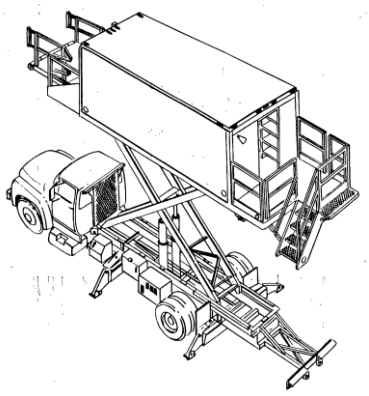
High-Lift Truck (Box Truck) Case Study

Background

The high-lift box truck is designed for transporting employees and supplies to support the cabin cleaning, servicing and catering operation. This truck is used to service aircraft using the elevated service doors. The truck has a lift kit which raises the entire box end of the truck to the aircraft doors. The employee enters the aircraft from an extendable platform which is designed for transporting supplies. Some trucks are equipped with stabilizers which are installed on the front and rear of the lift to provide additional stability when the body is elevated.

These trucks are unique to the industry and are designed to help employees load/unload supplies from an aircraft. There are hazards that are encountered while operating a high-lift/box truck in the aviation industry. All of these hazards have the potential of injuring employees.



Hazards Associated with the High-Lift/ Box Truck (not all inclusive):

- Fall Hazard
- Crush Hazard
- Blind Spots/Visibility
- Lighting
- Truck Height
- Turning Radius
- Items not Secured on Shelves
- Truck Alignment to Aircraft
- Severe Weather
- Unexpected Truck Movement
- Equipment Failure

- Exposure to hydraulic fluids/leaks

Hazard Mitigation

In order to help mitigate hazards, the employer should ensure a job safety analysis is completed to ensure that all tasks are identified along with potential hazards. Procedures should be documented that address the specific hazards. Company procedure manuals and training should cover the following to help reduce the risk of hazards associated with the high-lift box truck.

- Inspection
    - Inspect vehicles at the beginning of each shift
    - Report all unsafe conditions to designated personnel
    - Remove from service if unsafe for use.
- Stocking/Stacking
    - Proper lifting/carrying techniques; establish three points of contact
    - Heavier items stored waist height or below
    - Secure supplies
- Positioning
    - Use a guide person when approaching the aircraft
        - Educate guide person on proper techniques
    - Perform brake checks
- Chocking
    - Types of chocks
    - Who chocks
    - Which tires
    - Position chock(s) against tire
- Operating Platform
    - Ensure stabilizers are deployed
    - Ensure adequate clearance before platform is raised or lowered
- Use of Safety Devices (Handrails)
    - Ensure handrails are in place before opening the aircraft door
- Truck Operation
    - How to conduct a pre-operational inspection
    - Powered Industrial Truck training is provided

In addition to having procedures that address these hazards, the employer should ensure audits and safety observations are performed to ensure all procedures are adequate and being followed.

Brief Description of Incident

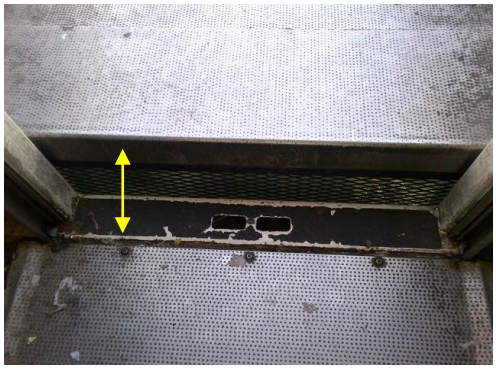
Crush Hazard:

"On July 26, 2005, Employee #1, a provisioning crewmember was operating a provisioning truck, equipped with a hydraulic box truck, to service an airplane. Supplies were loaded into the truck; the truck was positioned near the airliner; and the bed of the truck was raised via the scissor system. The bed of the truck had two sections; the rear section which raises to meet the front section, approximately 6 feet, then the rear and the front both raise to the entry point of the cargo door opening. Once the provisions have been loaded/unloaded, the process is reversed. After the rear deck had come down and the front deck was beginning to descend, Employee #1 was on the lower deck stowing empty containers and trash cans. As the upper deck was descending, a trash can that was on the lower deck impeded the descent by lodging between the two decks. Employee #1, seeing this, kicked the trash can, dislodging the upper deck and causing the rapid descent of the upper deck. His right foot was dragged into the space by the falling upper deck, amputating the second and third toes of his right foot. He was hospitalized for his injuries."
OSHA Accident Report 201037728

Incident Prevention:

- The employer and employee must ensure that high-lift box trucks are safe to operate and properly maintained.
- The employer must train employees on the safe use of this equipment. For example, employers should train employees to do the following to avoid incidents like the one described above:
    - Secure supplies, trash and other loose items away from pinch points such as upper and lower decks
    - Ensure adequate clearance before platform is raised or lowered
    - Keep feet and hands away from upper and lower deck pinch points
    - Do not attempt to clear obstructions when raising or lowering deck
        - Stop and reverse direction prior to removing obstruction
    - Don't rush, follow standard operating procedures
- The employees are responsible for following company procedures to avoid incidents like the one described above.

Supplies and carts properly stowed



Gap between upper and lower platform

Under the Occupational Safety and Health Act, employers are responsible for providing a safe and healthy workplace and workers have rights. OSHA can help answer questions or concerns from employers and workers. OSHA's On-site Consultation Program offers free and confidential advice to small and medium-sized businesses, with priority given to high-hazard worksites. For more information, contact your regional or area OSHA office, call 1-800-321-OSHA (6742), or visit www.osha.gov.

Through the OSHA and Airline Group Safety Panel Alliance, the Airline Ground Safety Panel developed this case study for informational purposes only. It does not necessarily reflect the official views of OSHA or the U.S. Department of Labor.