Travel restraint versus fall arrest

Ontario Regulation 213/91: Construction Projects, requires workers to be protected by the highest-ranked method of fall protection that is practicable. The methods of fall protection are ranked as follows:

1. a travel restraint system
2. a fall restricting system
3. a fall arrest system
4. a safety net

A travel restraint system is the highest-ranked choice because it prevents the worker from falling over the edge. For this reason, it is preferred over a fall restricting or fall arrest system, which limits a worker’s fall but doesn’t prevent it from happening.

Since there is no lifeline or lanyard to rub against the leading edge, a travel restraint system is the best option for this kind of work.

If a fall arrest system must be used, follow these prevention tips to help make sure that your lifeline or lanyard doesn’t break in the event of a fall.

Leading edge work

A leading edge is the unprotected end of a formwork, floor, roof, deck, or other walking or work surface. Those can be very dangerous places to work if proper safety precautions are not taken. Although using proper fall protection equipment is one way to protect yourself, failure can still occur. The best way is to eliminate the fall hazard is by using guardrails or a travel restraint system.

When you are working on a leading edge or other sharp work surface, the lifeline or lanyard—including a self-retracting lifeline or lanyard (SRL)—can become frayed or cut as it hits and rubs against the edge. As a result, if a worker fell, the force of stopping the fall would likely cause the lifeline or lanyard to break.

When working at heights, workers often rely on fall protection equipment to keep them safe. New training standards and regulations from the Ministry of Labour have put a spotlight on the importance of proper training in the use of fall protection equipment. Many workers have taken the required training and use fall protection equipment regularly. However, in some situations, like working on a leading edge, training and experience may not be enough.
Inspection and Attachments

- Inspect the equipment before each use.
- Attach the lifeline to an anchor point overhead or as high as possible so the lifeline is vertical. If it is horizontal, it can drag along the edge and be damaged.
- Select an anchor point that is directly behind the worker to limit the fall distance as much as possible and prevent the lanyard from running over the edge.
- Ensure that sharp edges are covered or protected (e.g., use edge softeners such as rubber bumpers or padding).
- Use SRLs in travel restraint so that workers cannot fall. Make sure that the payout (length) is shorter than the fall hazard (distance to the edge). If the line is long enough to go over the edge, the worker is not in travel restraint.
- Use SRLs that are specifically designed for leading edge work. They are classified as SRL-LE and certified by ANSI Z359.14 and CSA Z259.2.2-14. The CSA standard was published only recently, so ANSI-certified SRL-LEs will be easier to find.

Safety Tips

Several employers have decided to remove from service all SRLs that don’t meet the criteria for leading edge protection. That will make it impossible for a worker to use the wrong type of SRL.

If you or your workers are working near a leading edge, take extra precautions and follow these safety tips. For information on IHSA’s Working at Heights training program, visit ihsa.ca/training. To download the complete safety advisory on this topic, visit ihsa.ca/products and click on Free Downloads.