

INSTITUTE FOR WORK AT HEIGHT



Wearing Of Harnesses in Mobile Elevated Work Platforms (MEWPS)

Topic:

There has recently been a lot of speculation in the industry with regards to the use of MEWPS and the correct fall protection required. The discussion keeps reverting back to, should a full body harness be worn or is it not a requirement.

Definitions:

Occupational Health and Safety Act, 1993

Section 8. General duties of employers to their employees

2. Without derogating from the generality of an employer's duties under subsection

(1), the matters to which those duties refer include in particular –

(e) providing such information, instructions, training, and supervision as may be necessary to ensure, as far as is reasonably practicable, the health and safety at work of his employees.

"Fall arrest equipment" means equipment used to arrest a person in a fall, including personal equipment, a body harness, lanyards, deceleration devices, lifelines or similar equipment;

"Fall prevention equipment" means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guardrails, screens, barricades, anchorages or similar equipment;

"Fall protection plan" means a documented plan, which includes and provides for—

(a) all risks relating to working from a fall risk position, considering the nature of work undertaken;

(b) the procedures and methods to be applied in order to eliminate the risk of falling; and

(c) a rescue plan and procedures;

"Fall risk" means any potential exposure to falling either from, off or into;

Recommendation:

The Construction Regulations 2014, CR10 (1) – (5), state that “any work where there is a fall risk will need to have a Fall Protection Plan in place” and this is explained in more detail.

Good Practice Note

2021

Good Practice notes inform the industry on how to embrace best practice and how to deal with issues that may arise. They are aligned with, but do not replace regulation as well as endorse industry standards

Specifically, the preference of fall prevention over fall arrest is discussed.

The Fall Protection Plan (FPP) thus ultimately drives what needs to be put in place.

The need for a full body harness and the type of lanyard required must be obtained from the manufacturers' recommendations and the site-specific risk assessment.

- Full body harnesses with short adjustable restraint lanyards are strongly recommended in all boom type platforms, which include the following –
 - Self-propelled boom lifts (articulated and telescopic),
 - Truck-mounted boom lifts,
 - Trailer-mounted boom lifts,
 - Crawler-type boom lifts (spiders),
 - Vertical mast booms where manufacturers recommend harnesses;
- If working over water, it is sensible to exchange a full-body harness for a personal flotation device.
- An operator should never attach a harness to any structure outside the platform, only designated attachment points, as identified by the manufacturer, inside the platform (ideally as close as possible to the platform floor).
- Safety harnesses should be regularly inspected by a competent person and the information logged but must also be inspected by the operator prior to use.
- Correct PPE, for any other location hazards, should always be worn. These may include hardhats with chin strap, high visibility clothing, safety footwear, gloves, and eye protection. PPE must always be the final stage in the hierarchy of prevention measures. Potential operating risks can be significantly controlled by good planning and safe operating practices carried out by well-trained operators.
- Operators must remain inside guardrails within easy hand reach of the work to be performed and must not over-reach or climb over the rails. Workers need to keep both feet on the work platform.

The international norm (as contained in IPAF documentation and guidance from most manufacturers) would be that harnesses are not a requirement in scissor lifts or push-around units (so-called vertical lifts). IPAF places a rider though in that local legislation may require the wearing of such harnesses.

But again, the FPP and site-specific risk assessment could determine otherwise. In theory it is so that in a scissor lift or push-around the risk for falling is mitigated because the operator is protected by guardrails (hence Fall Prevention). The FPP however also need to look at what else could go wrong and the possibility of the person being thrown from the basket remains real when the machine for example drives off a step, is hit by a vehicle such as a forklift or such, etc. To mitigate that risk, you have to address ways for preventing the person from falling or being thrown from the basket. That is

why we generally in SA recommend that a full-body harness be worn with a short lanyard for restraint (and NOT a fall-arrest harness) on all MEWPs. Refer also to CR 10(4)(d).

An anchored harness system stops the worker falling or being thrown from the platform. Such harness system must be certified to meet the required standard SANS 50361.

People using harnesses must be competent in how to wear, use and secure it. They must also know the FPP and be competent to follow the company/site approved rescue plan.

Ultimately the Risk Assessment and FPP will determine what the specific situation should be and whether such PPE is required.

Note:

All fall protection equipment needs to be in accordance with the relevant standards:

- SANS 50354: Personal protective equipment against falls from a height – Lanyards
- SANS 50355: Personal protective equipment against falls from a height - Energy absorbers
- SANS 50358: Personal protective equipment for work positioning and prevention of falls from a height - Belts for work positioning and restraint and work positioning lanyards
- SANS 50361: Personal protective equipment against falls from a height - Full body harnesses
- SANS 50362: Personal protective equipment against falls from a height – Connectors
- SANS 50363: Personal protective equipment against falls from a height - Fall arrest systems
- SANS 50364: Personal protective equipment against falls from a height - Test methods
- SANS 50365: Personal protective equipment against falls from a height - General requirements for instructions for use, maintenance, periodic examination, repair, marking and packaging
- SANS 50566: Mountaineering equipment - Slings - Safety requirements and test methods