
CASE STUDY – LADDER SAFETY – WAREHOUSE

Keywords: Ladder, Manual Materials Handling, Lifting, Carrying

1. Background

On occasion, employees are required to access items on a top shelf requiring a mobile platform. These items are for special orders, and each box weighs approximately 26 kg. The special orders are often one of the last things that are picked during a shift. An employee was seen stretching to retrieve a box when they lost their balance and fell. Luckily they were not seriously injured, but the employee immediately reported the incident to their supervisor.

2. Assessment

The company has a strong health and safety program and decided to undergo a review to determine the root cause. It took the following steps:

- Underwent a document review on policies and procedures.
- Inspected the mobile platform.
- Reviewed inspection records and incident reports.
- Reviewed training records.
- Observed employee behaviour.
- Completed a risk assessment.
- Spoke to the JHSC and several employees about the incident.

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3. Conclusion

The company came to a number of conclusions:

- The special order items are too heavy for employees to lift making it difficult to remove from the shelf.
- The investigation revealed that the person did not want to climb down the mobile platform to move it closer and instead tried to stretch to reach the box. A wheel moved and resulted in the center of mass of the individual being moved outside of the platform, resulting in instability and causing the individual to lose their balance and fall. Because of tight timelines and busy schedules this has happened more than once.
- One of the wheels on the mobile platform could not be locked resulting in some movement when leaning.
- Although inspection records were completed, the broken wheel was missed.
- Employees were often fatigued from completing their entire order, by the time they got to the heavier special order items, they felt it even more strenuous.

4. Recommendations

The following recommendations were implemented:

- Developed a policy to limit how much employees can lift.
- Added handles to boxes where appropriate.
- Fixed the broken wheel so it could lock, stabilizing the platform.
- Reviewed and updated the preventative maintenance schedule.
- Re-trained committee members on what to look for during inspections.
- Reorganized the heavier boxes onto lower shelves to make it easier to remove them from the shelving.
- Built in time for the reach truck to lower pallets to minimize the amount the mobile platform use required.
- Reorganized the way the orders were picked to try to minimize fatigue by picking the special orders throughout the shift and not all at the end
- Retrained employees on proper lifting and mobile platform use and taking the time to reposition the mobile platform
- Retrained supervisors on identifying hazards
- Investigated mechanical means of product removal using different attachments on reach trucks to remove some heavy boxes.

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5. Success Factors and Challenges

The company experienced the following successes:

- Employees were involved in changes and suggested improvements to processes.
- Employees felt more comfortable using mobile platforms when handling materials.
- The preventative maintenance program improved the condition of the mobile platform.
- The company found productivity increased when tasks were optimized for human capabilities.
- By using different attachments on the reach truck it meant less physical work for the employees resulting in less fatigue.

Some challenges that were identified were:

- Process changes were difficult to implement.
- The unpredictability of the special orders made it a challenge to reorganize the location of these items on the racking.
- Some employees found the change disruptive.
- Mechanical equipment was not always available which meant more manual handling of materials.

6. Transferability

The company has decided this process is applicable to all areas of the warehouse. They plan on extending the program and process to future expansion.

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7. Further information

<https://www.wsps.ca/Information-Resources/Topics/Ladders.aspx>

<https://www.wsps.ca/Information-Resources/Topics/Slips,-Trips-and-Falls.aspx>

For additional information, ask to speak to your local Ergonomist.

Workplace Safety & Prevention Services

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