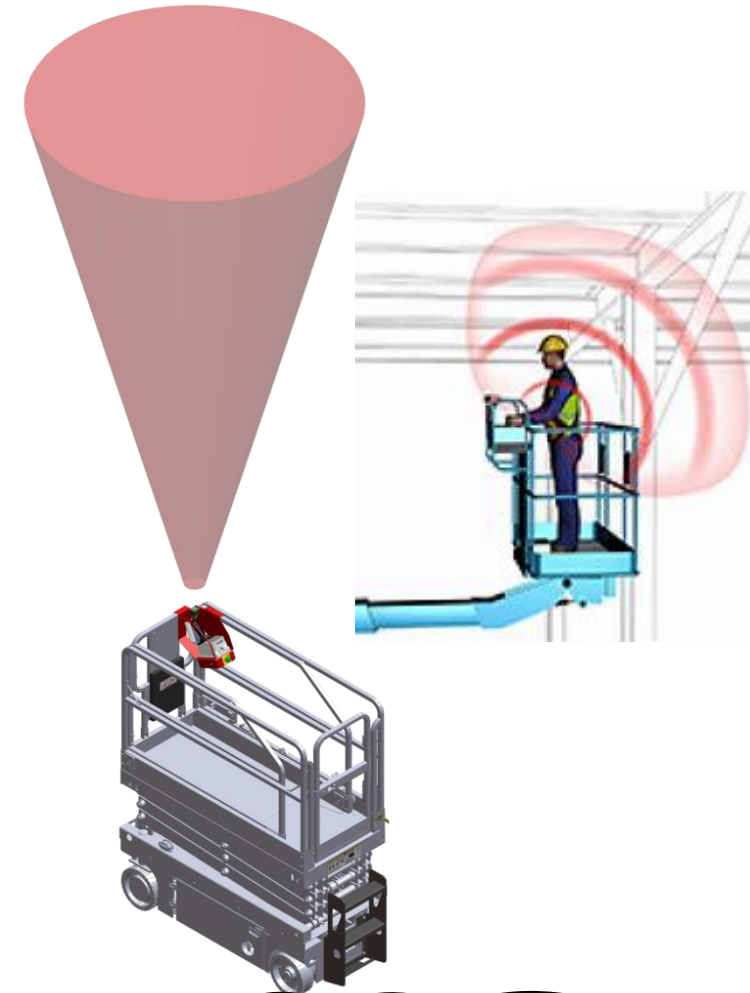
Personal Proximity Alarm



Apps for Remote Driving

ACCESSORIES FOR SCISSOR & BOOM LIFTS

Platform Extensions, Pipe Racks (pipe cradles), Panel Carriers, Welders, Tool Trays and Workstations, Operator Enhancement Accessories, Power in the Platform, etc....



Sensors for Collision

3. Assess RISK Associated w/ TASK



IDENTIFY KNOWN POTENTIAL HAZARDS



OSHA's Form 300 (Rev. 01/2004)
Log of Work-Related Injuries and Illnesses

Year 

U.S. Department of Labor
Occupational Safety and Health Administration

You must record information about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Form approved OMB no. 1218-0176

Establishment name

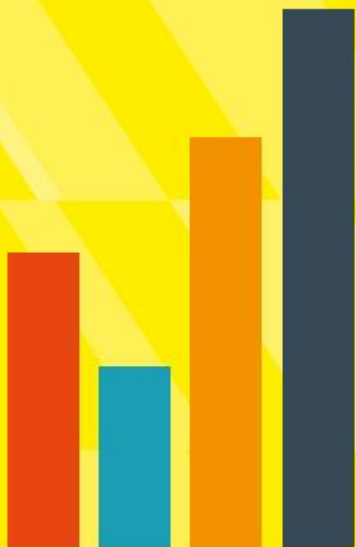
City State

Identify the person				Describe the case		Classify the case											
(A) Case No.	(B) Employee's Name	(C) Job Title (e.g., Welder)	(D) Date of injury or onset of illness (mo./day)	(E) Where the event occurred (e.g. Loading dock north end)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch)	CHECK ONLY ONE box for each case based on the most serious outcome for that case:				Enter the number of days the injured or ill worker was:		Check the "injury" column or choose one type of illness:					
						Death	Days away from work	Remained at work		Away From Work (days)	On job transfer or restriction (days)	(M) Injury	Skin Disorder	Respiratory Condition	Poisoning	Hearing Loss	All other illnesses
						(G)	(H)	Job transfer or restriction	Other recordable cases	(K)	(L)	(1)	(2)	(3)	(4)	(5)	(6)



IPAF GLOBAL SAFETY REPORT 2023

www.ipaf.org/accident



LOST-TIME INCIDENTS (uses person data only)

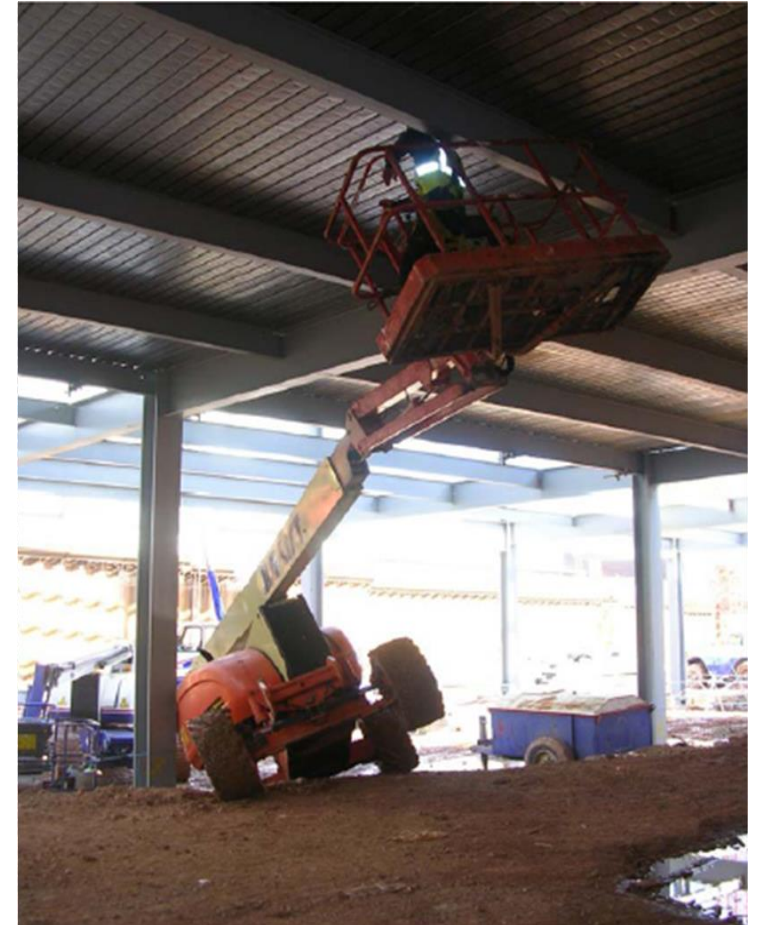
Lost-time incidents by category

The top 12 lost-time incidents by category including all fatalities. Lost-time incidents are incidents where one or more person was injured and as a result the person was unable to work for one or more days.



Accident Analysis

What would have prevented it or reduced the severity?



3. Assessing the RISK



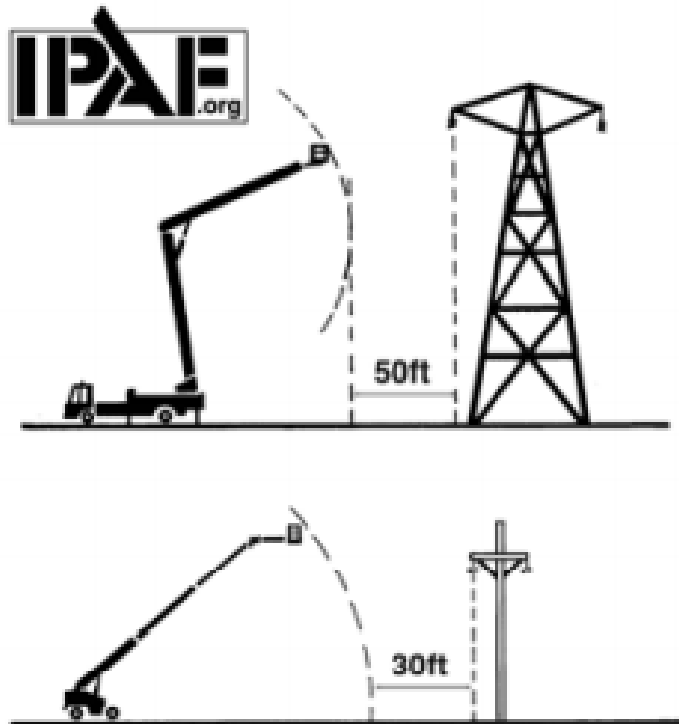
PROBABILITY

RISK ASSESSMENT MATRIX				
SEVERITY \ PROBABILITY	Catastrophic (1)	Critical (2)	Marginal (3)	Negligible (4)
Frequent (A)	High	High	Serious	Medium
Probable (B)	High	High	Serious	Medium
Occasional (C)	High	Serious	Medium	Low
Remote (D)	Serious	Medium	Medium	Low
Improbable (E)	Medium	Medium	Medium	Low
Eliminated (F)	Eliminated			

4. Identify CONTROL MEASURES



10ft Minimum Rule



AWPs are designed to provide a safe means of temporary work at height – but they are only a safe option if their use is planned and managed appropriately.

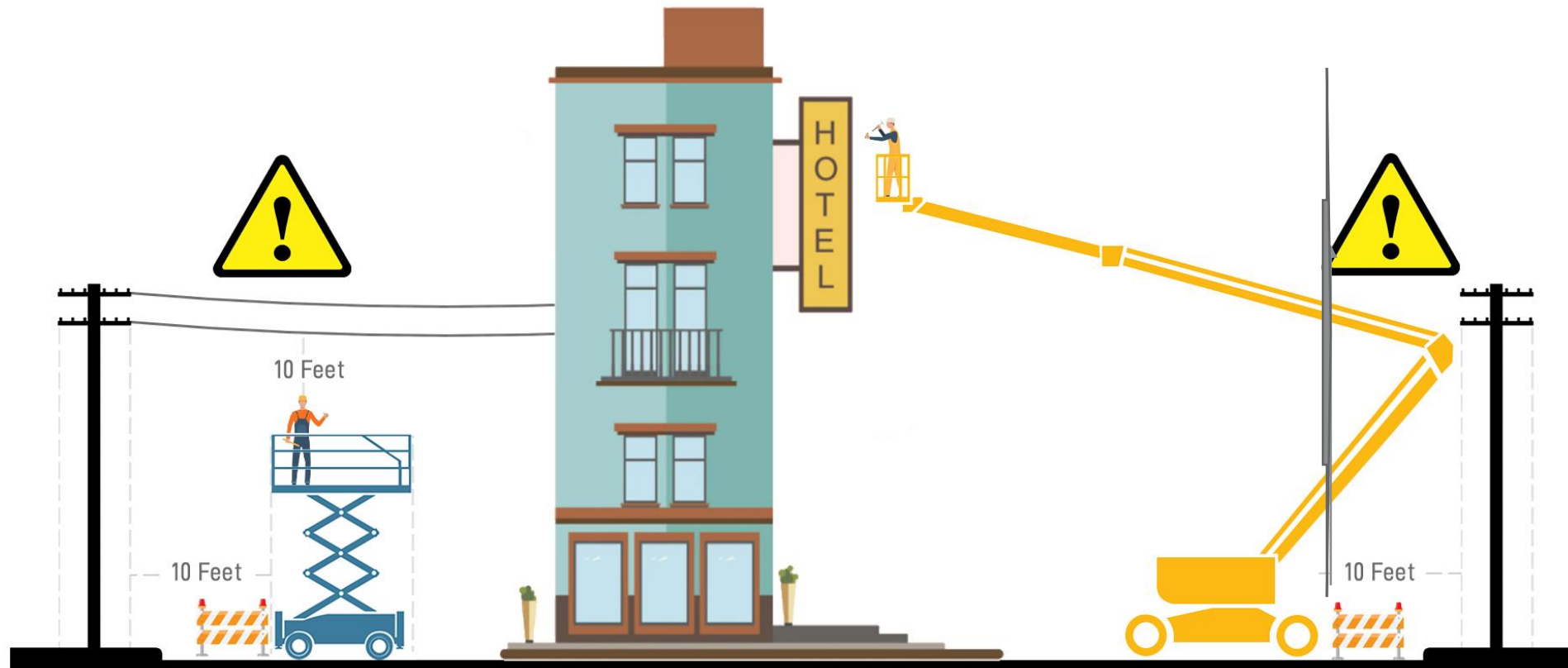
Electrocution is one of the leading hazards with the use of AWP in the US.

Make sure you, and those you are responsible for, apply the '30- and 50-foot plus fully extended boom' rule to ensure that you stay safe.

5. What are the SAFE USE PROCEDURES?



CONTINGENCIES



6. COMMUNICATE the RESULTS



7. RESCUE PLAN



RESCUE PLAN?

ALWAYS PLAN FOR A SAFE RESCUE

MEWP RESCUE PLAN TOOLBOX TALK

WHY IS A RESCUE PLAN IMPORTANT?
Quickly rescuing someone who has become trapped can make a very significant difference to the injuries sustained – it may be the difference between life and death.

WHAT IS A RESCUE PLAN?
A rescue plan is a plan to retrieve the mobile elevating work platform (MEWP) occupants in case of malfunction or emergency:

- MEWP stopped due to no fuel or low battery;
- MEWP malfunction;
- Snagged or trapped platform;
- Platform overload;
- Operator/occupant distress;
- Other emergencies.

WHEN IS A RESCUE PLAN NEEDED?
Health and safety legislation requires a safe system of work for all work activities. A rescue plan must be communicated before any person operates a MEWP at height.
Read and rehearse the rescue plan BEFORE you need it.

WHAT ARE THE FACTORS TO CONSIDER WHILE DESIGNING THE RESCUE PLAN?

- Who will be in the vicinity if a rescue is needed?
- Are ground rescue personnel familiarised and competent in the rescue process? Do they know how to use the ground controls, the auxiliary and emergency descent systems?
- How will you communicate with the MEWP operator when the platform is elevated?
- Can the MEWP operator operate the platform controls?

USEFUL REFERENCES (available at www.ipaf.org)
 → OSHA Guidance on Emergency Rescue Methods and SCOT
 → Rescue of Persons In or Near Powered Access Safety Group 1425 Nov/27.06.10
 → Best Practice guidance for MEWPs – Para 1 & 2
 TEL: 0800 734 6 66 | 70-1400-1170-1 44

WHO NEEDS TO KNOW?
This toolbox talk applies to:

- User (who has control of the use of the MEWP on site);
- Site managers and supervisors where MEWPs are in use;
- MEWP operators/occupants;
- Nominated ground rescue person.

WHAT TO DO NEXT
Brief all personnel on the rescue plan and practice the emergency procedures.

The user must:

- Lead the rescue or nominate in the rescue plan, a ground rescue person that is familiarised and competent with the MEWP;
- Keep the plan readily available and visible;
- Conduct periodic reviews of the rescue plan to check for changes in the worksite, operations, etc.;
- PRACTISE the plan regularly.

The nominated ground rescue person must be:

- Familiarised with the ground and auxiliary descent systems of all the MEWPs covered in the rescue plan;
- Available to conduct rescue whenever MEWPs are in operation.

REMEMBER:
If the rescue plan is not practised it could fail.

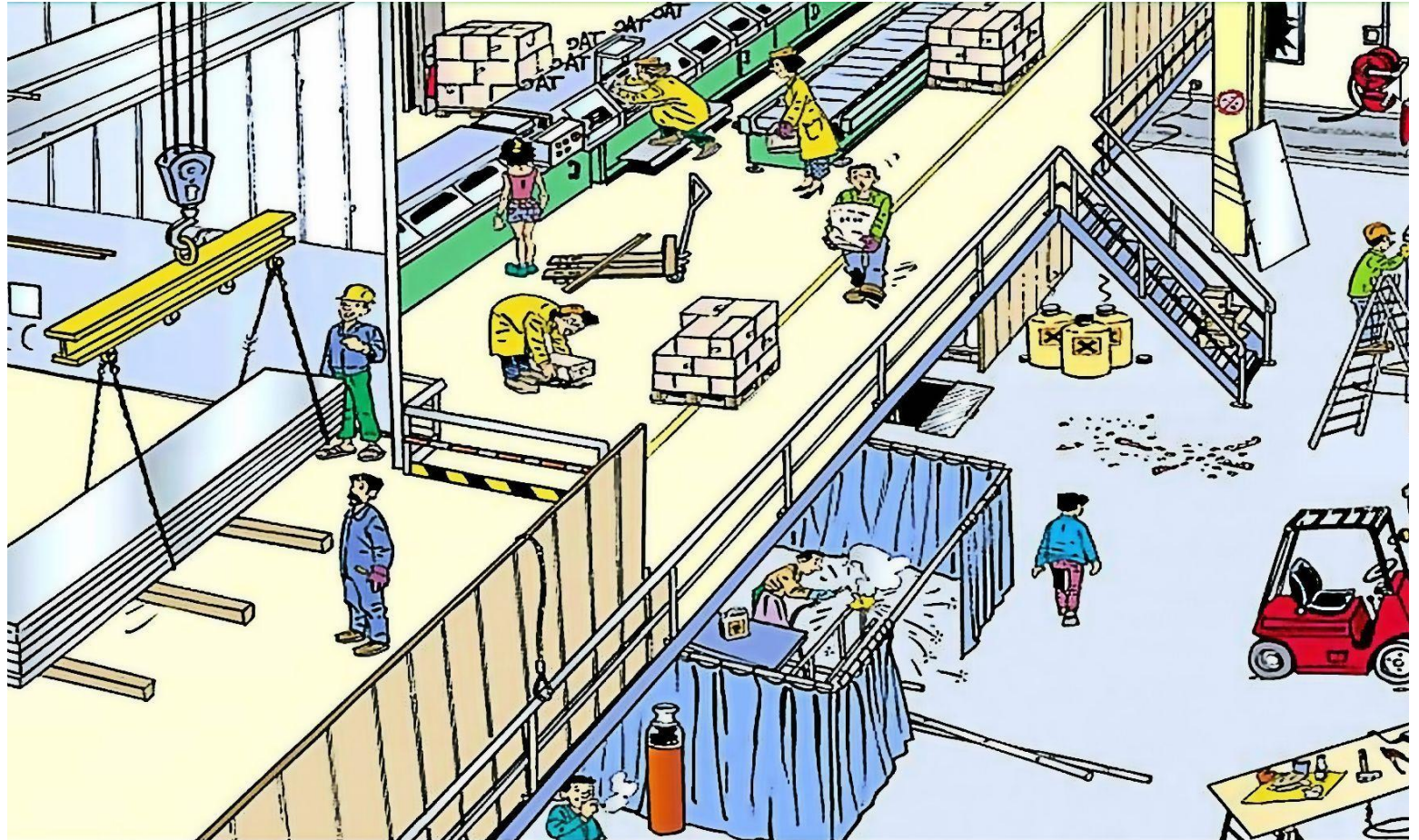


© Can Stock Photo - csp4803982



OPERATOR DAILY Workplace Inspection

Before and during the use of the MEWP, the **user shall ensure and the operator shall perform** a workplace inspection in the area in which the MEWP is used shall be checked for possible hazards, such as but not limited to....



Strangest Accident

What is the strangest MEWP accident you have experienced???

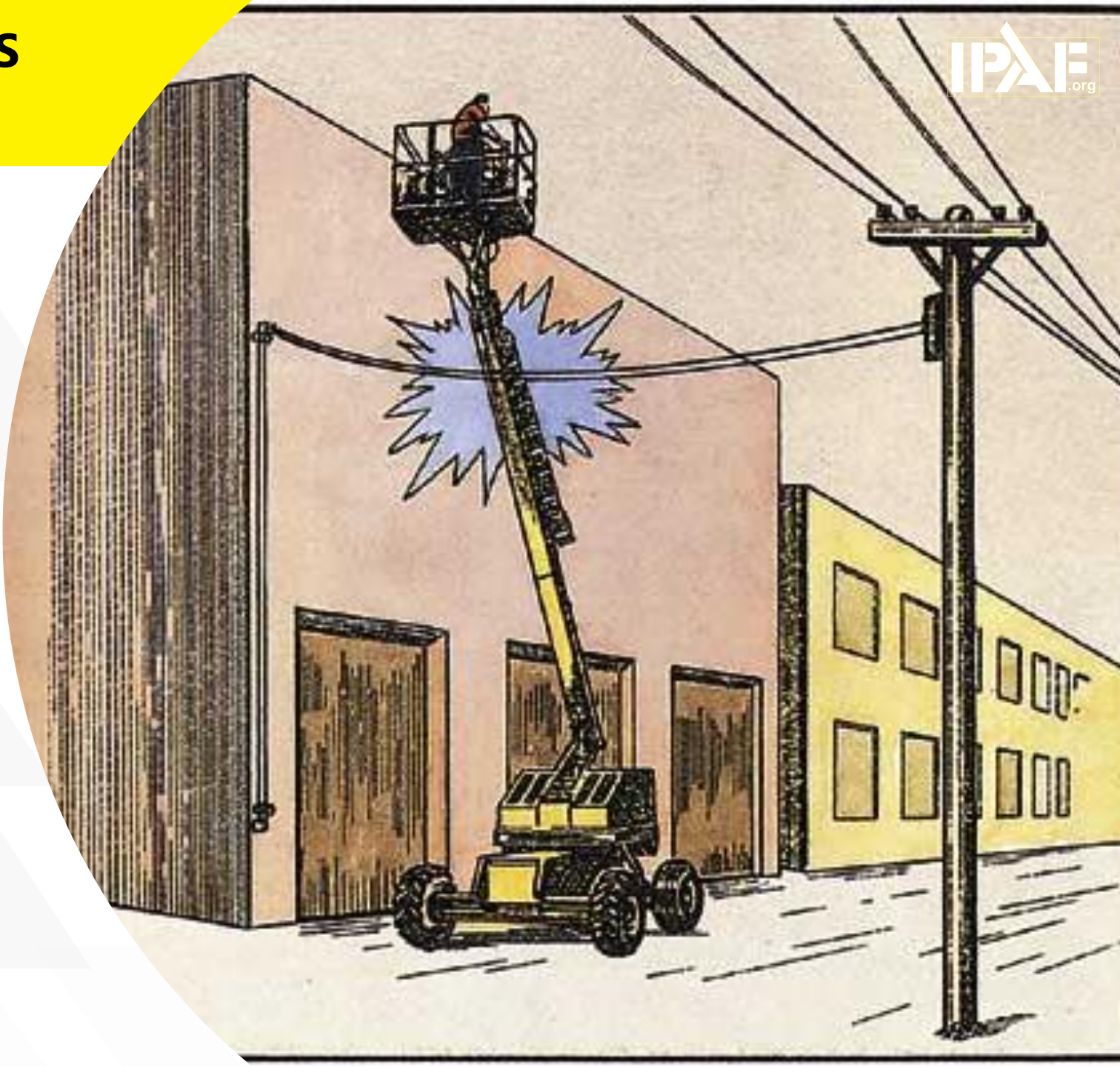
Plane crashed into bucket truck on Pa. Turnpike at I-83

May 3, 2023.



OVERHEAD POWERLINES

WHY do Workers Ignore the
RISK??



FALL PROTECTION

While Working in a MEWP

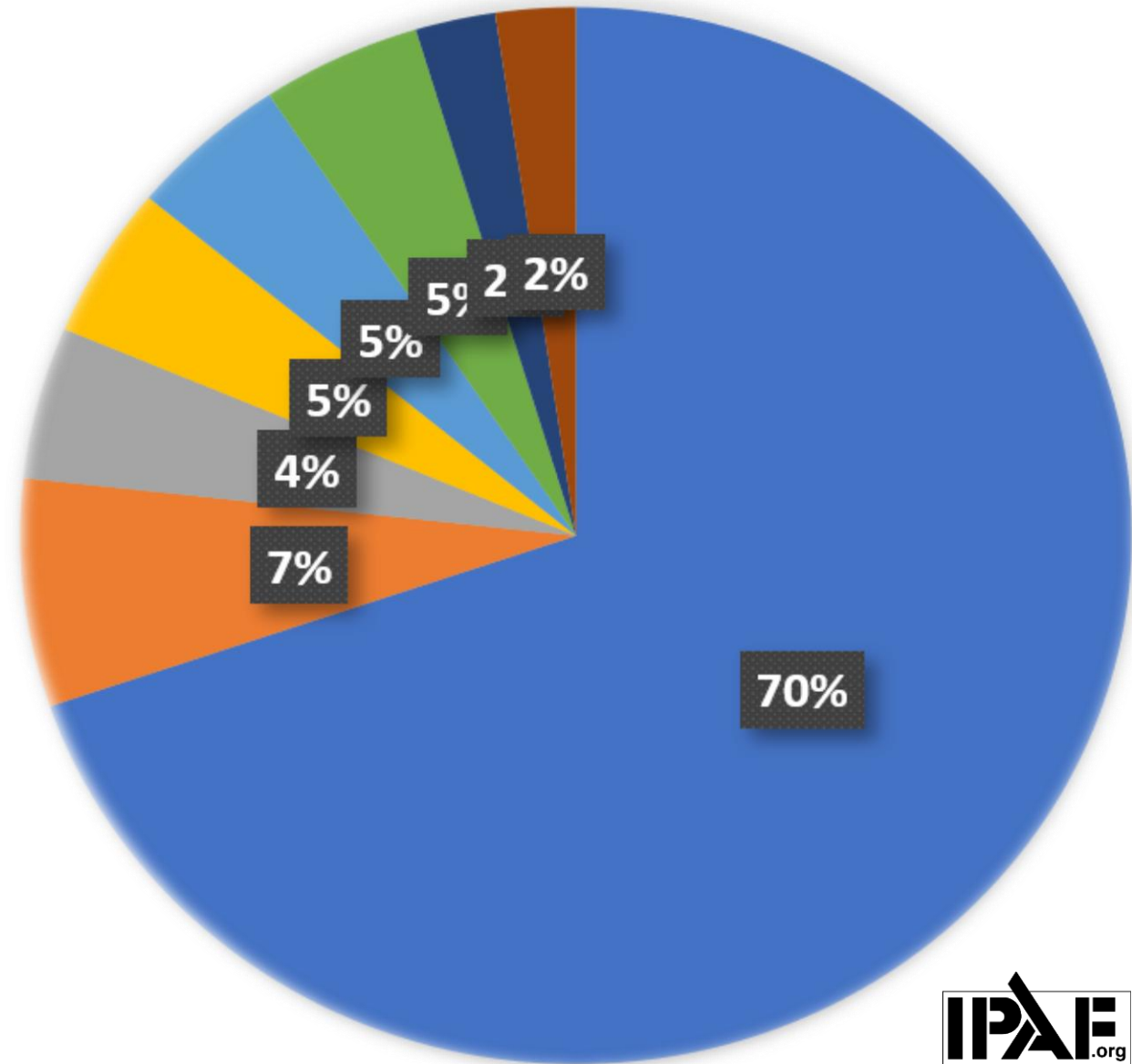
Requirements & Best Practices



IPAF'S TARGETED GLOBAL SAFETY CAMPAIGN 2022 - *DON'T FALL FOR IT!*

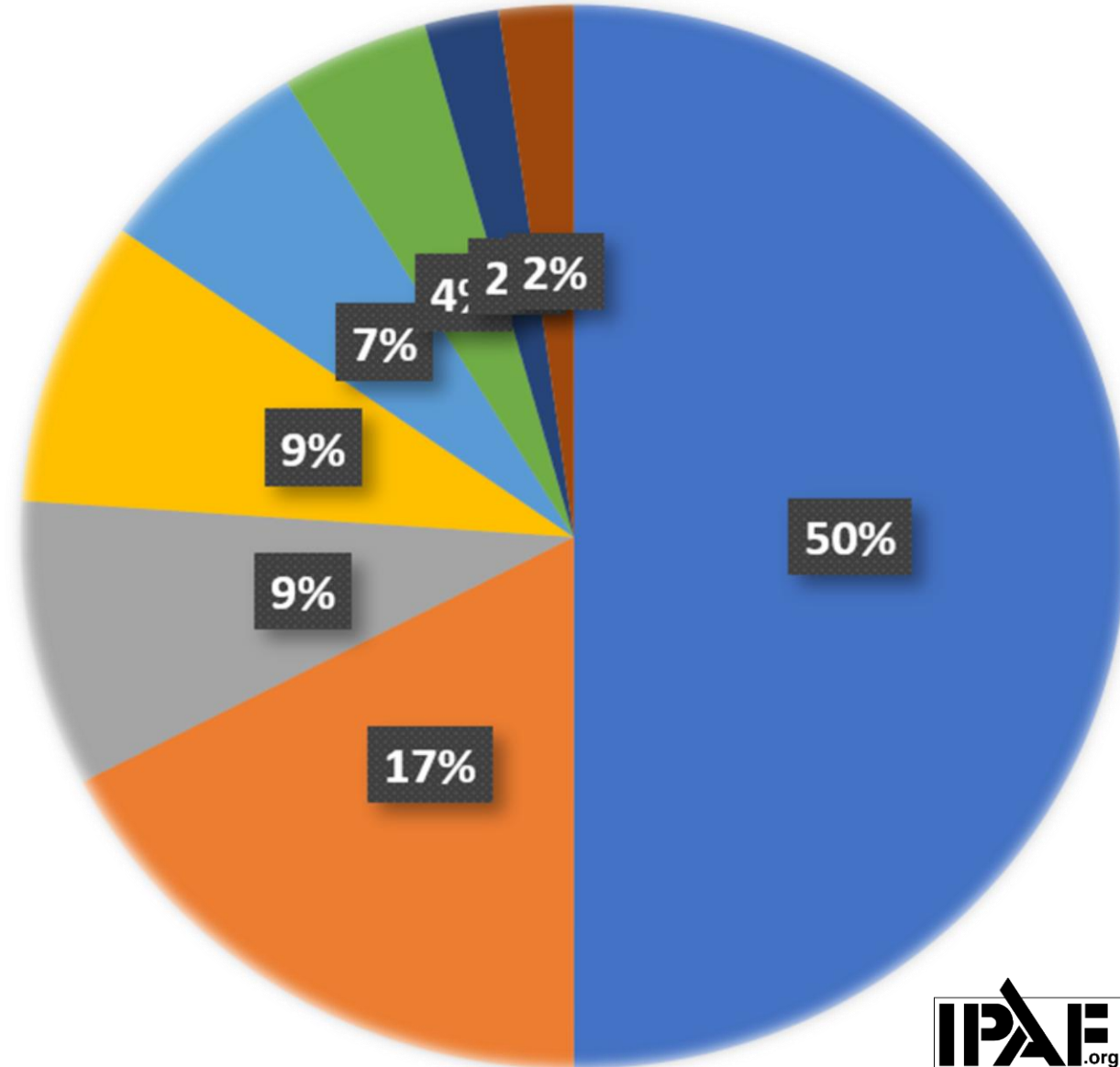


- Over-reaching
- Technical failure
- Violation
- Overturn
- Hit by object
- Standing on guard-rails / toe boards



Why Did They FALL from the Platform?

- Not wearing harness
- Ejection from the platform
- Hit by object
- Exiting / exiting at height
- Overturn / no harness
- Struck by vehicle / machine



GROUP B Boom Lifts Fall Protection



- i. What options are there for fall protection while working in on using the lift as an anchor point?
- ii. Can I use a MEWP as an overhead tie off point when working outside the lift (when no other tie off point is available)?
- i. What fall protection is recommended for all of the different types of MEWPs (bucket trucks, scissor lifts, etc)?
- ii. Please describe when you'd apply fall restraint vs. fall arrest.

GROUP A Vertical Lift – Fall Protection



- i. Is there a date when fall protection will be required in all MEWPs
- ii. Should we be tying off in scissor lifts? Is there a benefit to requiring 100% tie off in all MEWPs?
- iii. Please talk about the requirement for wearing harnesses in the lift (MEWP- Scissor lift). The story is the manufacturers require it. The speak we had last fall did not agree with having workers wear them. One of the study manuals for the CHST had a similar comment. What is the best/right answer?



Promoting the safe and effective
use of powered access

DO NOT USE A MEWP AS AN OVERHEAD ANCHOR POINT

www.ipaf.org



Mobile elevating work platforms (MEWPs) are designed to lift people to a position where they can work at height safely in the platform. MEWPs are not designed to be used as an overhead anchor point. Using them as such is **not recommended**.

MEWPS AS OVERHEAD ANCHOR POINTS IN A FALL- PROTECTION SYSTEM

Mobile elevating work platforms (MEWPs) are designed to lift people to a position where they can conduct temporary work at height safely in the platform. MEWPs are not designed to be used as an overhead anchor point. Using a MEWP as an overhead anchor is **not recommended**.

EXCEPTIONAL CIRCUMSTANCES

There may however be exceptional circumstances in which MEWPs can be used as an overhead anchor point as part of a fall-protection system, for example to assist in the unloading of vehicles.

The user may only use a MEWP as an overhead anchor point **with the express written approval from the MEWP manufacturer and owner**. The user must understand the operational procedures involved and the limits of the specific MEWP before considering undertaking this activity.

Using a MEWP as an overhead anchor as part of a fall-protection system should be considered only after other methods

of preventing falls have been shown not to be practicable and a risk assessment demonstrates it is the safest, most effective means of performing the task.

If intending to use a MEWP as an overhead anchor point, users should ensure ALL specific hazards and risks are thoroughly addressed in their safety procedures and training programmes.

MACHINE SUITABILITY

MEWPs are primarily designed for working from within the confines of the work platform. Lanyards should only be attached to designated anchorage points approved by the MEWP manufacturer.

Where anchorage points are designed for "restraint only", they must not be used as overhead anchor points in fall-arrest systems.

There are **some** MEWPs that have anchorage points designed and tested to be used for both fall-restraint and fall-arrest systems. If the MEWP has such an anchorage, this in itself does not indicate that it is suitable to be used as an overhead anchor. This **must** be verified in writing by the specific MEWP manufacturer prior to being used as an overhead anchor point.

EXITING at HEIGHT

MEWPs are not specifically designed to transfer personnel from one level to another or for leaving the work platform. HOWEVER.....



Situations When....IT CAN BE DONE PROPERLY

- Exiting (or entering) a MEWP at height shall only be permitted through a procedure provided by the manufacturer or qualified person that addresses the following:.....
- Some manufacturers supply fall arrest attachments to facilitate exiting the platform at height.



Manufacturer approved procedure...

EXITING A MEWP PLATFORM AT HEIGHT

Some elevated work areas are not accessible by standard means like stairs, elevators, and more. Sometimes the only way to access these hard-to-reach areas is by using a mobile elevating work platform (MEWP) and stepping out of the basket onto an adjacent surface/structure.



Exiting and re-entering:

Operators must attach a lanyard to an approved adjacent structure anchorage before exiting the platform. Do not exit a platform while the lanyard is still attached to the platform. Note: Genie has separate guidance for using a boom as a fall arrest anchor. Contact Genie to learn more.

When entering the platform, achieve 100% tie-off by attaching one lanyard to the MEWP platform anchor before disconnecting the other lanyard from the adjacent structure anchor. Do not operate the MEWP while a lanyard is attached to the adjacent structure anchor.

What else should you know?

The MEWP shall be cordoned off at the base to adequately warn others, as well as traffic, of the restricted work area.

A copy of an approval letter must always accompany the operator's manual in the weather-resistant storage compartment located on the machine.

Contact Genie to obtain a copy of the letter, along with guidance for using a boom as a fall arrest anchor, at www.GenieLift.com.

How do you do so safely?

Operators must follow all local and governmental regulations regarding exiting a MEWP at height.

Operators must comply with all applicable local, provincial, federal, job site, and manufacturer requirements for the use of personal fall protection equipment (PFPE) on a Genie® MEWP when exiting or entering an elevated platform.

Operators must only enter and exit through the entry chain/gate/sliding midrail provided on Genie MEWP platforms. Operators must not climb on the platform guardrail to enter or exit the platform.

The platform entry shall be positioned as close to the surface as possible prior to entering or exiting the platform but not be more than 12 in (30.5 cm) from the surface.

The operator must achieve 100% tie-off to an approved attachment point when exiting the platform and/or transition to an approved structure that incorporates other approved fall protection measures. "Approved" means compliant with applicable governmental, provincial, local, and job site regulations.

At A Glance: Guidance for Transferring from a MEWP to a Structure

- Enter/exit through the gate only with the platform within 1 ft of a safe and secure structure
- 100% tie-off is also required in this situation utilizing two lanyards
- One lanyard must be attached to the platform with the second lanyard attached to the structure
- The lanyard connected to the platform must not be disconnected until such time as the transfer to the structure is safe and complete

Genie®

QUALITY BY DESIGN

JLG

ASSESSMENT of SUPPORT SURFACE



Access, Preparation and Maintenance of the Site

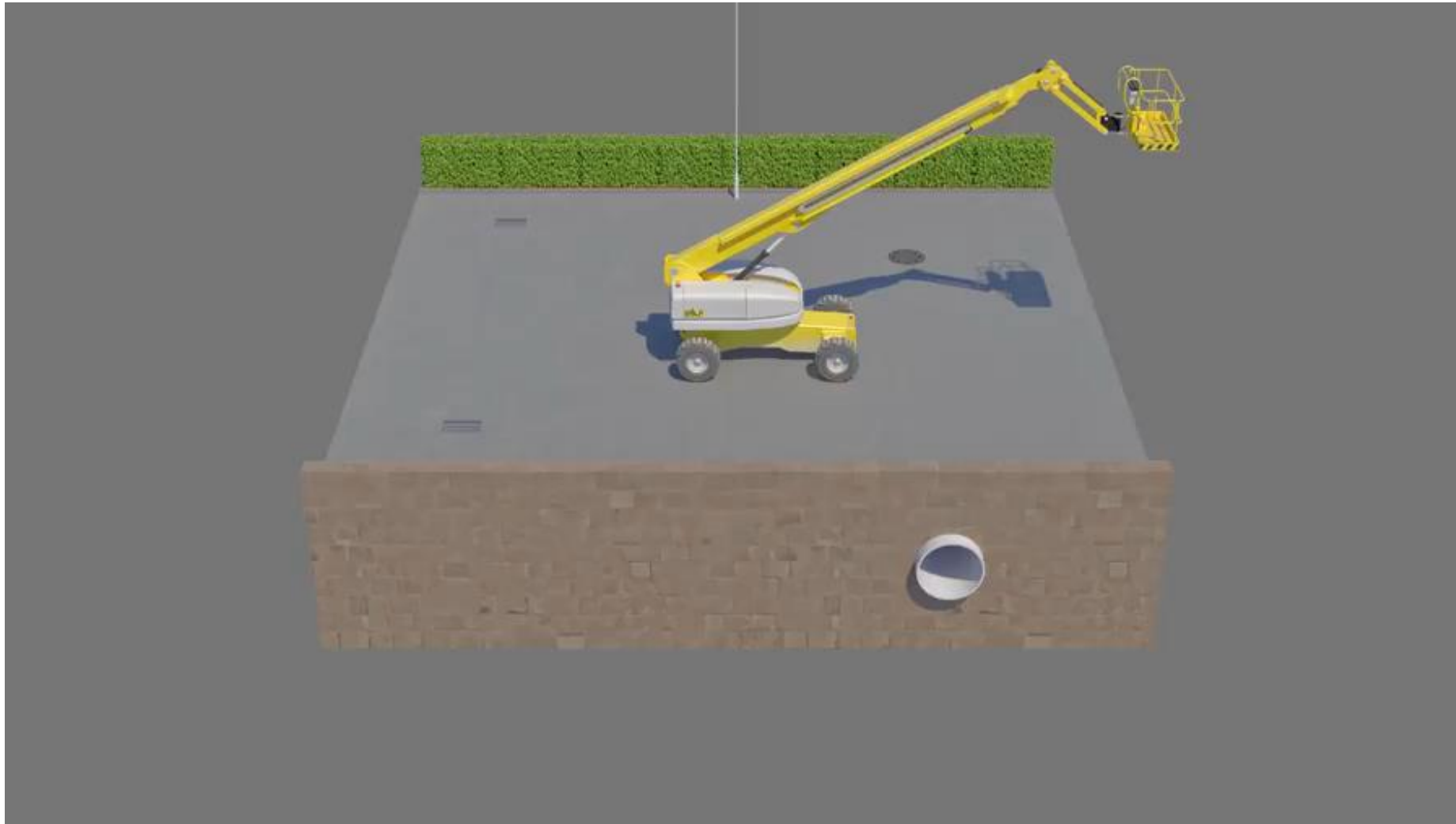
...to include an assessment of the support surface; is it adequate to support the weight of the MEWP?



Be AWARE of ENVIRONMENT CONDITIONS



Sub-surface Voids



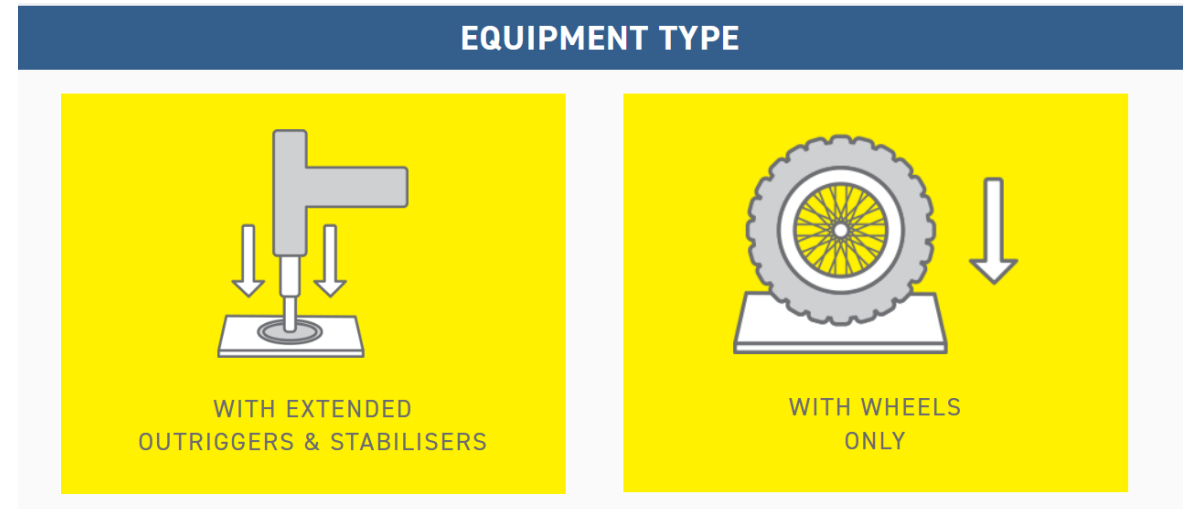
When are outrigger pads Required?

6.8.3.2 Inadequate Outrigger Foundations

Some soil types, moist soils, and soils which have not been compacted as well as some improved surfaces (paved, concrete, compacted, etc.) are not capable of supporting the pressures of outrigger pads. In such cases, the user and operator **shall determine and ensure that some form of foundation or spreader pad is required to reduce the ground pressure to an acceptable level.** Spreader pads shall have sufficient size, stiffness and strength to spread the load over the required area.

It is therefore strongly recommended that suitable spreader pads should always be used under the outrigger feet irrespective of the apparent ground conditions.

[Spreader Pad Calculator | IPAF](#)

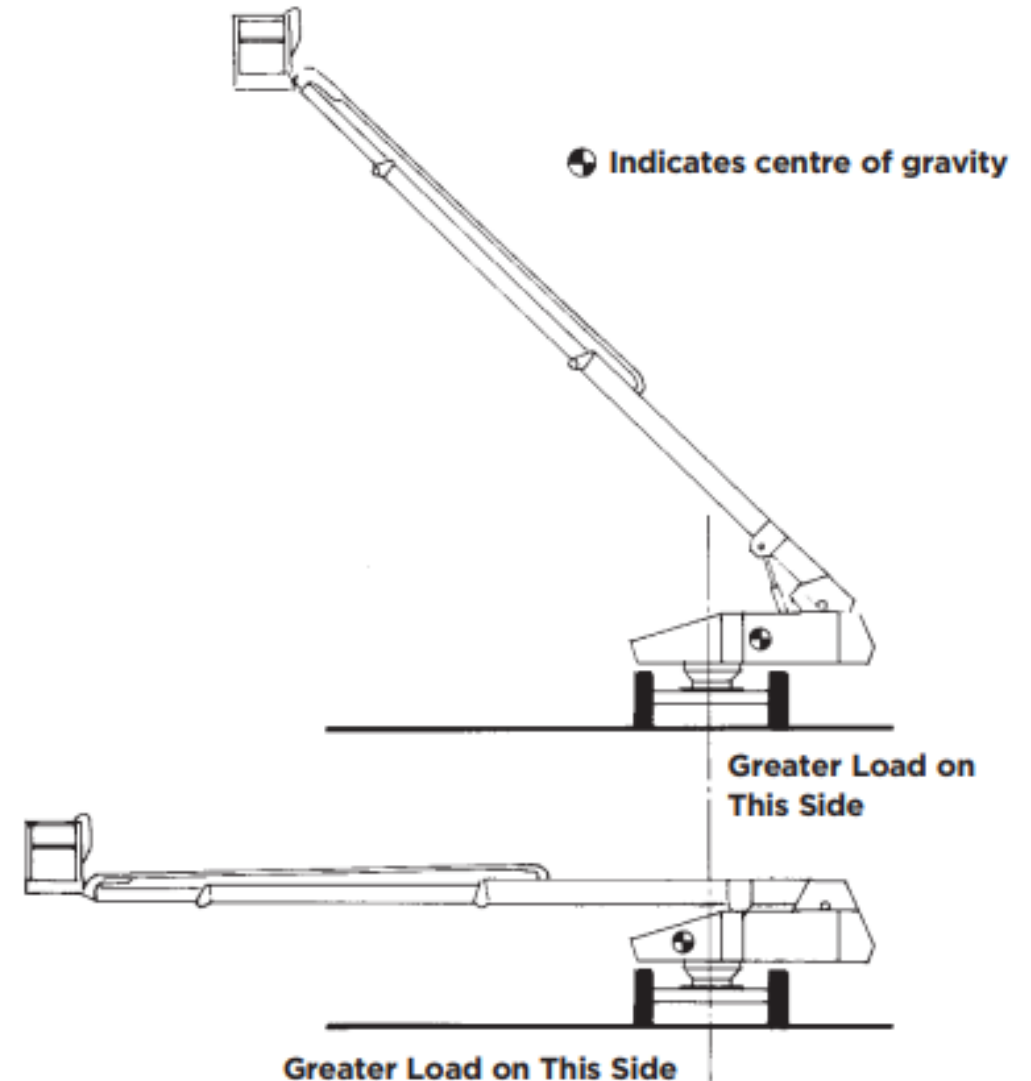


Stabilizers and Spreader Pads



Tipping Axis and Area of Stability

Diagram show how lowering the boom angle affects the center of gravity. In this example, the center of gravity moves towards the platform but remains inside the area of stability.



UNDERSTANDING MEWP STABILITY


 Check the IPAF spreader pad calculator at:
pads.ipaf.org

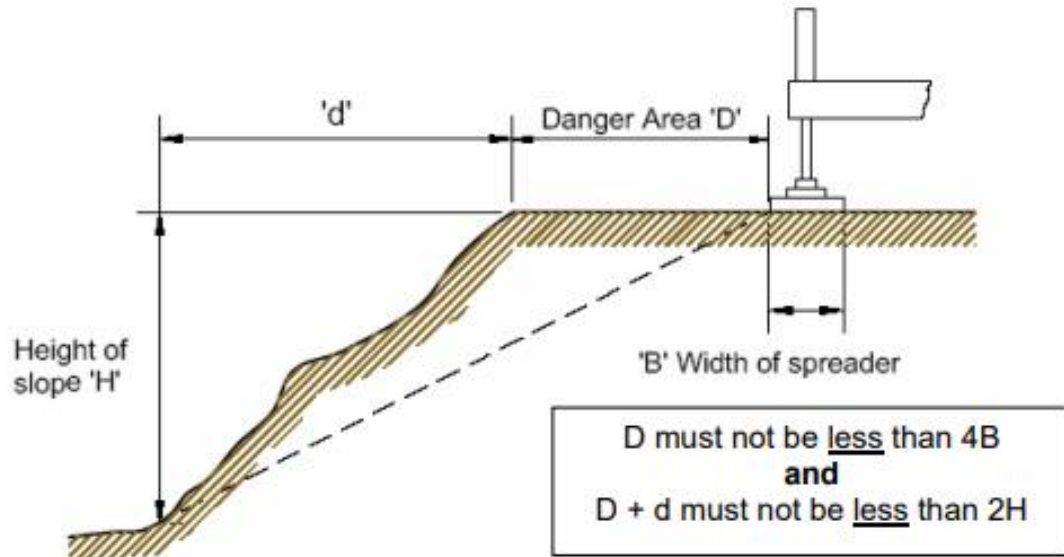
Spread the load!

Spreader plates should always be used with boom-type MEWPs when fully supported on their outriggers.

Note: Spreader plates should be used with all other MEWPs that have outriggers unless a risk assessment indicates they are not necessary.

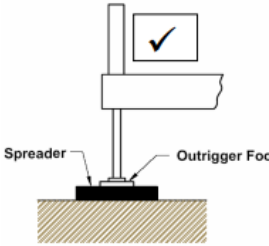
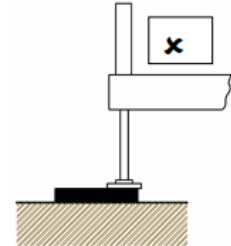
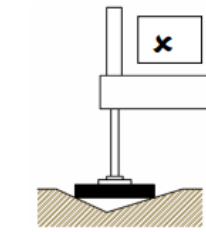
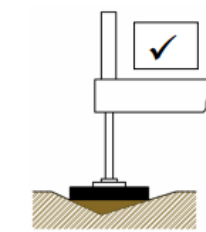
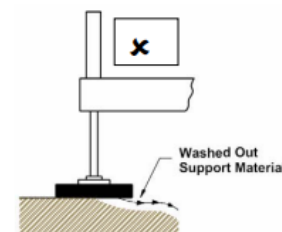
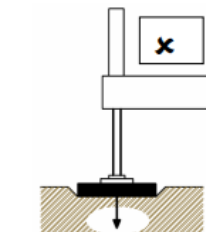


SF-639-0718-1-en-US



Safe Use of MEWPs Guidance on the Assessment of Ground Conditions

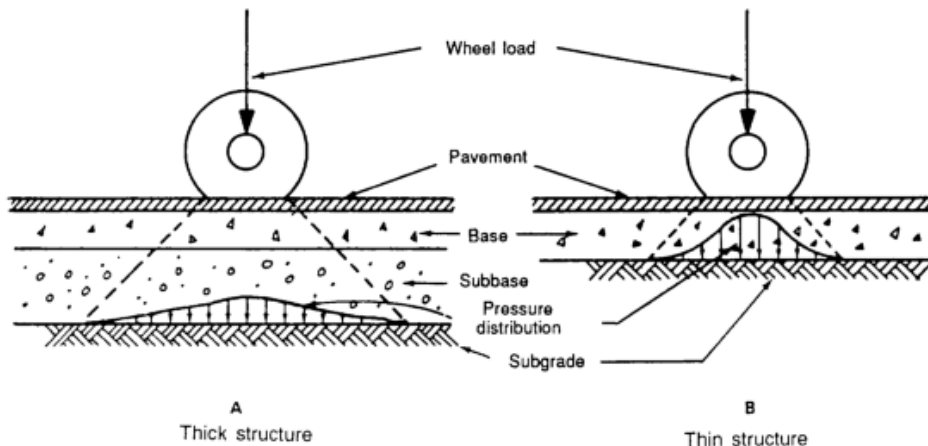
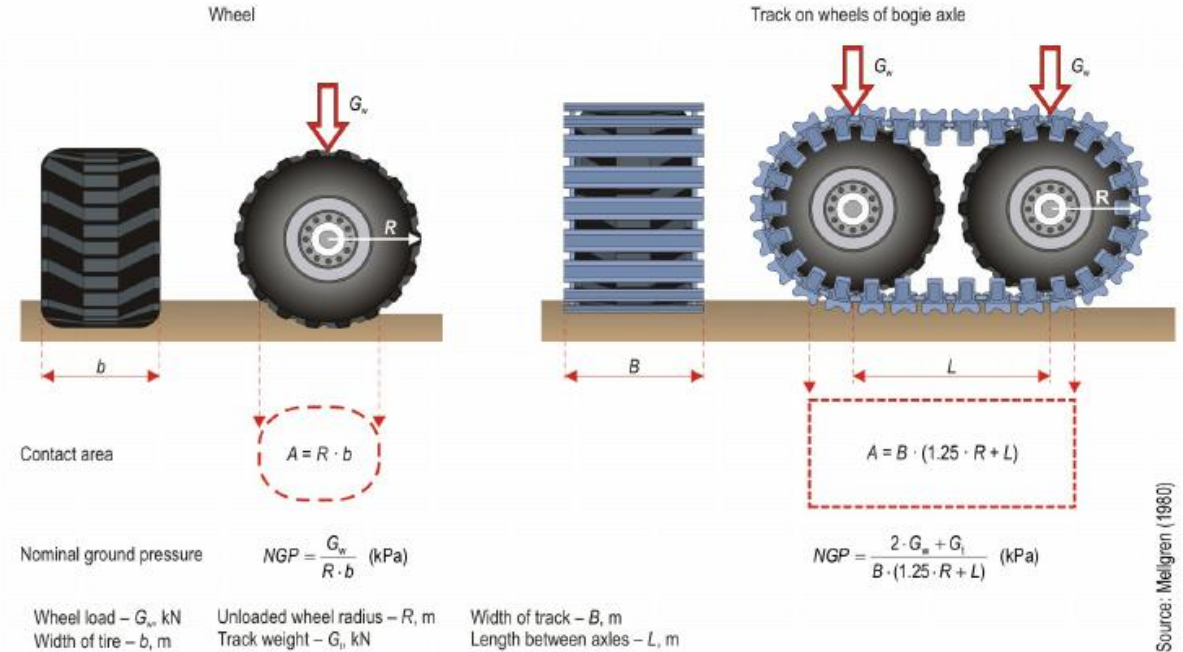
Examples of Good and Bad Practice

 <p>Correct</p>	 <p>Foot not centred on spreader</p>
 <p>Spreader over hollow</p>	 <p>Hollow filled in</p>
 <p>Loose material washed out by rain</p>	 <p>Outrigger positioned over void</p>

UNDERSTANDING MEWP STABILITY

Ground Bearing Pressure

Although it varies based on model, tire size, fill pressure, and track configuration, you can probably make a general statement that the ground bearing pressure on a tracked MEWP is 10% to 20% of the max ground bearing pressure on a wheeled MEWP.

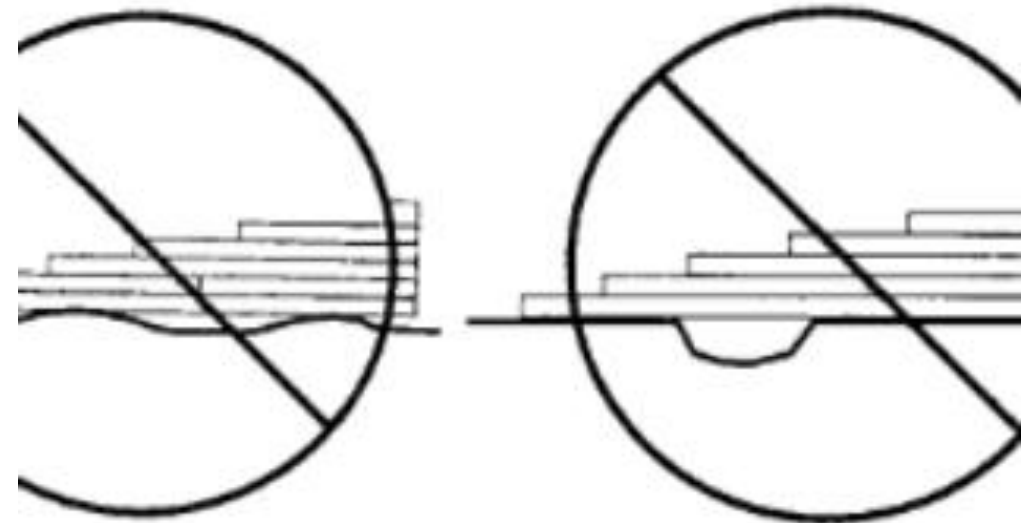


Source: Melgren (1980)

Cribbing

- Do not use cribbing on a surface that is not firm (capable of supporting the weight of the machine without cribbing).
- Do not use cribbing over a hole, depression or bump in the supporting surface.
- Do not crib machines that are on a slope greater than 5° or 9%.
- Do not raise the boom above horizontal unless the machine has been leveled with the cribbing.
- Do not drive the machine on cribbing with the platform raised.

- Do not use cribbing over a hole, depression or bump supporting surface.



- Only crib two wheels on the same side or on one side. Do not use cribbing in two directions.

UNDERSTANDING MEWP GROUND SUPPORT



MAINTENANCE, INSPECTIONS, AND REPAIR



NOV 22 200

MEWP Annual Inspection Decal

Each rental company has different processes for lift inspection and marking of the same. United tags their lifts sometimes with annual, sometimes with monthlies. You can't even find a Sunbelt inspection sticker. What is the **MINIMUM** requirement per OSHA?

*Following the question above, what is the most common practice documentation for rental agencies?

“A means shall be provided on the MEWP to mark the date the last annual inspection was performed and the interval at which inspections are required.”

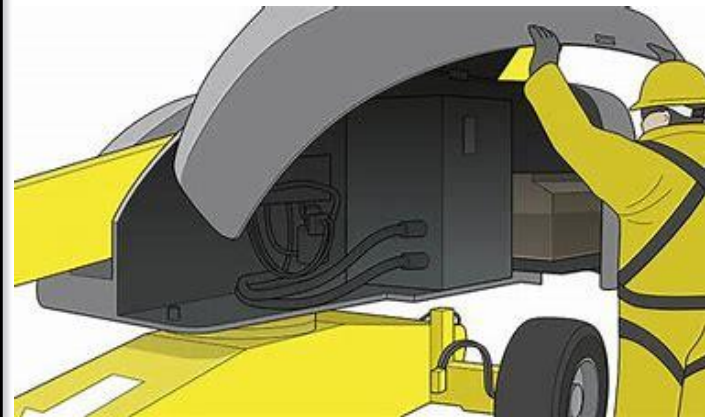


Maintenance, Inspection and Repair

MEWP maintenance including inspection(s) and repairs as required by this standard and by the manufacturer



- Scheduled Maintenance
- Pre-delivery Inspections
- Frequent Inspection
- Annual Inspection
- Pre-start Inspection
- Maintenance and Repair Training
- Maintenance and Repair Safety Precautions
- Replacement Parts
- Safety-related Bulletins



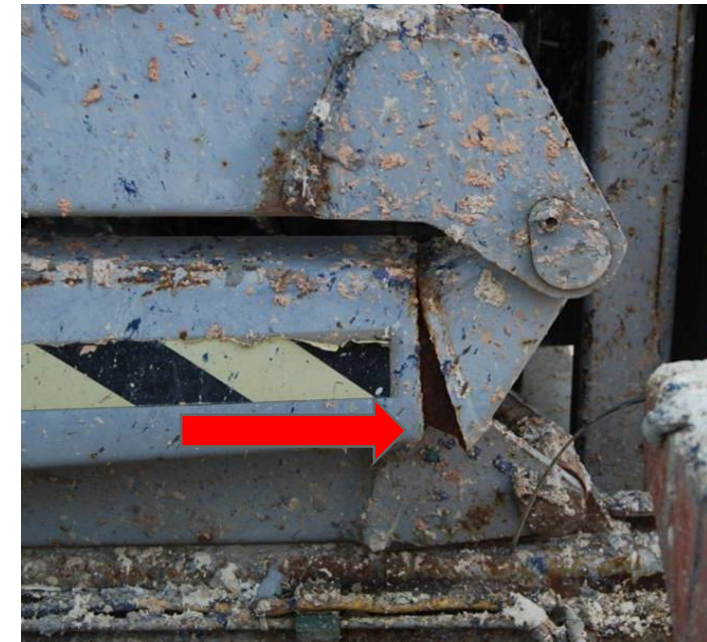
MODIFICATIONS

Modification: Change(s) to a MEWP that affects the operation, stability, safety factors, rated load, or safety of the MEWP in any way.



QUALIFIED PEOPLE INSPECTIONS

- Compliance with Annual inspections
- Daily pre-start inspection
- Ongoing maintenance & repairs by qualified service technicians



MEWP OPERATOR QUALIFICATIONS



MEWP Personnel Qualifications and Training Requirements



Only trained and authorized personnel are allowed to operate and/or occupy the MEWP

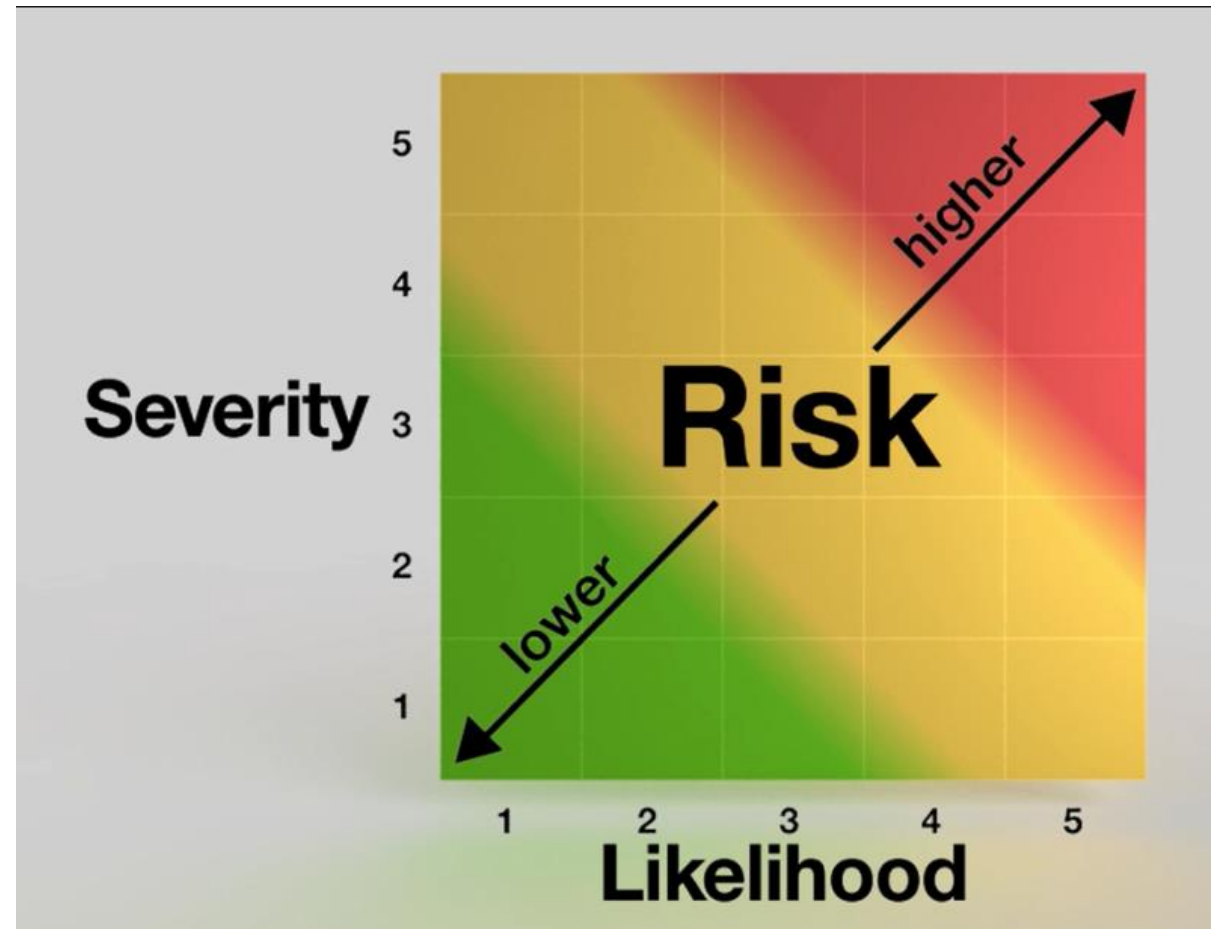
MEWP Personnel Qualifications and Training Requirements

- Operator Qualification and Training
- MEWP Familiarization
- Assessed as Qualified for Task
- Occupant Knowledge
- Manager/Supervisor Training
- Retraining



How do you CHOOSE your MEWP Operator Training?

- How do YOU know if the training you are providing your workers is appropriate?
- What does it mean to be OSHA and ANSI compliant MEWP operator training?
- Who approved training as being compliant?
- What are the requirements to measure compliant training against?
- How can all training in the market be compliant yet taking significantly different times to complete the same training from different sources?
- Do you understand what industry best practice for MEWP operator training requires?



What is OSHA Compliant training for Aerial lifts?

- Aerial lifts are specifically addressed by OSHA at 29 CFR 1926.453
- Section 1926.21(b)(2) requires employers to instruct each employee in the recognition and avoidance of unsafe conditions and the regulations applicable to his work environment.
- Section 1926.556(b)(2)(ii) requires that "only authorized persons shall operate an aerial lift."



Standard Interpretations Oct 23, 1992

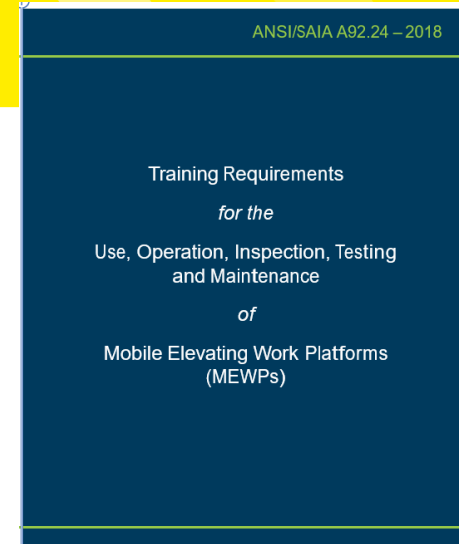
Certification of aerial lift operators.

In the situation where operator capabilities are the issue, OSHA would first determine if the operator was trained and if no training was provided, issue a citation for violating 1926.21(b)(2).

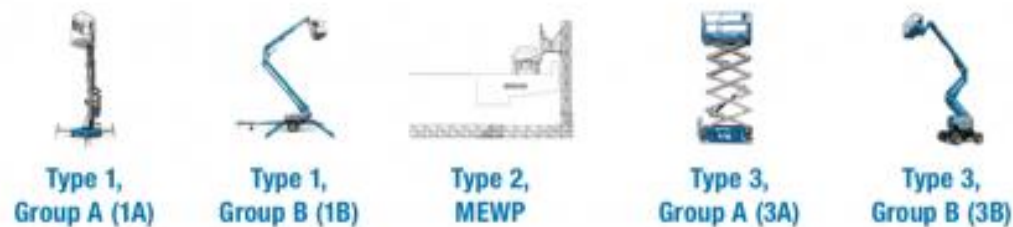
IF training was provided, OSHA would need to use the general duty requirements of paragraph 5(a)(1) of the OSH Act to address any related violations. In so doing, ***OSHA would use the ANSI requirements to help establish what the industry practice is in regard to operator qualifications***

This standard provides:

- methods and guidelines to prepare MEWP training materials
- defines administrative criteria, and
- delivers elements required for proper training and familiarization.



SAIA SCAFFOLD & ACCESS INDUSTRY ASSOCIATION



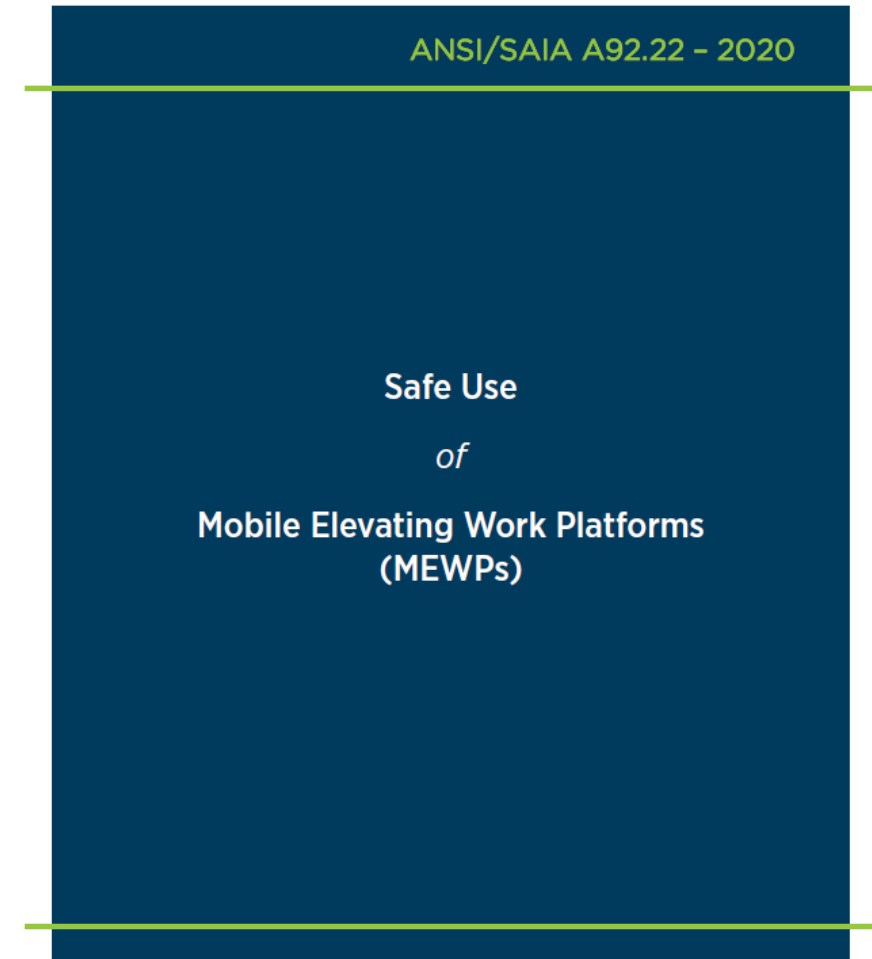
Training required for different MEWP classifications



ANSI STANDARD Requirements for STANDARDIZED TRAINING



- Safe use of a MEWP when training is being administered shall be in compliance with ANSI/SAIA A92.22.
- This training shall be provided to MEWP operators and their supervisors
- MEWP occupants other than operators shall receive instruction
- Familiarization
- Contents of Theory (Classroom/Online) Training
- Contents of Practical (Hands-On) Training
- Administration of Training
- Training Environment
- Testing
- Record Retention



Additional information on ANSI/SAIA A92.22-2020 can be found at www.saiaonline.org/a92



ANSI A92 REQUIRED THEORY CONTENT



- a) the selection of appropriate MEWPs from the various classifications including available options;
- b) the purpose and use of operation manuals, placards and decals, and safety rules;
- c) understanding that operation manuals are an integral part of the MEWP and need to be stored properly in the weather-resistant compartment on the MEWP when not in use;
- d) validation that annual inspection is current on the placard when present on the MEWP;
- e) knowledge of how to perform a pre-start inspection;
- f) responsibilities associated with problems or malfunctions affecting the operation of the MEWP;
- g) knowing and understanding factors affecting stability;
- h) recognition and avoidance of hazards associated with operation;
- i) knowing and understanding workplace inspections and that they must be performed prior to each use;
- j) knowing and understanding wind hazards and weather conditions
- k) thorough understanding of the intended purpose and function of the MEWP controls, including platform, ground, and emergency descent controls;
- l) general knowledge of various MEWPs and features and devices specified by the MEWP manufacturer to include physical characteristics and other machine options;
- m) applicable regulations, standards and safety rules;
- n) use of personal protective equipment (PPE) appropriate to the task, worksite and environment and those required by the manufacturer;
- o) safe traveling practices;
- p) issues associated with transport (if appropriate);
- q) understanding that authorization by the user is required to operate MEWP;
- r) understanding that securing the MEWP from unauthorized use is required;
- s) the requirement for familiarization in addition to training;
- t) understanding of hazardous location(s) (flammable or explosive atmospheres);
- u) warnings and instructions;
- v) familiarity with the requirements of operators;
- w) the dangers associated with high pressure systems;
- x) the responsibility of operator to inform platform occupants of applicable regulations, standards and safety rules and the requirements of section 7.4.
- y) other subjects required by the MEWP manufacturer.



PRACTICAL CONTENT

Under direction and evaluation of the qualified trainer, the trainee shall operate the MEWP for a sufficient period of time to demonstrate proficiency regarding the following:

- ➔ a) walk around and familiarization with MEWP;
- ➔ b) major components – identification and function;
- ➔ c) perform pre-start inspection – carry out daily checks and inspections;
- ➔ d) planning the route of travel and worksite inspection;
- ➔ e) setting the MEWP for work (if applicable);
- ➔ f) operation and function of all controls – completing course tasks;
- ➔ g) parking and securing the MEWP



**Appendix A
(informative)
Example of Knowledge Evaluation Sheet**

To demonstrate competency, each trainee shall show proficiency in both theory (classroom/online) and practical (hands-on). Results of the theory (classroom/online) and practical (hands-on) evaluations shall be documented. (See Appendix A-D for examples.)

TYPE 1, TYPE 2 & TYPE 3 MEWPS

Name of training entity _____ Name of examiner: _____		Training Date: _____
Name of candidate: _____		
MEWP(s) covered: _____		
Mark if acceptable		
PUBLIC SAFETY	Know the manufacturer's obligations	
REGULATIONS, STANDARDS AND TEXTS	Know the user's obligations (training, issuing of the authorization to operate) and the operator's responsibility	
CLASSIFICATION	Know MEWP classifications by category	
TECHNOLOGY	Know the technology of the different elements of the MEWP	
CHARACTERISTICS	As a function of the different <u>categories of</u> MEWP, able to identify the characteristics of each category, the common uses, the advantages and disadvantages	
SAFETY	Know the hazards: overturning (wind, nature of the ground, work platform load) falling, crushing, etc.	
	Know the rules for minimizing the risks of electrocution	
	Know how to determine load restrictions	
	Know the rules for driving, <u>travelling</u> and parking and protection against unauthorized use	
	Know how to <u>select</u> a MEWP depending on the nominal load, working height, nature of work	
	Know the rules for stability and use	
	<u>Know about</u> the safety-related items that have been specified by the manufacturer, and common inspections and maintenance to be carried out	
	Know the orders and movements linked to use of emergency controls	
	Know the function and use of manuals, <u>decals</u> and placards	
	Know how to carry out a pre-start inspection	
Know how to carry out a work-site inspection		

INDUSTRY BEST PRACTICE TRAINING & FAMILIARIZATION



	ANSI General Training	ANSI Familiarization
Location:	Classroom/formal + hands-on/practical	Prior to use (on the machine)
Length:	3-6 hours or more, depending on class size and number of equipment classifications to be covered	15-60 minutes or more
Facilitated by:	Qualified AWP equipment instructor	Qualified person (i.e., driver, salesperson, supervisor or trainer)
Material covered:	<p>ANSI lists 11 required items related to the operation of the equipment, including decals and pre-start inspections.</p> <ul style="list-style-type: none"> ■ Basically, the operator needs to be trained about the safe operation of the specific models present at training. ■ Under the direction of a qualified instructor, the operator needs to demonstrate proficiency in the actual operation of the equipment. 	<p>Covers the:</p> <ul style="list-style-type: none"> ■ Location of manuals as specified by the manufacturer ■ Control functions: How to start the machine, move the machine, activate the deck extensions, steer and use outriggers, etc. ■ Safety devices, including location of the anchorage points and tilt alarms

Statement of Best Practices of General Training and Familiarization for Aerial Work Platform Equipment

Contributed by:

February 2010
S2 10-AWP-10P01



Personal Documentation of MEWP Operator Training



8.5 Personal Documentation of Training

Upon successful completion of the training program, the user shall be furnished with proof of training by the training entity referencing compliance with this standard. Documentation shall be issued with the following information:

- a) name of the entity providing training or retraining;
- b) name of the trainer;
- c) clear identification of the classification of MEWP covered in training;
- d) date of training completion;
- e) name of trainee;
- f) period of time training is valid (if applicable).

NOTE See example of MEWP Operator Certificate in Appendix E.

Appendix E (informative)

MEWP Operator Training: Certificate of Completion — Examples

I the undersigned (Trainer/Evaluator's name and Surname), acting in the capacity of evaluator for

— the company (Corporate name of the company)¹

— the body referred to (Corporate name of the body)¹

after having verified the theoretical and practical knowledge of (Operator's name and forename), issue operator with the

Safe Operating Aptitude Certificate

For the operating of MEWPs of the following classifications:

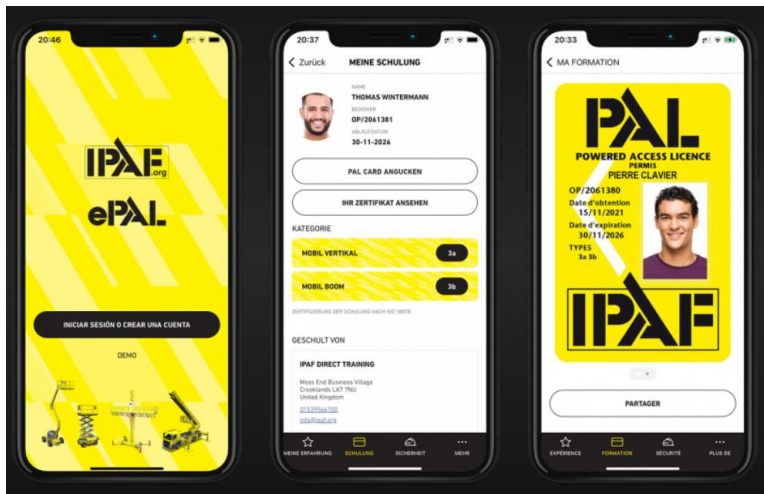
_____	_____
_____	_____
_____	_____

Date: _____

(Signature, stamp)

This certificate of completion is valid for until: _____

¹Delete as appropriate.

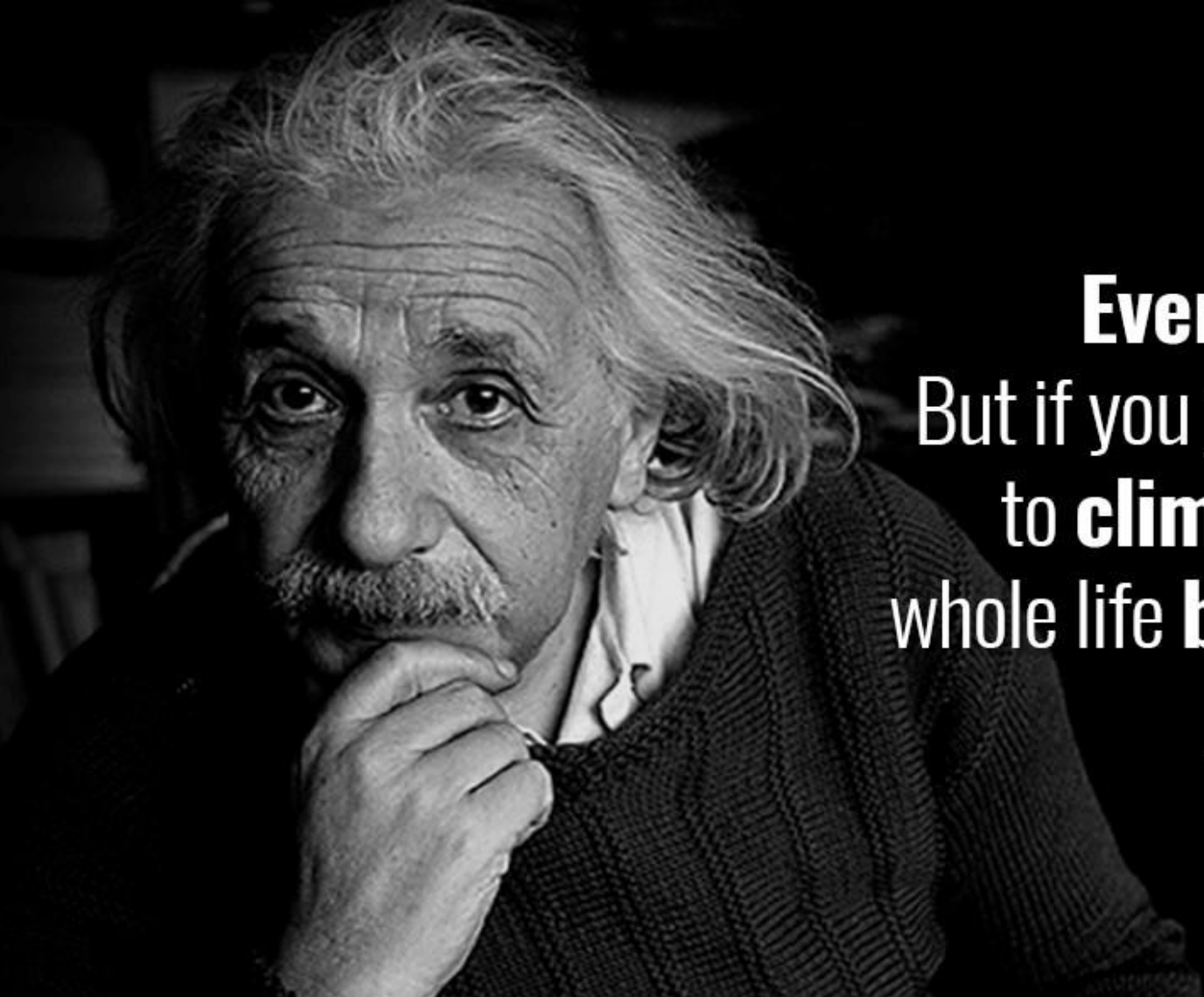


What is Acceptable Training?



- i. Some firms require "proof of lift training". What is the standard for lift training and for documentation? Why can't there be a common standard (Safety/egress, daily inspections, operator instructions) with verification via card/QR code? It is understood that different manufacturer's have different options/procedures, but there has to be a way to standardize lift training topics and providing documentation.
- ii. What constitutes as "familiarization" vs "training"? When is either needed?
- iii. Is there a specific number of classroom and practical training hours required for MEWP training?

What are OPERATOR's RESPONSIBILITIES

A black and white portrait of Albert Einstein, looking thoughtfully at the camera with his hand resting on his chin. The image is set against a dark background within a larger yellow frame.

Everybody is a genius.
But if you judge a **fish** by its ability
to **climb** a tree, it will live its
whole life **believing** that it is stupid.

- Albert Einstein

Goalcast

MIKE ROWE
SAFETY THIRD



MEWP SUPERVISORS

“Person assigned by the user to monitor operator performance and supervise their work”



Site Specific Requirements

- A painting contractor may require covering over MEWP controls that allow access to the controls but protect from overspray
- A site owner may require the use of fall protection on all MEWPs in operation, not just Group B
- No smoking on site or use of cell phones
- Must wear contaminations suits – and clean MEWP prior to leaving site (i.e. asbestos removal)



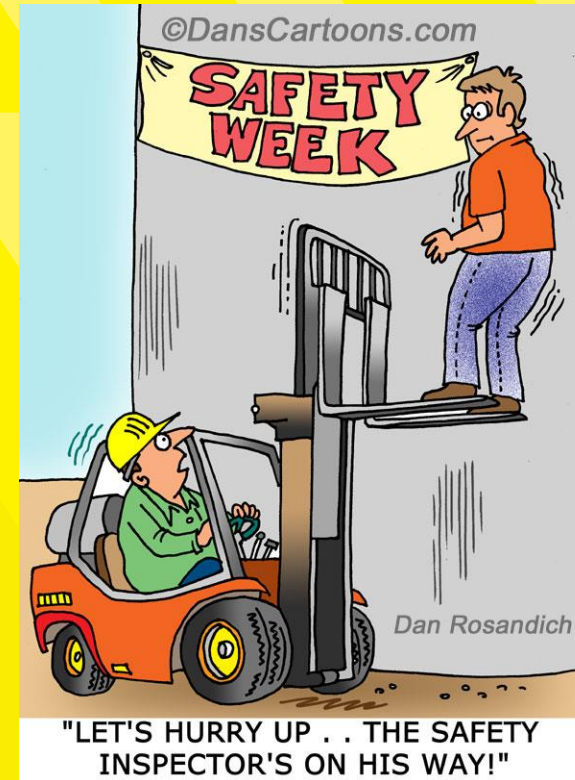
Operator Assessment

- The operator of a MEWP is physically and mentally capable to operate the MEWP safely
- The operator must be trained and familiarized in accordance with industry standards before being authorized to operate a MEWP
- Training by itself does NOT make a person qualified for the task
- The user/employer is responsible to assess if personnel are qualified to perform the task
- The user/employer must evaluate operators on a regular basis to ensure their proficiency as an operator

Frequency of Assessment

The frequency of evaluations is determined by the employer. It must be reasonable and is often once a year. Certain variables can cause these evaluations to be required more frequently, such as:

- Frequency of use
- Complexity of the task
- Changes in task
- Changes in environments
- Changes in equipment
- No less than annually?



Retraining

The required instruction based on the user's observations or evaluations to maintain a previously trained person's status as a qualified operator



The user shall designate a qualified person to monitor, supervise and evaluate operators on a regular basis to ensure their **proficiency**. The evaluation should be accomplished through visual observation, at a minimum, and documented for retention by the user.



RETRAINING



Movie Shorts (7)

- **StreetSmart**

- <https://www.ipaf.org/node/9271>

- **Pre-use Inspection**

- <https://www.ipaf.org/node/9272>

- **Catapult**

- Effect <https://www.ipaf.org/node/9118>

- **Don't fall for it!**

- <https://www.ipaf.org/node/9117>

- **Keep clear of cables**

- <https://www.ipaf.org/node/9116>

- **Unsafe Ground?**

- <https://www.ipaf.org/node/9113>

- **Overhead Obstructions**

- <https://www.ipaf.org/node/9112>



Required Documentation

B SRV/SAIA A52.24-201X

Appendix B
(informative)
Practical Knowledge Evaluation Test for Type 1 MEWPs — Example

TYPE 1 MEWPs		Date: _____	
OBSERVATIONS			
Name of instructor: _____			
Name of trainee: _____			
This trainee is capable of: _____			
Mark if acceptable			
		Vertical	Work platform
		extension	extension
SUITABILITY	Assess the suitability for the work	X	X
VERIFICATION	Visually check the operation of the MEWP	X	X
	Verify that the safety-related items specified by the manufacturer operate correctly	X	X
POSITIONING	Direct the operator and evaluate ability to interpret and maintain the command and communication gestures	X	X
	Position the work platform as a hoist	X	X
	Using the MEWP in a service	X	X
	Using the work platform	X	X
	Adjust the stabilizers	X	X
	Use the MEWP horizontally	X	X
	Position the work platform along a flat vertical surface	X	X
	Position the work platform above a flat surface	X	X
	Position the work platform across the surface	X	X
	Position the work platform below a flat surface	X	X
	Position the work platform across the surface	X	X
	Position the work platform in a restricted space	X	X
EMERGENCY	Put the MEWP into the transport position	X	X
	Stowage of the equipment	X	X
	Accuracy of the measurements	X	X
	Platform: remove measurements (from the ground position)	X	X

NOTE 1 "Vertical work" refers to the vertical movement of the work platform due to movement of the lifting device or to rotation around the pivot of the platform and lifting structure when using and lowering the platform and when stowing the lifting structure.

NOTE 2 "Work platform movement" refers to any movement of the work platform including movements resulting from operation of the lifting structure. This includes horizontal platform movements when the MEWP is in a raised, vertical and horizontal position and movements caused by lowering, non-level ground, uneven and heavy loading from lifting and lowering.

1. Transfer of **ownership**
2. Frequent and annual **inspections**
3. **Pre-delivery preparation, service and repairs**
4. **Training and familiarization**
5. The **operator evaluation** will be accomplished through visual observation, at a minimum, which shall be documented for retention by the user
6. **Training test** - results of the theory (classroom/online) and practical (hands-on) evaluations shall be documented. (See Appendix A-D for examples.)
7. **Person trained**, MEWP classification, entity and person delivering training, familiarization

OCCUPANT KNOWLEDGE



“A basic level of knowledge to work safely on the MEWP”

SAFE CARRYING OF MATERIALS

WALKING THE MEWP

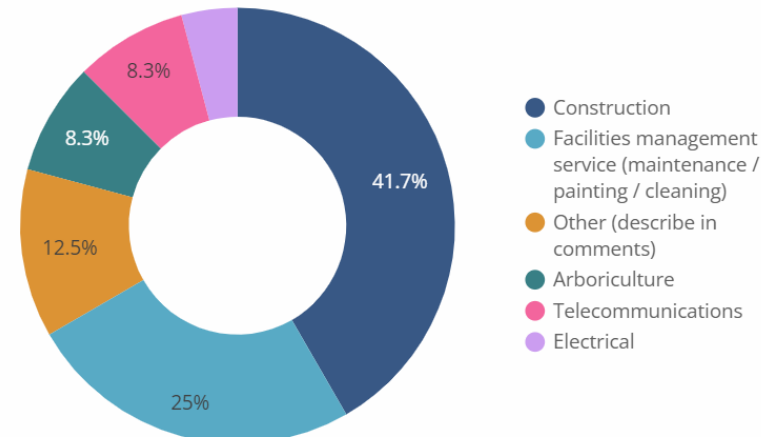


Hit or stuck-by (Roadways)

- IPAF accident reports tell us that MEWPs being hit by vehicles or objects is still commonplace.
 - This can lead to ejection of personnel from the platform.
- Control measures
 - Planning and supervision
 - Segregation
 - Lighting and signage
 - Trained and familiarised operators



Reports by Industry Sector



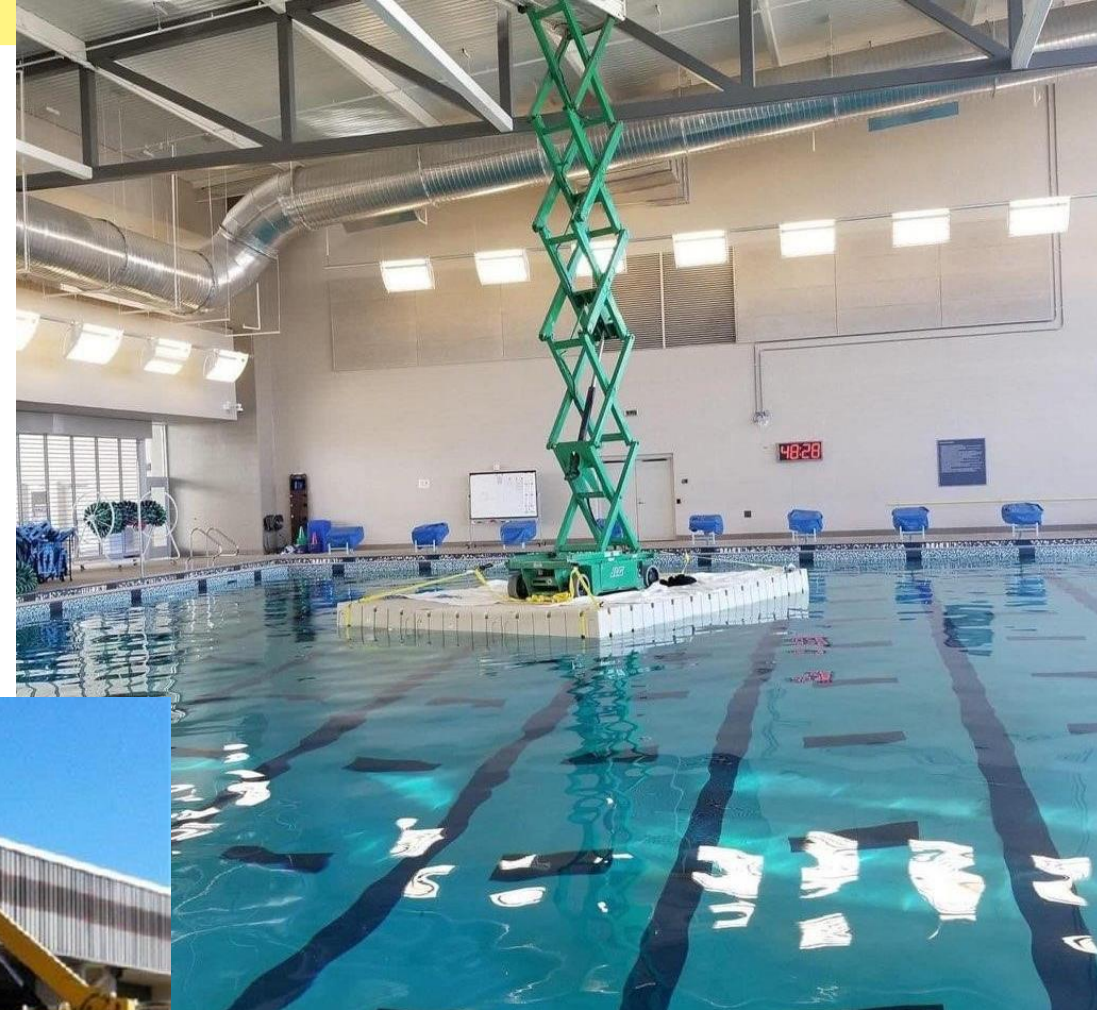
Ground Assessment and Prep



SAFETY PRECAUTIONS

Unusual Operating Support Conditions

Do not operate a MEWP, except for loading and unloading purposes, from a position on trucks, trailers, railway cars, floating vessels, and scaffolds or similar equipment unless the application and the method are approved in writing by the manufacturer/remanufacturer.



Misuse as a Crane

The user shall direct and the operator shall comply with the requirements not to use the MEWP as a crane unless specifically designed for that purpose.



Do not place or attach fixed or overhanging loads to any part of this machine.



- i. Can you lift material along with manpower via MEWP as long as weight req are followed, lift is not altered - just setting material on the deck next to your feet?
- ii. Are 2 lifts, with each person in the lift holding an end of a long panel, allowed to simultaneously lift to height if not resting the material on any guardrail? (assume all is within Weight capacity of machine)

Improper cribbing



Field modifications



Unauthorized Use of the MEWP

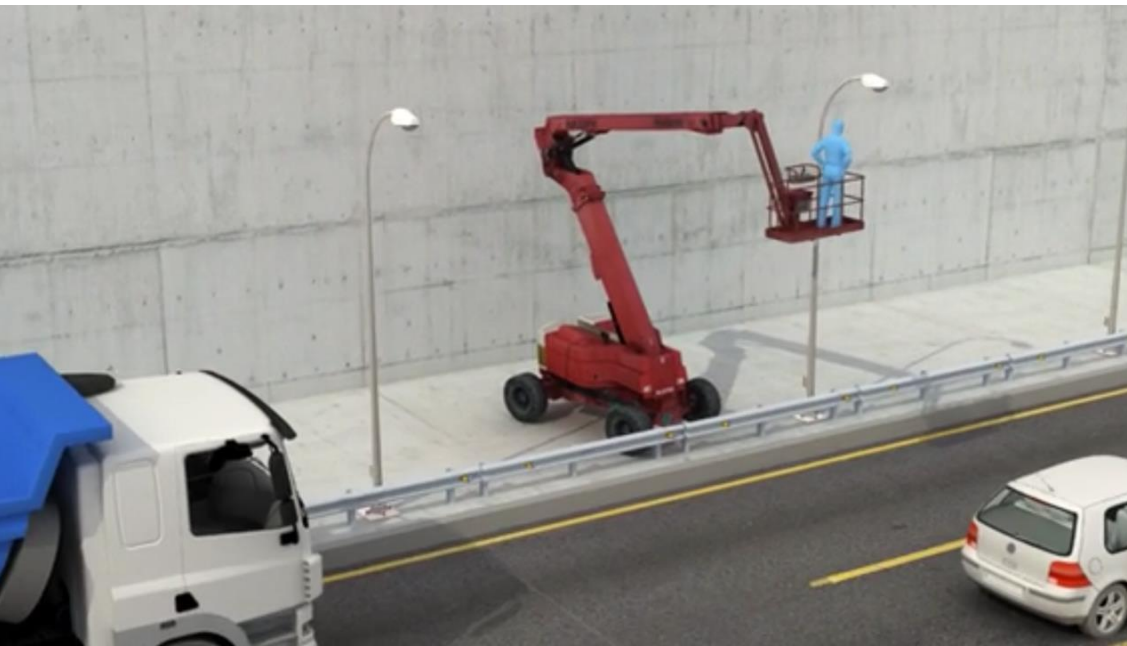


REMOVE KEY



Safety of Others

Safety of Persons not involved in the operation of the MEWP



COMPANY DETAILS

SITE SAFETY

CONSTRUCTION IN PROGRESS



PPE shall be worn

All visitors and contractors must report to the site office

Induction training compulsory

SAFETY PRECAUTION

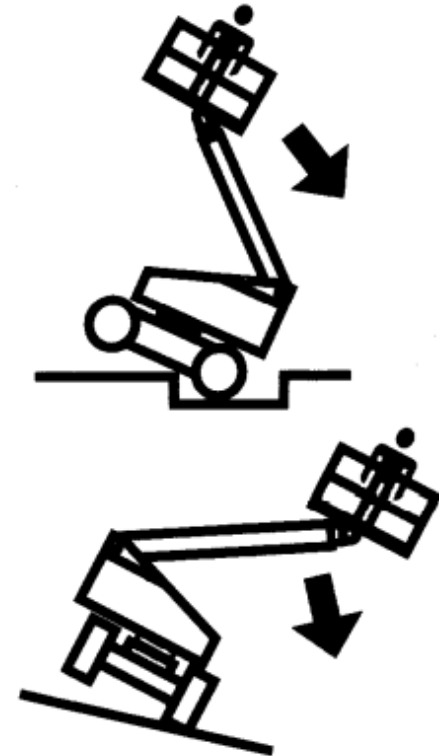
Protect being Struck-by

- Precautions to avoid contact with other moving equipment or vehicles
- Arborist must take precautions from contact with falling trees/limbs
- NEWS>>> February 18, 2022, an employee worked from a scissor lift to install a ceiling radiant heating system in a semi-truck wash bay. While working, the roll up garage door was activated, struck the scissor lift, and caused it to tip over



Driving & Travelling

- Be familiar with the ground surface prior to driving.
- Never exceed the allowable side slope or grade while travelling
- Maintain a clear view of the area continuously in the direction of movement
- Do not elevate the work platform or drive with platform elevated while on sloping, uneven, or soft ground
- Use extreme care and slow speeds while driving in the stowed position across uneven terrain, debris, unstable or slippery surfaces, and near holes and drop-offs



Stunt Driving

Operators are prohibited from stunt driving, horseplay and reckless operations



SAFETY PRECAUTION



Allowable Rated Forces

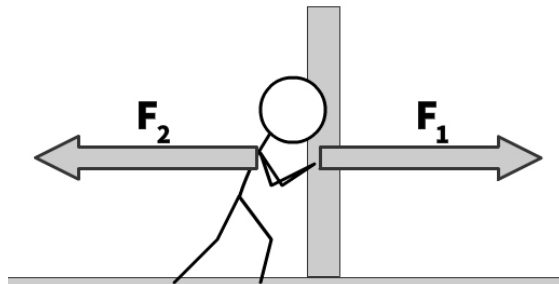
Comply with the requirements to not exceed any of the rated forces allowed by the manufacturer, such as rated horizontal forces and dynamic and impact loads from operations.



Do not push off or pull toward any object outside of the platform.

Maximum allowable side force – ANSI & CSA
150 lbs / 667 N

Newton's Third Law



Forces always Come in Pairs:
You Push on a Wall
the Wall Pushes Back



Side force 400 Newtons

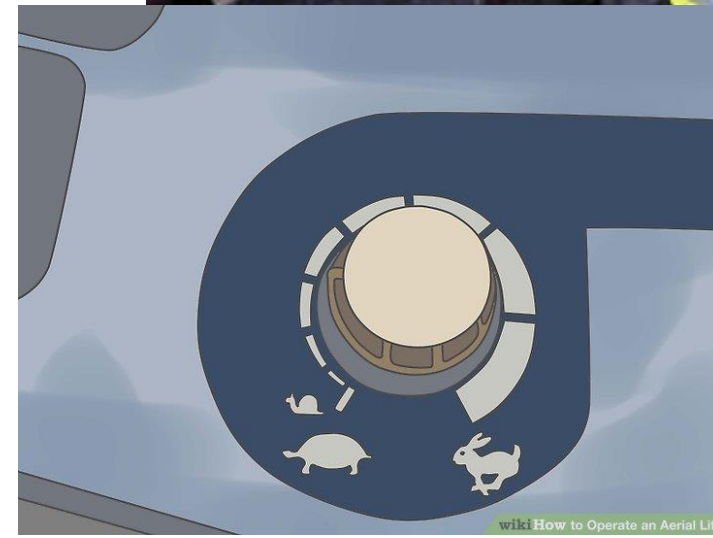
Result: 400 newton = 89.92357724 pound



SAFETY PRECAUTION

Controls Speed appropriate for safe operations

- Travel with the boom/platform positioned at the lowest safe position for the conditions;
- Allow for the platform movements due to the effects when traveling over uneven surfaces, slopes and ramp
- Allow for the distance the work platform may move or MEWP will travel before a complete stop after controls are released or returned to neutral position
- Move at speeds that are appropriate for safe operation, with slow and even pressure



NEW PRODUCTS & SOLUTIONS



Accessorize



ANCHORAGE ALARM



FASTN harness connection

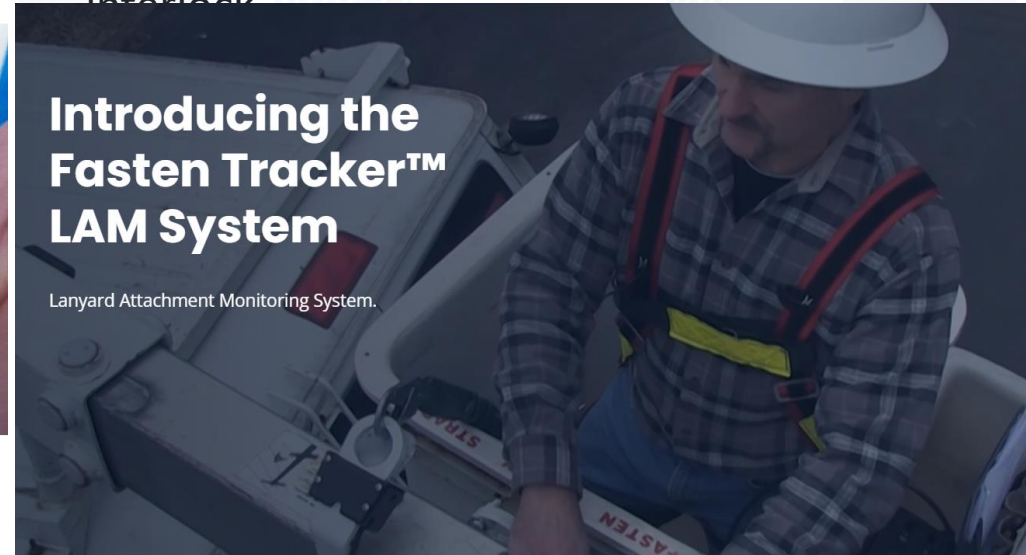


<https://www.altec.com/altec-develops-a-lanyard-detection-system-for-aerial-devices/tps>

Lanyard Alert and Lanyard interlock



Nationwide Platforms unveils new version of its Harness On safety device



Introducing the Fasten Tracker™ LAM System

Lanyard Attachment Monitoring System.

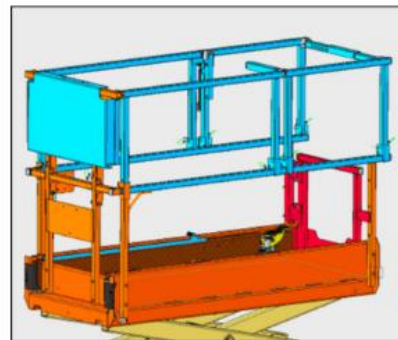
Secondary Guarding



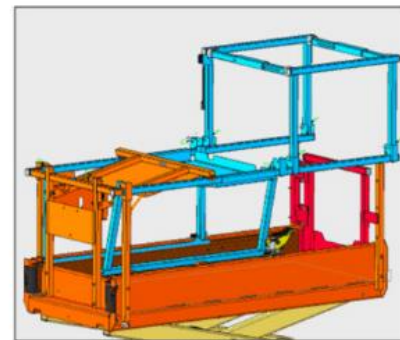
Extra Deck



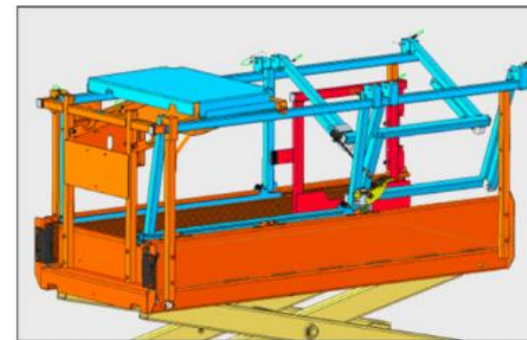
JLG QuikAccess Platform



Fully Raised Rails



Engaged QuikAccess Functionality



Fully Lowered for Transport Through Doorways

Proactive SECONDARY GUARDING





SGLE

SECONDARY GUARDING LIFT ENABLE



SJIII Images shown



KEY FEATURES

- Robust control box shroud provides additional guarding of controls; reducing the risk of unintended actuation.
- Two-handed operation is required to lift, maintaining the operator's body in an upright position and away from the railings; mitigating the risk of entrapment.
- Both joystick and secondary enables must be activated to allow the platform to lift; release of either will stop the function immediately.
- A secondary anti-tamper enable button located on the side of the control box.
- The secondary enable button is not used for lowering the platform or for driving; those functions are joystick enable only.*
- SGLE suitable for vertical masts, SJIII/SJ DC scissors, compact SJ6826/32 RT scissors, and full size SJ9233/43/53 RT & SJ9664 RT scissors.
- Available as a direct factory install or aftermarket accessory.

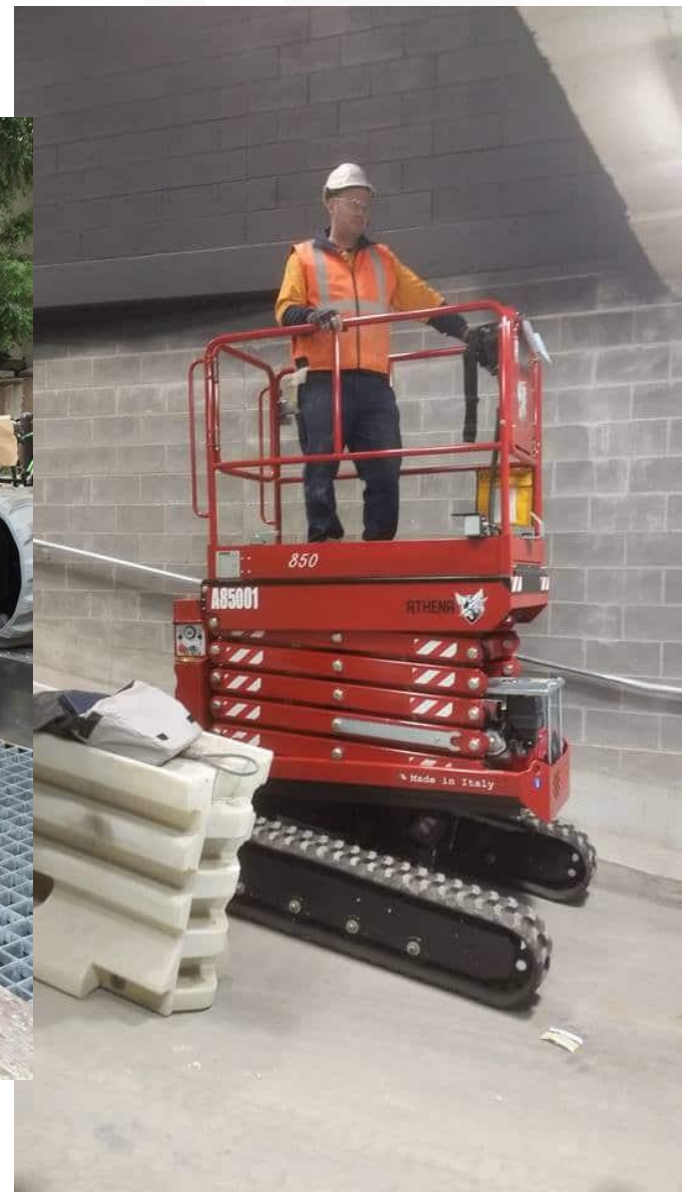
Exiting at Height



...shall only be permitted **through a procedure provided by the manufacturer** or qualified person that addresses the following...



Self-levelling Scissor



Lift CONTROL Orientation



Ergonomic support



**VERTICAL
DRILLING**

