17-year-old Warehouse Worker Crushed by Forklift



Victim

17-year-old warehouse worker was fatally injured when the sit-down type forklift he was tipped over on its side and crushed him. The victim was employed under a work-based learning program and had been working for three months when the incident occurred.

Location

The incident happened at an agricultural cooperative (co-op). The co-op's retail store was connected to the co-op's tire shop and a warehouse. Also, on the grounds was an equipment storage shed, a fertilizer shed, and an outdoor storage area where 200-pound molasses animal licks were stored. A large flat concrete parking lot extended in front of the store entrance and around one side of the warehouse where a loading dock and ramp were located – Photo 1.



Photo 1

What Happened

At the time of the incident a customer was helping the victim as he loaded a molasses lick into another customer's trailer using a forklift. Approximately 5 minutes later, the customer heard a loud crashing sound. He ran over to the area where the victim had been operating the forklift and saw the forklift tipped over on its side. The victim was lying face down and pinned under the cage of the forklift and with one leg extended and the other leg doubled up under him.

Imagine how you would feel and how you would react if you were the customer, or the victim's supervisor or co-worker and you were the one who found the victim.

The customer ran to get help. While he and a co-worker ran back to assist the victim, another coworker ran into the company's store to call 911. The customer and co-worker were unable to lift the forklift manually and told another co-worker to get a front-end loader. As co-workers lifted the forklift off the victim using the front-end loader, the customer pulled the victim clear. The victim was conscious but having difficulty breathing.



Photo 2

It appeared the victim was traveling toward the warehouse ramp on the level surface of the parking lot and made a sharp right turn to enter the narrow ramp leading up to the warehouse. It is surmised this is when the forklift tipped over onto its left side. The forklift was not loaded but its forks were raised approximately 20 inches. There was a single 12-foot skid mark located on the parking lot where it is surmised the victim started into a right turn toward the ramp.

Photo 2 illustrates the parking lot, warehouse and ramp, and other co-op buildings. Lines on the photo approximate the travel path of the forklift on the day of the incident. An "X" marks the approximate location of the forklift that had tipped over. Photograph courtesy of the Tennessee Department of Labor and Workforce Development, Division of Occupational Safety and Health.

The police and fire department responded to the scene at 2:00 p.m., the ambulance was dispatched at 2:08 pm. and responded at 2:09 p.m. EMS personnel examined the victim and inserted an endo-tracheal tube at 2:18 p.m. followed by a needle chest decompression immediately after, to help the victim breathe.

A medical helicopter was dispatched to transport the victim to a trauma center, but while the ambulance was en route to meet the helicopter, the victim's condition deteriorated, and the victim was transported instead to a local hospital. The victim arrived at the hospital at 2:32 p.m. and was pronounced dead at 3:16 p.m. in the hospital's emergency room.

In less than 90 minutes this young man went from a teenager with the rest of his life in front of him – to a barely breathing, terrified child – to another needless workplace fatality.

Fatality Factors and Prevention

The entrance/exit of the warehouse was narrow, measuring 70 inches in width. A post and an abandoned grain feed dispersal bin located inside the entrance left just enough room for the forklift to pass through.

- Old scrape marks on the forklift and on the post and grain bin inside the warehouse were likely indicators of a tight fit.
- The local manager said that forklift operators had to speed up to make it up the ramp and then had to slow down at the entrance to fit through the narrow passage after passing through the warehouse door.
- The ramp's surface was patched and rough where the ramp joined the flat, level parking lot.
    - The co-op was being relocated so the rough pavement in the transitional area where the level parking lot met the ramp, and the confined areas in the warehouse had not been changed because of the planned move.
    - It is worth noting these issues were known and identified as problematic.
- A well-developed safety and training program were lacking.

To help prevent similar occurrences:

- Conduct periodic inspections and frequently remind equipment operators to use seat belts provided and never try to jump from an overturning sit-down type forklift.
- Check travel routes used by forklifts are free of obstacles and other unsafe conditions.
- Establish work policies that comply with child labor laws prohibiting youths less than 18 years of age from performing hazardous work, including operating power-driven hoisting equipment such as forklifts. All employees should be aware of this policy.
- Develop, implement, and enforce a comprehensive written safety program for all workers which includes training in hazard recognition and the avoidance of unsafe conditions.
    - A written training plan should require training for all forklift operators that includes the equipment manufacturers' recommendations for safe equipment operation.
- Identify and label equipment not to be operated by workers under 18 and only provide keys to trained and authorized operators.