

FASET – Tool Box Talk No. 2 (15th September 2014)

MEWP's

10 Ways to Reduce Risk & Emergency Rescue

Guidance for Trained MEWP Operators and Rescuers

Operators of MEWP must at all times be trained and competent.

MEWPs are acknowledged to be the safest and most efficient means of providing temporary access at height for many work activities. MEWP operators, particularly of boom-type MEWPs, have been trapped / crushed between the MEWP platform and an overhead obstruction – in some of these accidents, the operator's body trapped the controls in the "on position" making the crushing worse.

Operation of a MEWP close to an overhead obstruction

What causes the risk?

- Reversing, Slewing or Elevating into an obstruction
- Unexpected movement of the boom near to an obstruction
- Poor ground conditions

What factors increase the risk?

- Poor MEWP route planning
- Poor MEWP selection
- Insufficient MEWP familiarisation
- Uneven ground
- Poor visibility at height
- Distractions when operating MEWP
- Objects placed on the control panel
- High drive speeds, or lack of care...
- Overriding MEWP controls
- Using faulty or poorly maintained MEWPs

Common Rescue Problems

Once trapped, rescue can often be hampered because:

- No-one knows the person is trapped
- No emergency rescue plan
- No key in ground level controls.
- Machine positioned with ground controls against a structure making them inaccessible.
- Lack of familiarity with ground / emergency descent control.
- Overload cell has been activated: This can affect the operation of the controls.
- Emergency stop has been activated.
- Complicated boom recovery manoeuvre

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10 Ways to Reduce the Risk

If you are expected to work close to overhead structures you should ensure that the following issues have been properly addressed:

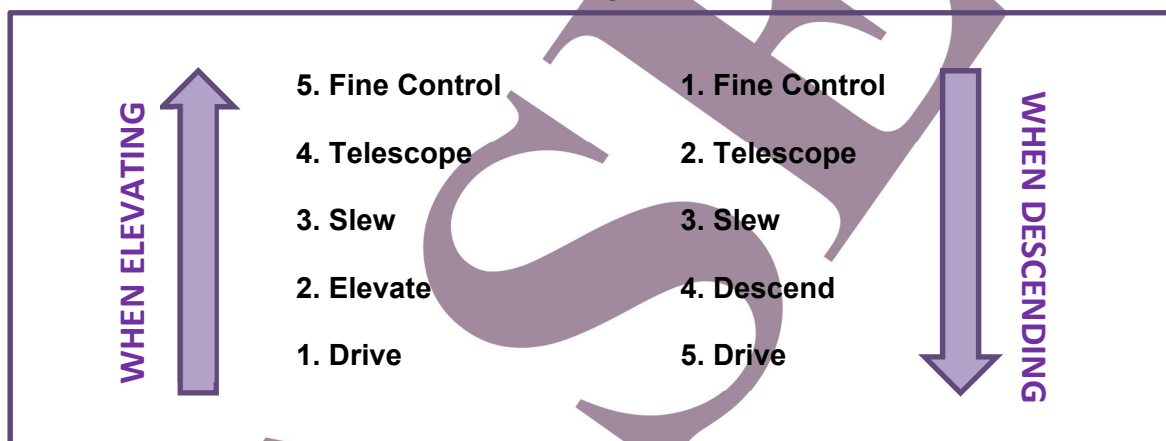
1 - Plan the MEWP route carefully

- Keep a **sensible distance** between the MEWP and any overhead obstruction.
- This distance will need to be greater for a boom-type MEWP being driven at height to allow for the possible “bounce” and “see-saw” effects.

Avoid the drive / elevate / slew controls when close to an obstruction

- Where possible, only the fine-positioning controls of a boom-type MEWP should be used when the MEWP is close to the obstruction.

**Movements should always be slow, deliberate and planned.
The sequence of control use given below is recommended:**



Driving at height should be the last resort

- Driving a boom-type MEWP at height should be the manoeuvre of last resort when positioning the platform close to an overhead obstruction since it can create unexpected movements that make fine adjustment of the platform position difficult to achieve.
- If driving at height is considered the least risk option, booms should be driven at their **slowest speeds** (this is of particular relevance at lower heights, when drive speeds are faster).

2 - Select MEWP carefully

It is important to ensure the MEWP selected is **suitable for the specific manoeuvre to be carried out if working close to an overhead obstruction**. Particular attention should be given to the choice of:

- **Reach** of machine - ideally, it is better not to operate close to the limit of the machine’s “operating envelope”.
- **Clearance** - ensure MEWP and platform are not too large for the spaces in which the machine must be operated.

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3 - Ensure familiarisation is specific

It is essential that the trained operators receive a **familiarisation that is specific to the MEWP they plan to use**, conducted in a low-risk area away from overhead structures to include:

- **Emergency Descent Controls** – how to use the emergency lowering controls, both under power and auxiliary modes including how the controls work *once the load cell has been activated*
- **“Dead Man” Controls (e.g. foot pedals)** – what happens if you remove your foot from the foot pedal and re-insert in a simulated “slumped over the controls” situation?
- **Operating Past the 90 Degree Position:** how do the controls work when a boom-type MEWP is slewed past the 90 degree position?

Personnel on the ground, who are competent to lower the MEWP in an emergency, should undergo familiarisation with the emergency and ground controls and **practice emergency lowering procedures** at regular intervals in accordance with the emergency rescue plan.

4 - Ensure good ground conditions

Ground conditions should be suitable for the safe operation of the machine.

- The ground should where possible be relatively level and compacted with **no obstructions in the operating zone**.
- All trenches, column bases and pits should be identified and protected with barriers.

If ground conditions are poor, do not operate the MEWP.

5 - Ensure good visibility at height

When working inside the building, and at times of low light (e.g. in winter months or in poor weather), **adequate lighting should be provided**.

6 - Minimise distractions

- **Distractions** in the platform/basket, such as mobile phones and trailing cables should be strongly discouraged.
- **Loose materials** on the MEWP handrails or in the basket of the MEWP should be prohibited - use approved containers or materials handling attachments.
- Distractions on the ground should be removed before operating and **exclusion zones** complied with.

7 - Do not obstruct MEWP controls

- **Basket controls:** hand and foot controls should not be obstructed. Tools and materials should not be placed on the MEWP control panel.
- Once in position, **isolate the power** until you need to re-position to reduce the risks of accidental operation.
- **Emergency lowering controls:** should not be obstructed by objects on the ground (e.g. operating MEWP close to a wall with emergency controls facing the wall).

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8 - Slow down, don't crouch over the controls and look!

- Slow drive speeds should be used, particularly when reversing
- Crouching over the controls significantly reduces the operator's margin of safety
- Scan the area for obstructions both before and during MEWP operation
- Do not lean over the guard rails while operating the MEWP

9 - Do not override the MEWP controls or use faulty MEWPs

- All MEWPs on site must have a valid 6 month thorough examination certificate
- Always perform and record daily checks
- Report all faults
- Any faults must be rectified before using MEWP
- Do not override the controls

10 - Rehearse rescue procedure

Ensure ground key available or appoint a ground rescue person:

- At least one designated ground rescue person should be appointed who knows the rescue procedure and has been familiarised with the MEWP being used

Consider how to raise the alarm.

- A system must be in place to identify that an operator may have become trapped.
- This needs very careful consideration if the operator cannot be seen from the ground.

Decide who should effect the rescue and how.

- This depends on the complexity of the operation and therefore the relative risk of a rescue from the ground compared to the risk of an operator.
- It also depends on how the controls for the specific MEWP being used function if the load cell has been activated.

The order of priority should be:

- 1. Operator:** competent people in the basket should try to rescue themselves.
- 2. Ground staff:** if visibility and understanding of situation from the ground are good, ground staff should effect a rescue using the ground controls in the following order:
 - **Auxiliary power** at first which gives the slowest and most controlled manoeuvre of the boom until it is obvious that the basket is clear of any obstructions at height.
 - **Powered descent:** once clear of obstructions, it is then recommended to switch to powered descent to maximize the speed of recovery.
- 3. Another MEWP:** In some situations the use of another MEWP to gain access to the platform may be the safest option. This will only be acceptable if such rescue has been planned to include the means of transferring between platforms which prevents anyone falling.

If in doubt, ask! – Any Questions?

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