Safety Facts:

Storage Racking and Forklifts*

Storage racking systems aka pallet racking are a storage method that leverages vertical space to store products and materials, whether single items or palletized loads. Operators typically use forklifts to place and retrieve pallets and other materials stored on the shelves.

Depending on the space available in the workplace to erect the racking system, the style of racking system used, and the style of forklift to be used load and unload the racking system, these factors will impact the efficiency of the storage options for your products. For example, using a sit-down counter-balance forklift in a racking system with narrow aisle will be more difficult compared to using a stand-up narrow aisle lift truck with extendable forks or an order picker.

Why is it important?

Driving in aisleways and racking systems, loading, and unloading pallets from racking systems, etc. require additional skills for the forklift operators. We want to ensure that the forklift operators do not strike or damage the racking system.

Associated risks/hazards

Forklifts in racking systems can have the following hazards:

- Forklifts striking the racking system may cause the racking system to collapse
- Products improperly stored can fall off racking system and strike the forklift
- Muscle strain to the neck and shoulders caused by looking upwards when lifting and removing loads and performing more shoulder checks
- Mental fatigue caused by having to concentrate more while working in racking e.g., looking out for other workers, trying to avoid hitting the racking
- Fire sprinklers contained within racking system activating when struck by a fork

Preventive next steps

1. Follow Occupational Health and Safety Regulation (OHSR) section 4.43.1. requirements for storage racking.
2. Provide specific training and coaching to help forklift operators to safely operate within racking systems and to load and unload loads. This is above the normal forklift course requirements.
3. Install guards at the base of vertical (upright) frames and at the end of the rows to protect them from impact. Ensure operators report any damage or impact.
4. Ensure safety pins are installed in horizontal (pallet) beam so that forklifts forks cannot accidentally release the beam.
5. Consider limiting the speed limit in racking systems to a walking 'person's pace.
6. Consider implementing directional control in a racking system e.g., one-way directions to avoid conflicts between forklifts.
7. Install convex mirrors at blind intersections and ensure lighting meets OHSR requirements to help forklift operators and other workers to see each other.
8. Train staff to stop, look, and listen before entering or exiting aisleways and to look for a forklift. Also wear your high-visibility apparel.
9. When necessary, use a spotter to help install or remove a load.

* For additional resources visit:

Occupational Health and Safety Regulation 4.65 Illumination levels | WorkSafeBC

Occupational Health and Safety Regulation 4.43.1 Storage Racks | WorkSafeBC

Working safely with pallet racking systems website | WorkSafe New Zealand

Storage Racking and Forklifts

Toolbox Talk

Name of Facilitator: _____ **Date:** _____

Supervisor Signature: _____ **Date:** _____

Employee feedback/questions/recommendations

Workers who attended

Name	Initial	Name	Initial

Key Talking Points (Facilitator Notes)

1. What type of storage racking are we using at this workplace?

2. What are the hazards of operating in storage racking?

3. What preventive steps can be taken while working in storage racking?