

# Health & Safety SOP: Forklift Safety

Owner Senior Vice President Security & Safety

Solutions

**Department** Health & Safety

Effective Date 12/2021

## **Purpose**

The purpose of this program is to prevent injury or property damage from the unsafe operation of powered industrial vehicles. The policy provides the fundamentals for the operation, use and maintenance of powered industrial trucks, including fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. This program has been developed to comply with 29 CFR 1910.178, Powered Industrial Trucks.

# **Responsible Staff**

Health & Safety personnel are responsible for overseeing the implementation of this policy.

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## **General Requirements**

#### Selection:

- Operators shall wear seatbelts while driving any forklift/powered industrial truck.
- If the load to be handled is such that it presents a hazard to the operator (for instance, boxes falling from a pallet during travel), the equipment will have a vertical load backrest.
- A vehicle used in dim areas of the plant will come equipped with its own light (including vehicles that are used to load semi-trucks).
- Nameplates and markings on powered industrial trucks should remain intact and should be maintained in legible condition. The manufacturer's written approval must be obtained for any modifications that affect truck capacity or safe operation. If a modification is made, the capacity, operation and maintenance instruction plates, tags or decals should be changed.
- Hi-Visibility vests will be worn by all operators and by all personnel on the loading dock.

### **Safety Guards**

The following safety guards should be provided on powered industrial trucks:

<u>Enclosure Guards:</u> All hazardous moving parts should be guarded, such as exposed gears and chain-and-sprocket drives. Tires should also be guarded to prevent objects from being propelled toward the operator.

<u>Overhead Guard</u>: An overhead guard should be provided where there is a danger of falling objects or where loads are lifted higher the operator's head. These guards should extend beyond the operator's position.

<u>Vertical Load Backrest Extension</u>: A load backrest extension should be provided to protect the operator.

## **Battery Maintenance**

The following safety rules should be followed when charging/changing batteries:

- Batteries should be charged only in the battery charging area.
- Trucks should be properly positioned and the brake applied before attempting to change or charge batteries. Material handling equipment should be provided for handling batteries.
- Facilities should be provided for:
  - o Flushing and neutralizing spilled electrolyte
  - Fire protection
  - Protecting charging apparatus from damage by trucks
  - Ventilation for dispersal of fumes from gassing batteries
- When changing batteries, acid should be poured into water; water should not be poured into acid.
- Ensure that vent caps are functioning. The battery or compartment covers should be open to dissipate heat.



- Take precautions to prevent open flames, sparks or electric arcs in the battery charging area.
- Smoking is prohibited in the charging area.
- Keep tools and metallic objects away from the top of uncovered batteries.
- Make sure that reinstalled batteries are properly positioned and secured in the truck.

### **Diesel Fuel Handling and Storage**

Operators should refuel diesel engines daily. Operating a forklift with low fuel can lead to the sediment at the bottom of the fuel tank entering a forklift's engine, causing damage. When refueling, make sure you put the vehicle into park, lower the forks, and turn the vehicle completely off.

Precautionary actions should be followed.

- 1. Refueling should ONLY be performed at the designated location.
- 2. A "No Smoking" sign is posted right at the location.
- 3. Class B fire extinguishers are installed near the refueling area.
- 4. DO NOT smoke, use cellular phones while refueling. This safety measure is the same as refueling your car at the gas station.
- 5. When refueling, turn off the forklift first with its forks in lowered position. Diesel vapors are highly combustible, a small spark from the electrical of the forklift can ignite the vapors and cause fire.
- 6. Set the hand brake when the forklift is parked before refueling. This will make sure that the truck is in stationary position and will not move.
- 7. It is a good idea to wear proper PPEs like gloves and eye protection. Wear them at all times during this procedure. Gloves keep fuel out of your hands and protection to avoid spillage coming into your eyes.
- 8. When finish refueling, clean any overspill with a cloth.

Refueling a forklift is a routine operation at the workplace. You should not forget that the refueling is a hazardous. With responsible and safety conscious manner can definitely prevent accident from happening.

#### **Control of Noxious Gases and Fumes**

Concentration levels of carbon monoxide gas created by powered industrial trucks should not exceed levels specified in 29 CFR 1910.1000. Currently, the 8-hour time weighted average limit is 50 parts per million (ppm). Industrial hygiene sampling should be conducted to verify carbon monoxide levels.

To control the levels of carbon monoxide in the convention center, Liquefied petroleum gas (LPG) should not be idled in enclosed areas for long periods of time.



## **Routine Inspection and Maintenance**

- Operators will be held responsible for checking the mechanical condition of their trucks at the start of each shift or before initial use.
- Operators will be instructed never to make adjustments or repairs on trucks, but to promptly report any faulty mechanical condition to maintenance for repair.
- Maintenance employees will make a thorough mechanical inspection of all trucks at least once a month, at which time necessary repair and parts replacement will be made.
- If at any time a powered industrial forklift is found to be in need of repair, defective or in any way unsafe, the truck will be taken out of service until it has been restored to safe operating condition.
- Open flames will not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.
- Storage batteries used for electric-powered trucks require regular maintenance and charging. Adequate ventilation, emergency eyewash stations and other appropriate equipment will be provided. Employees will be trained in the proper procedures to handle and charge batteries and to handle acids.
- All powered industrial trucks should be maintained in safe operating condition at all times. Maintenance activities should include regular inspections, preventive maintenance and overhauls when necessary. Trucks that are not in safe operating condition should be removed from service until repairs are made. Repairs should be made only by authorized personnel.
- Powered industrial truck operators should inspect their trucks at the beginning of their shift. The operators should check the controls, tires, brakes, tires and other moving parts. A standardized operators' checklist should be used for these inspections. (A form is located at end of this section.)
- Documentation should be maintained of all inspection and maintenance activities. A file containing the maintenance and inspection records shall be maintained for each truck.

#### **Powered Industrial Vehicle Safe Operating Rules**

Because of the hazards involved with powered industrial vehicle operations, the following JJCC safe operating practices have been developed to ensure that authorized employees drive in a safe manner.

#### General

- Operators are required to wear seatbelts whenever the forklift is driven.
- Complete a safety inspection checklist at the start of each shift.
- Turn completely <u>prior to</u> backing up to make sure there is no one and nothing behind you, and <u>always</u> look in the direction of travel.
- Never drive a truck up to anyone standing in front of a fixed object.



- Never allow anyone to stand or pass under the elevated portion of your forklift, whether loaded or empty.
- Passengers are not permitted on forklifts.
- Do not place arms or legs between the uprights of the mast or outside the running lines of the forklift.
- Before dismounting from the forklift, you must fully lower the forklift blades and set the parking brake.
- When a forklift is left unattended, forklift blades must be fully lowered, controls neutralized, power shut off, brakes set and key(s) removed. A forklift is considered unattended when the operator is 25 ft. or more away from the vehicle, or when the operator leaves the vehicle and it is out of view.
- Never park or rest a forklift on ramps or inclines.
- Maintain a safe distance from the edge of ramps or platforms while on any elevated dock.
- Only the authorized mechanic may lift the hood of forklift.
- Do not use overhead guards for transporting materials.
- The maximum authorized speed for a forklift driven at the Javits Center is 5 mph.
- Always maintain a distance of three truck lengths from the forklift ahead.
- Pedestrians always have the right of way.
- Slow down and sound the horn at cross aisles and other locations where vision is obstructed.
- If a load being carried obstructs forward view, the operator is required to travel with the load trailing (i.e., IN REVERSE).
- Look in the direction of, and keep a clear view of the path of travel at all times.
- Grades (ramps, inclines) are to be ascended or descended slowly.
- When ascending and descending grades you must drive with the load upgrade.
- On all grades the load and forklift blades must be tilted back, and raised only as far as necessary to clear the surface.
- Under all travel conditions you must operate at a speed that will permit the forklift to be brought to a stop in a safe manner.
- Stunt driving and horseplay are not permitted.

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- Drive carefully and slowly over dock-boards or bridge-plates and never exceed their rated capacity.
- When negotiating turns, reduce speed to a safe level by turning the steering wheel in a smooth, sweeping motion.
  - Use crate clamps whenever necessary.

#### **Dock Safety - All Staff**

Only authorized personnel are permitted on the loading dock.





- Housekeeping personnel moving trash containers to and from compactors must transport those materials through the exhibit halls rather than along the loading dock.
- Forklift operators must maintain a slow, steady speed while working on the loading dock and sound horn when passing overhead doors and provide right of way to all pedestrians.

## **Traveling**

- All traffic regulations will be observed, including observing all stop signs and yield signs.
- The driver must always slow down and sound the horn at cross aisles and when approaching blind corners, intersections or other locations where vision is obstructed.
- A safe distance under normal conditions will be maintained approximately three vehicle lengths from the truck ahead.
- The driver should always keep to the right of the aisle when possible.
- If the load being carried obstructs forward view, the driver must travel in reverse.
- Grades will be ascended or descended slowly, keeping the load uphill. Never operate diagonally across an incline.
- Operators should never reach through the mast of a vehicle to adjust the load.
- Keep forks slightly tilted back so load is cradled by the backrest to aid in stabilizing loads when traveling.
- When traveling the forks must be just high enough to clear the floor.

## **Training Requirements**

### **Operator Training**

Operator training will be conducted prior to allowing anyone to operate an industrial vehicle, with recertification for experienced drivers every three years. Methods will be devised to train operators in the safe operation of powered industrial lift trucks. This training should include the following:

- All employees covered by this program will receive proper training, including operation
  and rules for safe driving. A completed license will serve as documentation of the
  training. A copy of this license will be maintained on file with the company.
- All training for drivers will include classroom and practical driving testing.
- Operators certified to drive vehicles should be given a certification card to be carried with them whenever operating a vehicle.

#### Nonoperator Training

Employees working in areas where powered industrial vehicles operate should be made aware of the following general rules:

- Never pass under the raised forks of a vehicle, whether they are loaded or not.
- Walk around forks of a vehicle, never over or between them.
- Never "hitch a ride" on someone else's vehicle.
- Allow vehicles the right of way.





