



**POLICY ON THE USE OF FALL ARREST HARNESSSES IN ELEVATING WORK PLATFORMS**

**Issued: July 2003**

**Supersedes: February 1996**

The following policy has been developed by the EWPAA Inc as guidance for members in each State and Territory in the use of Fall Arrest Harnesses in ewps.

- All personnel in the platform (or basket) of a boom type ewp must wear a fall arrest harness (full harness) with leg straps and lanyard assembly, which is secured to an approved anchor point provided for this purpose. Boom type can include self-propelled booms, knuckle booms, trailer lifts, cherry pickers and truck-mounted booms.
- Fall arrest harnesses are not required on other types of ewps such as scissor lifts, vertical personnel lifts, unless a risk assessment indicates that they should be worn for risk control purposes, in which case the policy for boom type ewps will apply.
- The lanyard assembly shall comprise a lanyard and personal energy absorber.
- All snap hooks and Karabiners shall be self-closing and shall be capable of being opened only by at least two consecutive actions.
- All harnesses: lanyards, energy absorbers and attachment hardware must conform to the requirements of AS/NZS 1891.1 1995 and AS/NZS 1891.4 2000.
- Your Duty of Care requires you to replace or repair harnesses with bent hooks, welding holes in the webbing, paint damaged area, single action hooks and lanyards with no energy absorbers.
- The practice of permanently attaching fall arrest harnesses and lanyards to the approved anchor point is discouraged as it inhibits correct inspection of the harness. In addition the harness is unnecessarily exposed to all weather conditions even when not in use. This can result in the operator working inefficiently in the basket and may result in unsafe work practices.

The relevant applicable Standards are:

AS/NZS 1891.1 1995: Industrial Fall Arrest Systems & Devices: Safety Belts and Harnesses

AS/NZS 1891.4 2000: Industrial Fall Arrest Systems & Devices: Selection, Use and Maintenance

(This replaced AS 2626: 1983)

**Personal Energy Absorbers**

The use of personal energy absorbers is specified when the wearer of the harness may be subject to "free fall" and the fall arrest force using a lanyard alone may exceed 6kn (approximately 612kg of force). Because of the nature of work from a boom type ewp this situation could occur and therefore only lanyards with personal energy absorbers are recommended.

**Powerlines**

Where the boom type ewp is required to work around live wires (using an appropriately insulated ewp) then a fall arrest harness with an additional facility to connect a CDD (Controlled Descent Device) or EDD (Emergency Descent Device) is required.

This requirement for the fall arrest harness is because the operator will need to support their full body weight and control their decent down a special rope line attached to the basket or platform.

**Approved Attachment Points**

Please note that the approved attachment point must be capable of sustaining 15kn (1529 kg force) without distortion.

**Lanyards**

The maximum length of the lanyard, including the personal energy absorber, must not exceed 1.8m. This will still allow adequate movement of the operator, even in "oversize" platforms or baskets.

**Best Practice Summary**

To meet Best Practice and the requirements of the various OH&S Acts, the only defensible policy is to ensure each person on a boom type ewp platform or basket wears a fall-arrest harness (with leg and shoulder straps) and energy-absorbing lanyard attached to an approved anchor point in the platform.

Consult your local fall-arrest harness supplier for availability of the lightweight fall arrest harnesses complete with a sealed energy absorber and attached strap or coated lanyard connected at the shoulder blade position.

**Inspection of Harness before Use**

The operator must check and inspect their fall arrest harness before use, for damage to webbing through burns, chemicals etc. and damage to buckles and hooks. Also ensure the fall-arrest harness is correctly fitted and adjusted before entering the basket and attaching the lanyard to the approved anchor point before using the ewp.

**Signage on Platform/Basket**

The following signage wording on the platform/basket is recommended:



These can be ordered through the EWPAA Inc as required.

### **Suspension Trauma**

The extract below is taken from a report prepared by Dr Bill Weems and Dr Phil Bishop from the University of Alabama, in Tuscaloosa, Alabama, USA. Dr Weems is an Industrial Hygienist. He directs State Safe, the OSHA Consultation Agency for small business in Alabama. Dr Bishop is an Agronomist. He teaches and conducts research in the physiology of human performance.

*"Beware of the risks involved in 'suspension trauma'. Research has shown that suspension from a fall-arrest harness in a vertical position can result in the onset of suspension trauma, which can be fatal if the victim is not rescued quickly and correctly.*

*A worker suspended in an upright position with legs dangling in a harness of any type is subject to suspension trauma, which can lead to death. Fall victims can slow the onset of suspension trauma by pushing down vigorously with the legs and positioning their body in a horizontal or slight leg-high position.*

*If a worker is suspended long enough to lose consciousness, rescue-personnel must be careful in handling the victim or the worker may die anyway. This post rescue death is apparently caused by the heart's inability to tolerate the abrupt increase in blood flow to the heart after removal from the harness. Current recommended procedures are to take from 30 to 40 minutes to move the victim from a kneeling position to a sitting position to a supine position."*