



ABOUT SAFE FORKLIFT OPERATION

LENGTH: 12 MINUTES

PROGRAM SYNOPSIS:

Our workplace is full of hazards, hazards that can hurt us or kill us. Controlling these hazards and preventing injuries is the point of our safety and health program. One such hazard is the one presented by the unsafe operation of powered industrial trucks commonly called forklifts or lift trucks. Ensuring that drivers operate forklifts in a safe manner can prevent injuries and save lives. That is the point of our facility's policies regarding powered industrial trucks and that is the point of this program.

Topics include pre-operational inspection, determining the truck's lifting capacity, how to maintain a forklift's stability, lifting and placing loads, safe driving techniques and precautions for working on loading docks and in trailers.

PROGRAM OBJECTIVES:

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

- What to look for when performing a pre-operational inspection;
- How to keep a forklift's center of gravity inside its stability triangle to prevent tip-overs;
- How to safely lift and place loads;
- Which safe driving techniques to practice to avoid injuries and property damage;
- What precautions to take when working on loading docks and inside trailers.

INSTRUCTIONAL CONTENT:

OPERATOR TRAINING & CERTIFICATION

- Our organization has implemented an operator training and certification program as required by the Occupational Safety and Health Administration, OSHA, and their standard "Powered Industrial Trucks."
- An operator of a powered industrial truck must be trained on the specific type of truck they will be certified to operate.
- In order to be certified, an operator must demonstrate that they fully understand the instruments and controls of the vehicle and that they are able to operate the truck proficiently and in a safe manner.

FORKLIFTS MANEUVER DIFFERENTLY THAN AUTOMOBILES

- The first point that an operator must understand about forklifts is that they maneuver much differently than an automobile.
- An automobile steers by turning the two front wheels, while a forklift steers by turning the rear wheels. This rear wheel steering creates a tight turning radius, allowing a forklift to maneuver in tight places.
- This configuration also causes the rear end to swing wide and in the opposite direction of a turn.
- Also, a lift truck weighs more than a typical car. Because of its weight and ability to carry heavy loads, a lift truck will take longer to stop than a car.

PRE-OPERATIONAL INSPECTION

- In order for a powered industrial truck to be operated safely, it must be in good working order. This is the point of the pre-operational inspection.
- The pre-operational inspection should be performed before the forklift is used for the first time during each shift.
- Start by making a complete circle around the vehicle, looking for fluid leaks and checking the tires for damage.
- Then, make sure the forks and their pins are in good condition.
- Also, check the hydraulic hoses, mast chains and cables for damage, kinks or excessive wear.
- If the vehicle is equipped with guarding or a seatbelt, it should be in place and in good condition.
- Next, safely mount the truck using three-points of contact and test the function and proper operation of the controls.
- If you discover any problems you can't remedy yourself during the inspection, you should tag the unit out of service and report the problem. Do not use a defective lift truck.

DETERMINING THE TRUCK'S LIFTING CAPACITY

- Another point is that lift truck operators must be able to determine the lifting capacity of the lift truck they operate.
- The distance from the mast to the center of gravity of the load is called the "load center." This load center distance greatly impacts the lifting capacity of any powered industrial truck.
- Every lift truck has a load capacity printed on its data plate. This is the maximum weight that the truck can lift safely for a given load center.
- Make sure you understand your truck's lifting capacity and the load center of the load you intend to lift.

COMBINED CENTER OF GRAVITY & STABILITY TRIANGLE

- A forklift's base of support can be represented by a triangle, which is often called the "stability triangle."
- The combination of the center of gravity of the load and the center of gravity of the forklift will create a combined center of gravity. The location of this combined center of gravity, relative to the forklift's base of support, will determine a forklift's stability.
- When the combined center of gravity of the lift truck and the load is within the stability triangle, the lift truck will be stable.
- When the combined center of gravity shifts outside of the stability triangle, the forklift will be unstable and may tip over.

SAFE OPERATING TECHNIQUES FOR MAINTAINING STABILITY

- In order to keep a powered industrial truck stable and avoid tip overs, operators must make it a point to understand how to operate the truck in a manner that keeps the center of gravity inside the stability triangle.
- When traveling, the momentum created by turning and the forces created by raising the load will move the center of gravity toward the outer edges of the stability triangle.
- This is why operators should travel with the load low to the ground and keep their speed slow and controlled to maximize stability.
- In addition, the forces created by raising a load will move the center of gravity closer to the leading edge of the stability triangle. This is why operators must always come to a complete stop before raising a load.
- Of course you should never turn with a raised load.
- Turning at a high rate of speed or moving with a raised load can cause the center of gravity to move beyond the base of support, making the lift truck unstable and more likely to tip over.
- Inclined surfaces are also particularly dangerous. When traveling on a slope or incline always travel straight up or down, do not travel at an angle and avoid turning.
- Also, when the truck is loaded, keep the load uphill. This means you should back down a ramp when carrying a load.

LIFTING & PLACING LOADS

- Operators must also make it a point to lift and place loads properly to prevent injuries and property damage.
- First, make sure that the load is secure and does not exceed the lifting capacity of the lift truck.
- Then position the truck and forks so the forks can enter the pallet opening.
- Drive forward until the pallet is seated against the mast, and then lift the load a few inches off the floor.
- Once lifted, tilt the load back slightly. Seating the load against the mast and tilting the load increases stability.
- Before backing out, make sure you have safe clearance behind and around the truck and that no pedestrians are behind you.
- If it is safe to move, backup until the forks are clear of the pallet.
- When placing a load onto a rack, remember to come to a complete stop before raising the load to the appropriate height.
- Look around and behind you before backing out. Come to a complete stop as soon as the forks are clear of the pallet and rack, then lower the forks to a safe travel level before proceeding.
- When removing a load from a rack, be sure to come to a complete stop as soon as the load is clear of the rack. Then lower it to a safe travel level before proceeding.
- When finished with the forklift, park it in an approved area.
- When leaving the forklift unattended, lower the forks to the floor, set the parking brake and remove the key.

SAFE DRIVING TECHNIQUES

- When powered industrial trucks strike pedestrians or collide with fixed objects or other vehicles, serious injury or property damage will occur. This is why operators of powered industrial trucks must always practice safe driving techniques.
- As you travel along your route, look forward and along your travel path.
- Keep your load low to the ground so it will not block your view.
- If you must travel with a load that obstructs your line of sight, turn around and drive in reverse so you can travel with an unobstructed view.
- When following other vehicles, maintain a three-truck distance between you and the one in front of you.
- Be very cautious when turning, especially in tight quarters. Remember that the rear end of the truck will swing wide and in the opposite direction of the turn. Many incidents occur when the rear end strikes something or someone while turning.
- Make a complete stop at all intersections, sound your horn and look both ways for vehicle traffic or pedestrians.
- Keep in mind that pedestrians always have the right of way.
- Never drive your vehicle directly towards a person standing in front of a fixed object and never allow anyone to be under a raised load.
- Do not allow anyone to ride on the forklift and never use the forklift to raise personnel on the forks unless it is on an approved maintenance work platform.

LOADING DOCK & TRAILER PRECAUTIONS

- Loading docks are often the scene of many tragic forklift incidents. You must use extreme caution when operating your vehicle near loading docks or in trailers.
- Before loading or unloading a vehicle, make sure its wheels are chocked.
- If the trailer isn't attached to a truck, make sure jack stands are in place to keep it stable.
- If a dock locking system is used, make sure it is engaged and secured properly.
- Before entering a trailer with a forklift, inspect the flooring to make sure it is in good condition and can support the weight of the lift truck and load.
- Proceed slowly when moving in and out of trailers. Your eyes may need to adjust to changing light conditions.
- Always keep the lift truck a safe distance from the edge of the loading dock and keep a sharp look out for other forklifts, pedestrians and obstacles.
- Loading docks can be very busy and safe operation requires the operator's undivided attention.