

TOOLBOX TALK #36

FALL PROTECTION MISUSE – ENERGY ABSORBING AND SELF RETRACTING DEVICES

Twin-leg energy absorbing and self-retracting devices are two common pieces of equipment that can be confusing for users because they look similar and are generally used in the same way. However, they are not the same. These devices are tested in different conditions and applications, and they should only be used in the manner in which they are tested. They are not interchangeable.

One of the most common misuses of this equipment is anchoring below the dorsal D-ring. While this is improper use for both types of lanyards, it is especially dangerous with twin-leg energy absorbing lanyards due to the potential for increased forces.



Most specifically, if a system has two energy absorbers, as in a twin-leg lanyard, each will begin pulling out at 450 lbs and could have an average arresting force of 900 or 1350 lbs. So, a falling worker could experience 900 lbs of force even before the twin-leg lanyards begin pulling out. Consequently, after fully pulling out the force could exceed the maximum force allowed and reach up to 2700 lbs.

Following are key tips to avoid misuse of lanyards:

- Ensure that the twin-leg energy absorbing and self-retracting devices are tested in the manner to be used (i.e. tested for additional free fall if attached below the dorsal D-ring).
- Do not attach both legs to an anchorage. Always connect the unused leg to a non-load-bearing part of the harness via breakaway tab or specific lanyard parking element. Do not attach to a load-bearing part of the harness.
- Do not anchor both legs of the lanyard at the same height, which may increase arrest forces.
- Have a training self-retracting device unit available that can be disassembled so that users can learn the vulnerabilities and inner workings of the unit.