



EQUIPMENT SAFETY SYSTEMS

EQSS OverWatch

Toolbox talk

WHO NEEDS TO KNOW?

This toolbox talk applies to

- MEWP Operators
- Site managers and supervisors
- Ground staff

Why is this important?

Can you be crushed when operating a scissor lift? Know the risks and how to use the machine safely. Working at height requires moving the work platform near fixed structures. The operator and occupants can be in exposed positions “in the line of fire” when driving or raising the work platform.

What is it?

The OverWatch is a type of crush protection, which are sometimes called Secondary Guarding. The scissor lift is designed with protection to reduce the risk of being crushed against the controls – including an enable trigger on the joystick (deadman switch) and a fixed bar or shroud over the controls. The OverWatch is an additional protection. It can be fitted to all scissor lifts and vertical masts.

What I need to know

You should know how the OverWatch works, how to be in position to operate the machine, when it is active (and not active!), how to override and how to react in an emergency.

How it works

The OverWatch is a Lidar sensor. It sends an infra-red beam of light to measure the operator’s position. This signal occurs thousands of times every second, so it quickly identifies the operator’s movements.

Starting to move the machine

The OverWatch allows normal movements of the machine.

To start moving the operator must be standing in front of the control box and sensor.

Fast movements indicate a potentially dangerous situation, so make sure you and the machine move slowly and smoothly. SMOOTH AND PRECISE



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What operator movements will stop the machine?

The OverWatch will activate and stop machine movement when it detects the operator moving into an unsafe position where they may become crushed onto the control box or guardrail.

The operator can move freely to look at the ground, overhead and behind them.

The machine will be stopped when elevating

- If the operator must move to avoid an obstacle (for example duck under piping)
- If the operator moves quickly toward the sensor and control box
- If the operator moves away from the control box and out of the sensor beam

The machine will be stopped when driving

- If the operator moves toward the control box or front guardrail (in reverse only)

The system compares the direction of machine movement and does not activate if the operator moves in the same direction as the machine, such as leaning forward while driving forward.

Driving across rough ground may mean a bouncy ride, so the operator must hold on and stand firm.

After it Activates

To restart movement the operator must

- Stand in front of the controls
- Release the joystick
- Hold the joystick and squeeze the trigger

When it is active

It is important that protection is provided for the high-risk movements – elevating the work platform and driving both forward and backwards.

The OverWatch is active for these movements

- Lift
- Drive forward and backward when elevated
- Drive forward when stowed (slab scissors and vertical masts only)
- Drive backward when stowed

It is not active when lowering the work platform.

On rough terrain “big deck” scissor lifts it is not active when driving forward with the platform in the lowered positioned (this is identified as low exposure to crush points)

When the movement is selected you will hear the command “Elevate” or “Drive”



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Obstructed Sensor

The OverWatch detects if the sensor is blocked. You will hear the command “**Sensor obstruction**”
The operator must remove the obstruction and can wipe the sensor with a hand, glove or cloth.
There is no drive or elevate until the sensor is cleared.

Operator and Occupants

The OverWatch monitors the operator only. This reduces the risk of being crushed onto the controls or nearby guardrails. Take precautions if there are other occupants in the work platform.

Standing in position – the Operator Zone

A key to safe use is to stand directly in front of the control box. Fatal accidents have occurred when the operator was not standing at the controls and reached behind themselves to operate the machine. The OverWatch requires the operator to stand at the controls at the start of movement. If you're not in position then you will hear the command “**Operator Zone**”

If the operator twists their body they may move out of the sensor, which will cut out the machine. Keep square to the control box, by holding the left-side rail with the left hand. It may be necessary to stop and look around before driving.

Override

A short override is available to allow for precise manoeuvring of the work platform.
It is limited in duration and how often it can be used.
To start override simply tap the joystick trigger three times.
It is not possible to permanently disable the sensor.

When override is selected you will hear the command “Override”

No cutout is applied during override.

Calibration

The calibration was completed during the installation. There is no further calibration required.

Ground Rescuer

When working at height the best advice is to have someone available in case of an emergency. They should be competent to lower the work platform and know how to use both the lower ground controls and the emergency descent. The OverWatch allows these controls to be used. If the operator is trapped against the control box without moving for a short period then the machine horn will sound at regular intervals (Prone operator alarm).



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What are my outcomes?

- Understand how the OverWatch functions and when it will be active
- Always stand directly in front of the controls to operate the scissor lift
- Understand how moving outside of the operator zone will activate the OverWatch.
- Know how to use the override for careful positioning of the work platform
- Identify the Prone Operator alarm and know how to lower the work platform in an emergency

Each Operator should:

- Stand square-on to the control box
- Hold left-side rail with left hand
- Operate with right hand
- Turn head to look around for hazards
- Stop machine if needed to move body for better vision
- Stay in front of the control box

Fast movements indicate a potentially dangerous situation, so make sure you and the machine move slowly and smoothly.

MOVEMENTS SHOULD BE SMOOTH AND PRECISE

