

## MEWP Safe Working Condition

### Keeping the machine in a safe and satisfactory condition when operating in harsh environments

Mobile Elevating Work Platforms (MEWPs) can be used in harsh environments such as – construction sites, tunnels, mining, demolition, ground engineering and other industrial settings. When used in these severe conditions then additional measures must be taken for safe operation.

#### What work environments

The work environment, plus the frequency and severity of use can significantly impact the working condition of the MEWP. It can be exposed to a variety of occupational and environmental hazards that could affect the safe working condition of the machine.

If its shotcreting, demolition, painting, or other severe applications, it is common for a MEWP to be covered in overspray, paint, concrete, slag, excessive dust and other substances or damaged from collision.

This can reduce the function and effectiveness of components critical to the occupants' safety such as operating controls, safety devices, emergency lowering devices, moving parts, instructions and warning decals. It can also conceal areas of damage and inhibit proper visual inspection during operational and maintenance checks.

Without implementing adequate measures, the MEWP can place the occupants and other people at risk of serious injury or death.



## When is it unsafe?

Keeping the MEWP in a satisfactory condition is a fundamental requirement for safe operation, emergency response and maintenance.

The MEWP manufacturer's manuals outline the key operating and maintenance requirements needed to keep MEWPs in a safe and satisfactory condition.

A MEWP that is damaged, covered in debris or exposed to contamination may not function correctly. The consequences can include

- **Incorrect Control and Emergency Function** – Operating and emergency controls may become faulty or fail to return to neutral if exposed to damage, excessive use, obstruction or contamination.
- **Mechanical Failure** - Moving parts can become seized or excessively worn and inhibit critical functions when needed.
- **Overturning or Structural Failure** – MEWPs can become overloaded if carrying occupants or materials which exceed the manufacturer Safe Working Limits, increasing the risk of overturning and the risk of exceeding the permissible stresses resulting in catastrophic structural failure.
- **Unclear instruction, warning or hazard information** - Information critical to understanding the machine operation (e.g. emergency lowering instructions or labels) may become obscured or damaged stopping people from avoiding hazards or understanding how to operate the machine in the event of an emergency.
- **Poor Maintenance** - Debris, dirt and overspray may cover up hydraulic leaks or prevent visual examination for cracks in structural components.

## What you can do

1. Select and use a MEWP that is suitable for the task and environment.
2. Conduct an appropriate risk assessment focusing on what to check for in harsh conditions.
3. Discuss with the machine supplier about selecting any accessories or options that are designed for working in harsh environments, for example cylinder bellows, boom wipers, machine coatings or protective covers.
4. Identify areas that need additional protection.  
Areas to consider include safety devices, upper and ground control panels, slope sensors, secondary guarding systems, platforms, fire extinguishers, warning decals.
5. Cover the machine where overspray is likely. Tape up guardrails and protect the work platform floor to maintain a non-slip surface. Use a protective cover or control box cover for the platform controls, making sure that controls are visible when operating the machine.
6. Contact the MEWP manufacturer before using a large sheet to cover the work platform. This will increase the wind loading and may make the machine unstable.
7. Conduct daily and pre-operation inspections.
8. Check the chassis and wheels/tracks are clean and clear. Debris and slag can be flung up onto wheels and chassis when moving around the worksite.
9. Check the interior of booms and clear out any accumulated debris. Materials inside a boom can result in mechanical damage and equipment failure.
10. Regularly clean off overspray and debris.
11. Clean equipment during and after each shift to minimize the environmental impact.
12. Replace decals on a regular basis. Make sure that all decals, the operator manual, the manufacturer serial plate are visible and legible.

**MEWPs that are deemed to be in an unsafe condition need to be immediately removed from service and tagged with the information recorded in the logbook.**

## What to check for

Refer to the EWPA Good Practice Guide for pre-operation checks and routine inspections. In addition the specific measures for harsh environments are:

1	Compliance	Check logbook, operators manual, and the manufacturer's serial plate are accessible on the MEWP. Check the machine risk assessment and the Job Site Assessment (JSA) are applicable to the work.
2	Safety devices	including the slope sensor, load sensing system, operating envelope limiter, secondary guarding system and control interlocks. These devices ensure that the MEWP is used within its limits. They can become jammed, unreadable or inaccurate if not correctly maintained. Check that these are not tampered with or overridden so the machine can operate beyond its limits. If there is evidence that safety devices have been tampered with or overridden the machine must be tagged out, the operator must not attempt to rectify these faults. Repairs must be carried out by authorised trained service personnel.
3	Emergency equipment and systems	including the emergency lowering systems, lanyard attachment points, fire extinguishers and controlled descent devices. If these are covered in debris or slag these systems may malfunction or equipment become inoperable. Check that these systems are operational and accessible.
4	Safety and warning decals	Check that they are clear and legible.
5	Limit and safety switches	Check intermittent or failed operation due to environment.
6	Operational switches	Check for intermittent operation or failure to return to neutral due to debris and environment. Check the deadman system (functional enable switch) must be activated before movement.
7	Internal boom cables and extension chains	Where cables and ropes are in view check for broken wires, corrosion, protrusion and bird caged wires and damaged fittings. Check the anchor points are not damaged, loose or worn.
8	Inside booms and turntables	Check enclosed areas are clear and not clogged which can lead to corrosion. When checking the boom should be lowered. When checking on scissor lifts use the safety prop. Under no circumstances should the operator attempt to remove debris if the boom is raised or a scissor elevated.
9	Catrac	Check for corrosion and debris.
10	Wear pads	Clear out highly abrasive contaminants.

### What to check for (continued)

11	Pins	Check for cracked or seized pins.
12	Locking Pins	Confirm all locking pins are in place and lock in place. Debris can obstruct the pins from seating correctly.
13	Hydraulic cylinders	Check for ingress of foreign material and corrosion. Check if rods are bent due to concrete build up around the barrel restricting movement.
14	Slew system	Examine for cracks, damage and build-up of debris that can obstruct the slew gears. Failure can occur due to repeated impact of the boom or work platform.
15	Wheel and Tyres	Continuing to use damaged wheels and tyres until the end of the job poses a stability risk. Refer to <i>EWPA Tyre Degradation on MEWPs Guidance</i> .
16	Scissor lift extension deck	Check the deck extends, retracts and locks in place. It should not be blocked due to debris.
17	Entry Gates	Check that the gate closes automatically and opens fully without obstruction. Check hinges have not been forced or bent.
18	Guardrails and access gates	The rails should not be bent or broken.
19	Platform floor and access surfaces	Check surfaces are clear and remain non-slip. Check drain holes are clear.

If you can't keep it clean and maintain it,  
don't use it.

### Safe Use

MEWPs assist in making working at height safer.

They have a proven record in reducing accidents when operated and maintained in a proper working order. Their versatility and adaptability mean that these machines are used in a wide range of applications and many various industries.

### About the EWPA

The EWPA aims to support a safe and strong access industry and deliver a safe and skilled workforce. By promoting best practice and safety we represent the users, owners and manufacturers of MEWPs. We do this by providing safety and technical resources plus training programs including the EWPA Yellow Card. To find out more about the EWPA please visit [www.ewpa.com.au](http://www.ewpa.com.au) or call 02 9998 2222.