CONTRACTOR TOOLBOXES

Contractor toolboxes are sets of tools and resources that employers and drivers can use to address the risk of injury from load securement activities based on their operational needs and preferences. These toolboxes include descriptions, musculoskeletal injury (MSI) risk reduction measures, time requirements, costs, safe work procedures, risk exposure, risk controls and other implementation resources.

As per WorkSafeBC OHS regulation section 4.46 to 4.53, employers must identify the factors that may expose workers to the risk of MSI in their workplace. Employers can refer to BCFSC's load securement risk assessment tool for risk identification (reg 4.47) and risk assessment (reg 4.48) related to load securement (BCFSC 2021).

It should be noted that the tools or methods identified in the contractor toolboxes reduce but do not eliminate the risk of MSI.

To use the toolboxes effectively, the employers and drivers must:

- Make sure that they become familiar with the tools and resources provided, and understand how to use these tools in their operations;
- Ensure users are trained on safety procedures;
- Be aware of risk exposures and controls;
- Conduct regular safety inspections and stay current with new safety regulations and best practices.

For all toolboxes, there are general risk reduction considerations for drivers that need to be followed:

- Train or refresher training to increase effectiveness and the confidence of workers.
- Remember the importance of stretching throughout the day / during breaks to reset muscles and avoid further strain, targeting especially the shoulders and back before and after load securement activities.
- Consult supervisor or health &safety reps for considering the most appropriate toolbox for drivers with previous injuries, low fitness level or restricted mobility.
- Assess the condition of the load and the work area available on both sides of the truck before using any tool or method.
- Where possible, practice the throwing motion using both dominant and non-dominant hands so that they may alternate and spread the load between both arms throughout the day.
- Avoid throwing multiple wrappers in one throw.

Toolbox F – Elevated Platform

Descriptions

An elevated platform (Figure 35) reduces throwing height and in combination with the use of an underhand throwing method significantly decreases the risk of MSI injury. The platform itself is 4 meters in height and is accessed via two sets of stairs. To facilitate getting the wrappers over the load via an underhand throw, 8-inch gaps are established in the upper guard rails. Two trucks can access the platform simultaneously, one on each side. This platform also has a device to carry multiple wrappers to the top of the platform removing this step for the drivers.

Figure 35. Platform in a reload site for throwing wrappers from an elevated position.

MRS and MRS Risk Level

With an underhand throwing method, the MRS of elevated platforms is 10 to 12 and the risk level is low (Table 17).

Table 17. MRS and MRS risk level when using platforms to throw wrappers

Movement Risk Score	Risk Level
10-12	Low

Safe Work Procedure

The safe work procedures for the use of elevated platforms are as follows:

1. Park trucks close to the platform so that load/bundles are aligned with the railing gaps on top of the platform.

2. Take the required wrappers from the trailers (Figure 36a) and place them in the wrapper belt (Figure 36b). There are two wrapper belts on the platform.
3. Use three-point contact while climbing the stairs (Figure 36c).
4. Rotate the wheel located on the top of the platform using body weight and keeping hands close to the body (Figure 36d) to lift the wrappers to the top. Use only the wheel to turn the wrapper belt.

Figure 36. Steps involved in getting wrappers to top of the platform.

5. Collect and uncoil the wrappers

Figure 37. Underhand throw from platform.

6. Position body in line with the rail gaps. Stand with a wide, stable stance, one foot in front of the other. Avoid twisting of the low back.
7. Ensure elbows are as close to the body as possible.
8. Use an underhand throw. through the railing gaps (Figure 37). Throw wrappers between the gaps only, avoid sidearm throws.
9. Repeat the throw for all bundles.
10. Adjust the truck position if required.

Time

For a three-bundle load, it takes about three minutes to throw six wrappers over the load. This is the same as for the traditional wrapper throwing method.

Cost

Capital cost: approximately $150,000

Risk Exposure

While using the platform, the drivers are still exposed to risk of musculoskeletal related injury (MSI) if non-ideal posture or methods are used. Other risks include slips, trips and falls while climbing stairs.

Railing gaps should be no wider than 8 inches as this provides sufficient space to get wrappers through while preventing workers from falling through the gap.

Suppliers

The platform was fabricated by Monster Industries Ltd, Houston, BC.

Contact number: 250-845-3240

ADDITIONAL RESOURCES

Other resources on wrapper throwing method, training and injury management that employers and drivers can refer to:

- BC Forest Safety Council: Throwing Wrappers – Method for Reducing Injuries https://www.youtube.com/watch?v=hDD5gzrjFJM
- BC Forest Safety Council: Shoulder Injury Management for Log Truck Drivers https://www.youtube.com/watch?v=emmPSSL3aDE
- BCFSC and Total Physiotherapy (2018) Throwing procedure https://www2.bcforestsafe.org/files/BCFSC_Logging_Poster_Method_Throwing_Wrappers_0.pdf

There are additional resources from BCFSC and FPInnovations that can be used in risk assessments for loader assist methods:

- BC Forest Council: Loader Assist Procedure
    - https://www.bcforestsafe.org/wp-content/uploads/2021/10/Risk-Assessment-Tool-MSI-Load-Securement_14-Oct-21_FINAL.pdf
    - https://www.youtube.com/watch?app=desktop&v=QhORC4T7ABc
- FPInnovations: Reducing Repetitive Strain Injuries Resulting from Installing Log Load Wrappers https://www.youtube.com/watch?v=WX2nWni4FOI