
Training Curriculum

Lift Truck

Training

TABLE OF CONTENTS

Training Goal:	2
Safety Responsibility	2
Module A: Regulatory requirements	2
Module B: Training focus	4
Module C: Truck information	5
Module D: Workplace conditions and the vehicle	6
Module E: The institution's disciplinary policy	6
Module F: Safety check	7

Institution Training

Lift Truck Training

Training Goal:

Training of all operators on the safe and proper use of lifts.

Safety Responsibility:

Ensuring all lift operators are trained employees who can drive the lift safely.

Module A: Regulatory requirements

Present, discuss, and explain the regulatory requirements.

Contents: Lecture on powered industrial trucks (including forklifts) emphasizing the important rules of lift truck operation.

The standard defines a powered industrial truck as a mobile, power-driven vehicle used to carry, push, pull, lift, stack, or tier material. Vehicles included are commonly referred to as:

- High lift trucks, counterbalanced trucks, cantilever trucks, rider trucks, forklift trucks;
- High lift platform trucks;
- Low lift trucks, low lift platform trucks;
- Motorized hand trucks, pallet trucks;
- Narrow aisle rider trucks, straddle trucks;
- Reach rider trucks;
- Single side loader rider trucks;
- High lift order picker rider trucks;
- Motorized hand/rider trucks; and
- Counterbalanced front/side loader lift trucks.

Affected workers

Operators of forklift trucks include workers employed as designated truck operators as well as those who might operate the trucks as part of another job. These alternate users include shipping and receiving clerks, order pickers, maintenance personnel, and general temporary workers.

Each prospective operator must be trained on the type of forklift vehicle that he/she will be operating on the following hazards:

Unstable loads

Each type of truck presents different operating hazards. A sit-down, counterbalanced high-lift rider truck is more likely than a motorized hand truck to be involved in a falling load accident, because the sit-down rider trucks can lift loads much higher, making them prone to tip over if the load is too heavy or imbalanced.

Tipovers

The method or means to prevent an accident and to protect employees from injury varies for different types of trucks. Operators of sit-down rider trucks are often injured in tipover accidents when they attempt to jump clear of the vehicle as it tips over. Because the operator's natural tendency is to jump downward, he or she lands on the floor or ground and is then crushed by the vehicle's overhead guard. Therefore, operators of sit-down trucks need to be trained to remain in the operator's position in a tipover accident and to lean away from the direction of fall to minimize the potential for injury.

On the other hand, when a stand-up rider truck tips over, the truck operator can exit the vehicle by simply stepping backward, perpendicular to the direction of the vehicle's fall, to avoid being crushed. In this situation, the operator usually should attempt to jump clear of the vehicle, and should be trained accordingly.

Speed

Driving a forklift at excessive speed can result in loss of control, causing the vehicle to skid, tip over, or fall off a loading dock or other elevated walking or working surface. This condition can be made more dangerous because the load being carried sometimes partially obscures the operator's vision.

A vehicle that is out of control or being operated by a driver whose view in the direction of travel is restricted can strike an employee, run into a column or other part of the building, or strike stored material, causing the material to topple and injure employees in the area.

Stability

Other characteristics of a powered industrial truck that affect safe truck operation are: the truck's tendency to become unstable; its ability to carry loads high off the ground; and its characteristic mode of steering, i.e., with the rear wheels while being powered by the front wheels.

Moving loads upward, downward, forward, and backward causes a shift of the center of gravity and can adversely affect the vehicle's stability. When a load is raised or moved away from the vehicle, the vehicle's longitudinal stability is decreased. When the load is lowered or moved closer to the vehicle, its longitudinal stability is increased.

Trainer's Notes: Point out that forklifts have varied purposes, and maintenance and skill requirements.

Module B: Training focus

Gear the training to your specific workplace

Contents: Lecture and use hands on practical lift truck exercises.

- be based on the type of vehicles an employee will actually operate,
- emphasize features of the workplace which affect operation, and
- include the following "rules of the road":
 - watch where you are going,
 - only operate in designated areas,
 - obey speed limits,
 - keep three vehicle lengths away from other vehicles,
 - slow down at all intersections,
 - the pedestrian always has the right of way,
 - no horse play is allowed,
 - no riders are allowed--not on the forks, not on the seat, not on the back,
 - always keep arms and legs inside the vehicle,
 - face the direction of travel,

Cover the rules for leaving the vehicle:

- When you leave the forklift but remain within twenty-five feet of the truck, completely lower the load engaging means unless it supports an elevated platform, put controls in neutral, and set the brakes to prevent movement,

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- When you leave a vehicle unattended, shut off the power, set the brakes, bring the mast to the vertical position, and completely lower the load engaging means, and put controls in neutral,
 - When you leave the vehicle on an incline chock the wheels.

Cover loading and load carrying rules:

- Always check the maximum load capacity on the forklift nameplate,
- Do not load trucks in excess of their rated capacity,
- Do not move a loaded forklift until the load is safe and secure,
- Carry the load low enough to avoid hitting overhead obstructions such as doorways, pipes, electrical conduits, or sprinklers,
- Know the position of your forks at all times,
- Always be aware of overhead clearances always,
- Chock the wheels of a truck being loaded or unloaded,
- Stop completely before raising or lowering a load,
- Never travel with a load raised high,
- Do not operate a forklift with a leak in the fuel system.

Trainer's Notes: Include a lift truck obstacle course in training session.

Module C: Truck information

Discuss the following truck-related topics

Contents: Your lecture topics should include:

- The similarities to and differences from the automobile,
- Lift truck controls and instrumentation,
- Lift truck operation and maintenance,
- Steering and maneuvering visibility,
- Lift attachment adoption,
- Operation and limitations,
- Vehicle capacity and vehicle stability,
- Vehicle inspection and maintenance,
- Refueling or charging, recharging batteries,
- Warning or precaution listed in the operator's manual for the type vehicle which the employee is being trained to operate.

Trainer's Notes: Discuss battery charging and electrolyte spill clean-up.

Module D: Workplace conditions and the vehicle

Discuss the following workplace-related topics

Contents: Lecture on floor surfaces and/or ground conditions where the vehicle will be operated. Discuss the composition of probable loads, load stability, load manipulation, and load stacking and unstacking.

Trainer's Notes: You may want to have hands on activities dealing with these additional topics:

- Center of gravity is critical in preventing rollovers. Make your operators aware of this factor, specifically regarding the equipment they will use.
- This is also a good time to emphasize the importance of preventing stock damage caused by careless drivers. This is a major expense for many companies,
- Discuss pedestrian traffic, narrow aisles and other restricted places of operation, operating in classified hazardous locations, operating the truck on ramps and other sloped surfaces which would affect the stability of the vehicle.
- Inclines are a potential hazard in a plant environment, have the operator travel up and down with a load during the practical phase of training.
- Take the trainees to potential problem areas with heavy traffic and blind spots. Help them to get familiar with the areas they will be driving in.

Module E: The institution's disciplinary policy

Review the institution's disciplinary policy for infractions of these rules. The employees must understand the consequences if they choose to disregard safe behavior.

Contents: Lecture on facility enforcement policy

Trainer's Notes: Once your drivers have been trained, you will need to evaluate them every 3 years and retrain them as necessary.

Module F: Safety check

Describe how a safety check should be performed.

Contents: Discuss the process and hand out a safety check list.

Maintaining the forklift properly is just as important as driving safely. Although a regular maintenance schedule should be set up for lift trucks, you should always run down a safety checklist at the start of your shift. This check is not only visual, but it includes checking fluid levels, hydraulics, wheels and tires, brakes and any potential mechanical problems with the vehicle.

(1) BRAKES. Brakes are the single most common cause of lift truck accidents. Push the brake pedal in. It should have free travel before meeting resistance. Then, depress the pedal again and hold it for ten seconds. The pedal must hold solid and not be spongy or drift under pressure.

(2) STEERING. Steering is a vital maintenance concern. With the engine running, check if the steering wheel turns correctly both ways to its stops. The wheel should not feel loose and the pump should not squeal before reaching the stops.

The following checklist should be strictly adhered to before operating the vehicle:

- Check the fork pins and stops to make sure that they are in place.
- Check all cowlings and body parts.
- Check the wheels and tires for excessive wear.
- Look for any broken or loosened parts.
- Check the fuel level, crankcase oil level, radiator water level. Check the engine air cleaner, the fan belt, the hydraulic fluid level and the battery water level.
- Check the hour meter and record it. This is important for maintenance scheduling.
- With the engine running, check operation of the hour meter, headlights, taillights and warning lights.

Check the oil pressure gauge, the water temperature, ammeter, and sound the horn. Check the hydraulic controls and any other controls on the lift system.

Trainer's Notes: Present your institution's inspection and maintenance program, including samples of forms and inspection checklists to be used.