

A Snapshot in Safety and Risk

Forklifts: Inspection Requirements, Training, and Safety Information

Introduction:

Forklifts, or powered industrial trucks (PITs) or lift trucks, are used across various industries to move materials. They can lift, lower, or transport large or small objects on pallets, in boxes, or in crates. Forklifts can be ridden by the operator or controlled by a walking operator.

Even though operating a forklift may appear simple, there are considerable risks with nearly 100,000 forklift-related accidents each year, resulting in almost 100 fatalities annually. To make forklift operations safer, OSHA's standard [29 CFR 1910.178](#) requires, employers to provide training, certify that employees have been trained, and conduct regular inspections.



We will cover OSHA's requirements, as well as common hazards below.

Hazards:

There are many different types of powered industrial trucks, with its own operating hazards. For example, 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 truck can lift a load much higher than a hand truck. Workplace type and conditions are also contributing factors in hazards and accidents commonly associated with powered industrial trucks.

Many workers are injured when:

- (1) lift trucks are inadvertently driven off loading docks.
- (2) lifts fall between docks and an unsecured trailer.
- (3) they are struck by a lift truck.
- (4) they fall while on elevated pallets and tines.

Determining the best way to protect workers from injury largely depends on the use of the truck, proper selection, and other hazards associated with the work area and operations. It is the employer's responsibility to ensure that hazards are identified, exposures are controlled and operators are competent in the operation of the specific truck that they operated as outlined in [29 CFR 1910.178\(l\)\(1\)](#).

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Common Hazards:

- Blind Spots
- Improper use
- Unsecured loads
- Attachments
- Floor Conditions
- Fueling
- Speed
- Pedestrians
- Overhead Obstructions
- Seatbelts & Tethers



Factors that increase the risk:

- They can weigh up to 9,000 pounds, which is three times heavier than many cars.
- They can travel up to 18 mph.
- Unlike a car, forklifts only have brakes in the front, making them harder to stop.
- Forklifts are heavier in the rear to compensate for the heavy loads being carried in the front. This uneven weight distribution can make a forklift difficult to handle.
- A forklift is turned by the rear wheels, causing the rear end to swing outward. This increases the chance of tipping over during tight turns.
- Loads are carried in the front of a forklift, which can obstruct the view of the driver.
- Forklifts are often used to raise hefty loads to considerable heights, a combination that is always dangerous.

Inspections:



Industry best practices and OSHA regulations require forklifts to be inspected before the start of each shift. Unfortunately, some operators don't realize that they're not following OSHA requirements when they skip these inspections.

According to the OSHA regulation: "Industrial trucks must be examined before being placed in service and should not be put into service if the examination reveals any condition that could affect the vehicle's safety. Such examinations should be conducted at least daily. If industrial trucks are used around the clock, they should be examined after each shift. Any defects found should be reported and corrected immediately." OSHA Reg: [29 CFR 1910.178\(q\)\(7\)](#)

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Training:

Unlike an automobile, PITs are much heavier. And because the front wheels bear the load of what is being transported, the steering is rear-wheel driven. Turns cannot be taken too abruptly as this action may put the forklift at risk of a tip-over or spilled load. Thus, training is essential.

The Occupational Safety and Health Administration (OSHA) has put in place specific regulations regarding the training of forklift operators. These regulations apply to all employers who have forklifts in their workplace. Requirements include:



1. Formal instruction (lecture, discussion, interactive computer learning, video tape, written material) *and*
2. Practical training (demonstrations performed by training and practical exercises performed by the trainee) – *this cannot be completed online.*
3. Evaluation of operator's performance in the workplace – *this cannot be completed online.*

Operating forklifts requires specific skills. To ensure safety, the Occupational Safety and Health Administration (OSHA) has certification requirements in place. Before using powered industrial trucks, such as forklifts, employees must be trained and to OSHA standards.

Refresher training should be provided when an employee:

- Is observed not operating the PIT safely; or
- There has been an accident or near-miss incident; or
- The operator has been assigned to a different type of truck; or
- The operator received an evaluation revealing the operator is not operating the truck safely; or
- A condition in the workplace has changed that could affect the safe operation of the truck.

Important Note: An *evaluation* of each powered industrial truck operator's performance should be conducted every three years.

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OSHA forklift certification requirements are simple:

- Must be at least 18 years old.
- New operators must complete forklift training. Employers must certify that employees have been trained as outlined in the standard. Certification includes:
 - Name of the operator
 - Date of the training
 - Date of the evaluation
 - Identity of the person performing the training or evaluation
- Forklift operators must carry proof of authorization.
- Must be certified by the employer to operate the specific class vehicle.
- Trainees may only operate forklifts 1) under direct supervision of employees who have the knowledge, training, and experience to train operators and evaluate their competence; and 2) such operation does not endanger the trainee or others.

OSHA Violations

The most common OSHA forklift safety violations in 2023 were identical to 2022 and 2021.

Top 5 OSHA violations

1. Unsafe operation

Driving too fast, not following loading dock safety procedures, and driving too close to platform edges are some of the most common reasons for a citation when driving with an elevated load.



2. Failure to provide refresher training.

All forklift operators must undergo refresher training every three years, or sooner if they are involved in an accident or near-miss or if they are reported for reckless behavior. Additionally, forklift operators may need extra training if they are tasked with operating a different class of forklift, or if changes in the workplace introduce new hazards.

3. Missing/inadequate operator certification.

All forklift operators must have an OSHA-approved forklift certification for the class of forklift they use.

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4. Failure to remove unsafe trucks from service.

Whenever a forklift is found to be defective, in need of repair, or in any way unsafe, the truck must be taken out of service (lockout/tagout) until it is restored to a safe operating condition.

5. No pre-operation inspection.

Daily inspection checklists help keep your employees safe and can reveal minor issues before they become expensive repairs.

For more information and support

OSHA Powered Industrial Truck Regulation: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.178>

OSHA Powered industrial Truck E-tool: <https://www.osha.gov/etools/powered-industrial-trucks/training>

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Forklift Operator's Checklist

(Develop a checklist specific to your equipment from your Owner's Manual)

Vehicle #: _____ Date: _____ Operator: _____
 Hour Meter Readings: _____ Hours Today: _____ Total Hours: _____

Visual Checks	OK	Needs Repair
Fluid Levels		
Leaks- Hydraulic, Battery		
Fuel Level		
Damage (Retaining Pins, Guards, Warnings)		
Tire Condition, Pressure		
Lights and Signals		
Hour Meter		
Other Gauges		
Battery Restraint System		
Seat Belt		
Mirrors and Windshields		
Hand Grabs, Foot Rests, Stepping/Walking Platforms		
Other		
Operational Checks		
Horn, Warning Alarms		
Steering		
Service Brakes		
Parking Brake		
Hydraulic Controls		
Manuals, Capacity Plate		
Discharge Indicator		
Battery Load Test		

Comments: _____
 Inspected By: _____