

# **TITLE: 4592 MORE HIGH-IMPACT FORKLIFT SAFETY**

**LENGTH: 10 MINUTES**

**PRODUCTION YEAR: 2004**

## **PROGRAM SYNOPSIS:**

Powered industrial trucks, often called forklifts or lift trucks, are so diverse and powerful that they allow us to carry practically anything and place it almost anywhere. Along with that ability, we as operators also carry a large amount of responsibility. We must be responsible not only for the proper operation of our truck and delivery of our load, but also for our safety while driving and the safety of anyone in our path. Unsafe and improper forklift operation can lead to injury and property damage, but following safe work practices can prevent many needless incidents.

This program examines some tragic lift truck incidents and shows how similar scenarios can be avoided by following safe operating practices. Topics include operator training and authorization, understanding and anticipating driving hazards, preventing injuries to pedestrians, lifting capacity, stability characteristics and working in and around trailers and railcars are other issues covered.

**SHOOTING LOCATION:** A variety of industrial settings

**PROGRAM OBJECTIVES:** After watching the program, the participant will be able to explain the following:

- The importance of understanding and anticipating forklift driving hazards;
- Measures they must take to prevent incidents involving pedestrians;
- Lifting capacity and stability characteristics of forklifts;
- Steps to take to secure trailers and railcars.

## **PROGRAM OUTLINE**

### **OPERATOR TRAINING**

- There are many types of powered industrial trucks, each designed for a specific use and operating environment.
- As an operator, you will receive specific training on the type of lift you will be operating, including a) becoming familiar with the operator's manual, b) learning to perform a pre-operational inspection and c) knowing the location and function of the truck's control mechanisms.
- Your training will also include hands-on driving instruction and skill testing, which requires you to demonstrate a mastery of the steering and handling characteristics of the industrial truck you will be operating.

### **UNAUTHORIZED FORKLIFT OPERATION**

- Many injuries and property damage occur each year when unqualified workers attempt to operate forklifts, powered pallet jacks, reach trucks and other types of industrial trucks.
- As a trained operator, your responsibility in this area is two-fold. First, never operate a truck for which you have not been trained and authorized.
- Secondly, properly secure your truck anytime it is out of your immediate control so it may not be operated by an unauthorized driver.
- Anytime the vehicle is out of your direct sight or you are more than 25 feet from the vehicle, the forks must be lowered, the parking brake set and the key removed to prevent unauthorized use.

### **UNDERSTANDING & ANTICIPATING DRIVING HAZARDS**

- Powered industrial trucks are much heavier than automobiles and take longer to come to a controlled stop. Always operate at a controlled, safe speed in case you must stop unexpectedly.
- When following other forklifts, allow about three truck-lengths distance to provide room to stop.
- Be aware that wet or slippery floors will affect your stopping distance, so you must slow down when driving in these conditions.
- Stop and sound your horn before proceeding through a blind intersection, doorway, corner or similar area to alert others of your presence.
- Operators who fail to stop for intersections or drive with excessive speed are the cause of many incidents, resulting in injury and property damage.
- You must always be aware of another potential source of collisions: a wide-swinging rear end. Because lift trucks have rear wheel steering, they turn very sharp and have a wide rear end swing.
- Failing to account for this causes many incidents of property damage as well as serious injury to pedestrians standing nearby. Many pedestrians and co-workers do not fully understand this hazard, so it is up to you to make sure your path is clear of all obstacles and personnel before turning.

### **PREVENTING INCIDENTS INVOLVING PEDESTRIANS**

- Common injuries suffered by pedestrians involving powered industrial trucks include a) being crushed between the lift truck and a fixed or solid object, b) being struck by falling material while standing under a raised load or c) being struck when previously stored items become unstable.
- Workers are also injured while attempting to catch a ride on a forklift. Unauthorized riders frequently fall from the lift and are crushed under the wheels or are injured when the lift passes close to a solid object, crushing an exposed body part.
- As the operator of a powered industrial truck, it is your responsibility to prevent these types of deadly mishaps.
- Never drive your lift truck towards a person who is in front of a solid object such as a wall or bench.
- Never allow anyone to place themselves or any body part underneath a raised load or any raised attachment.

- Never allow anyone to ride on your forklift unless it is designed to carry passengers.
- In order to protect pedestrians, first you must be able to see them. Traveling with a blocked view creates a dangerous situation for anyone nearby; always travel with the load low to the ground so your view won't be blocked.
- Of course, some loads are so tall they will block your view even with the forks lowered. When this is the case, you should travel in reverse so your view will be clear.

### **LIFTING CAPACITY & STABILITY CHARACTERISTICS**

- Besides a commitment to safety and responsible operation, safely operating a powered industrial truck also requires an understanding of the lifting capacity and stability characteristics of the truck you plan to operate.
- Every forklift has a rated capacity listed on the nameplate. As a qualified operator, you are expected to know where the nameplate is located and how to read it.
- The nameplate will specify a rated capacity for a specific load center. The load center is the distance from the back of the forks to the load's center of gravity.
- Most forklifts use a heavy counterweight to offset the weight of the load. Without this counterweight, a loaded truck would tip over.
- The point on which the loaded truck would balance is called the truck's center of gravity.
- The truck is most stable when its center of gravity falls within the triangular-shaped area formed by the front wheels and the midpoint of the rear axle. This triangle-shaped area is referred to as the "stability triangle."
- Lifting a load which exceeds the truck's capacity will cause the truck's center of gravity to shift too far forward, tipping the truck.
- Your training will include how to determine your truck's capacity and how to estimate the weight and load center of the loads you will be carrying.
- Never travel with a raised load because a raised load moves the center of gravity towards the front of the stability triangle and the added forces of accelerating, turning and braking can easily lead to a tip-over. Instead, travel with the load low to the ground to maximize the stability of your loaded truck.
- Even an unloaded forklift can become unstable as the heavy counterweight shifts the center of gravity very close to the back edge of the stability triangle. Turning too fast, especially on an incline, can easily tip an unloaded truck.
- When traveling up or down inclines, only travel straight up or straight down, never at an angle.

### **WHAT TO DO IF A TRUCK TIPS OVER**

- Most trucks have a seatbelt; when one is present, it must be used.
- If your truck begins to tip, hold onto the wheel, brace your feet and lean away from the direction of the tip-over.
- Never attempt to jump out of a tipping forklift; many operators have been violently crushed between the safety cage and ground.

### **TRAILERS & RAILCARS**

- Anytime we plan to leave the solid flooring of our workplace to enter a trailer or railcar, there are some critical areas that must be inspected to ensure our safety.
- Before entering any trailer or railcar, it must be properly secured. This can be achieved by either a dock-locking system or by chocking the wheels.
- The forces created by a lift truck moving in and out can cause an unsecured trailer to move, resulting in a lift truck being stuck between the trailer and the dock or falling violently to the ground.
- Inspect the floor system of any trailer or railcar before driving into it. Often these vehicles are not maintained by the company and there is no way to predict which ones are in poor condition without an inspection.
- If the flooring looks rotten, or feels spongy or unstable with just your body weight, there's a good chance it will not support the weight of your heavy forklift. Do not enter trailers or railcars with suspect flooring.
- Every company has specific rules and procedures concerning loading and unloading trailers and railcars. Make sure you fully understand and comply with your company's rules and procedures.