



Powered Industrial Truck (Forklift) Safety Program

1910.178 OSHA Powered Industrial Trucks

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Introduction

Powered industrial trucks (PITs), also known as forklifts or lift trucks, are important tools in many workplaces. They perform a variety of material handling tasks and can facilitate moving, raising, lowering, or removing heavy or bulky materials or a number of smaller objects on pallets or in boxes, crates, or other containers. This makes it easier for the employee to move materials. During the movement of materials, there are numerous opportunities for injuries and property damage to occur. This program has been created to minimize the risk of injury to employees or bystanders and to avoid damage to university property. These requirements are established under OSHA Powered Industrial Trucks, 29 CFR 1910.178.

Scope

This program applies to the operation of all powered industrial trucks, motorized hand trucks, or other specialized industrial trucks by university employees. It may also be used as guidelines for contractors using powered industrial trucks engaged in university projects.

Definition

Powered Industrial Truck (PIT): Any mobile power-propelled truck used to carry, push, pull, lift, stack or tier materials. Powered industrial trucks can be ridden or controlled by a walking operator. Earth moving and over the road haulage trucks are not included in the definition. Equipment that was designed to move earth but has been modified to accept forks are also not included. Excluded are vehicles used for earth moving and over-the-road hauling. Commonly known as forklifts, pallet trucks, rider trucks, fork trucks or lift trucks.

Responsibilities

Safety and Risk Management

Safety and Risk Management has the primary responsibility for the implementation and enforcement of the Industrial Truck Safety Program and is responsible for the following:

- Developing, implementing, and evaluating the Industrial Truck Safety Program to ensure compliance.
- Providing initial and periodic training of employees on the safe operation of equipment.
- Maintaining the training documentation of employees who complete training sessions.

Supervisors

Supervisors in support and administrative areas are responsible for providing the necessary direction and support to ensure the effective implementation of the Industrial Truck Safety Program for their work areas. Supervisors are responsible for the following:

- Ensuring that employees have been trained and evaluated on the specific types of powered industrial trucks that they will be operating.
- Ensuring that employees inspect powered industrial trucks at the beginning of each work shift and complete the appropriate inspection forms.
- Ensuring that proper maintenance according to the manufacturers' recommendations is performed on the powered industrial truck and any hazards identified are corrected.

- Ensuring that employees comply with all OSHA regulations while operating a powered industrial truck.

Employees

Affected Employees are responsible for the following:

- Completing the required safety training course for powered industrial trucks.
- Operating all powered industrial trucks in a safe manner consistent with their training.
- Inspecting powered industrial trucks at the beginning of each work shift and completing the appropriate inspection forms.
- Reporting all equipment malfunctions and/or maintenance needs to their supervisor immediately.
- Complying with all OSHA regulations while operating a powered industrial truck.

Evaluator Requirements

All operator training and evaluation shall be conducted by a person who has the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence. The evaluator is required to demonstrate the use of the forklift and assist the operator in locating the functions of the forklift and assist the operator in locating the functions of the forklift for employee who are unfamiliar with forklifts or possess only a few skills in the operation of a forklift.

Operator License Requirements

All employees who operate a powered industrial truck as part of their job must be at least eighteen (18) years of age and successful completed either online or classroom training and practical training

It is a violation of Federal law for anyone UNDER 18 years of age to operate a forklift or for anyone OVER 18 years of age who is not properly trained and authorized to do so.

Training

Only trained and authorized operators shall be permitted to operate a powered industrial truck. Training will consist of either online or classroom safety training and hands-on training, including a skills test performed on the specific powered industrial truck that the employee will operate. If there are two or more types of powered industrial trucks that the employee will be operating, then the employee must have practical training for each different powered industrial truck they will be operating.

Training is to be done prior to:

- Before the employee operates a powered industrial truck
- When an employee is assigned to a different truck
- Before a new hazard is introduced into the work environment
- After any accident
- As deemed necessary by a qualified person

All employees are required to be retrained at least once every three (3) years on the operator's performance of using a powered industrial truck.

Contractors are not allowed to operate any university powered industrial truck under any circumstances.

Any employee who refuses such training will not be permitted to operate a power industrial truck on university property.

Powered industrial truck training must include the following information:

- Safe Operation Instructions
- Differences between powered industrial trucks and automobiles
- Controls and instrumentation
- Inspection
- Engine or motor operation
- Steering and maneuvering
- Visibility
- Fork attachment: use and limitations
- Vehicle capacity
- Vehicle stability
- Refueling and/or recharging
- Operating limitations
- Surface conditions
- Loading and unloading
- Pedestrian traffic
- Hazardous locations in which the equipment will be operated
- Ramps and sloped surfaces
- Any unique or potentially hazardous conditions that could affect safe operation

Once all powered industrial truck training is complete, the employee will be issued a Forklift License Certificate that expires three (3) years from the date of it is issued. The certification shall include:

- Name of the operator
- Date of the training
- Date of the evaluation
- The identity of the person(s) performing the training or evaluation

Employee Qualifications

Employees must demonstrate their driving competence by passing a written test and completing a practical driving test for powered industrial trucks. Employees must demonstrate acceptable competence and knowledge in performing each task.

Refresher Training

Refresher Training in relevant topics shall be provided to the employee when:

- The operator has been observed to operate the vehicle in an unsafe manner.
- The operator has been involved in an accident or a near miss incident.
- The operator has received an evaluation that reveals that the operator is not operating the truck safely.
- The operator is assigned to drive a different type of powered industrial truck.
- A condition changes in the workplace that could affect the safe operation of the powered industrial truck.

- Shall be provided at least every three (3) years if none of the above situations occur.

Inspection and Maintenance

- Each powered industrial truck will be inspected before each daily shift ([Appendix A](#)).
- Daily inspection records shall be kept on file with the supervisor of the power industrial truck for thirty (30) day intervals.
 1. To ensure all essential features of the truck are inspected routinely.
 2. This is to provide documentation that inspections are occurring as required.
- A maintenance log will be kept that identifies repair needs and corrective actions taken for each powered industrial truck. Documentation shall be kept with the supervisor onsite of the powered industrial truck.
- If repairs are required on a powered industrial truck such that it cannot be safety operated, it must be tagged “Out of Service” and taken out of service until the repairs have been completed.
- Maintenance or repair activities are to be performed by a qualified service technician.
- After repairs have been completed, the powered industrial truck will be operated to inspect that repairs have been completed and the equipment is safe for normal operation.
- Powered industrial trucks will be kept in clean condition, free of dirt, excess oil, and grease.

Operations

Employees shall follow the powered industrial truck operations:

- Review operating instructions, warning, and precaution for the type of truck being operated.
- When a powered industrial truck is left unattended, the equipment will be put into neutral, the emergency brake will be set, and the power will be shut off. When the powered industrial truck is parked on an incline, the wheels will be blocked.
- A powered industrial truck will be considered unattended when the operator is 25 feet or more away or when the vehicle is not in view.
- When the operator has dismounted the powered industrial truck and is within 25 feet of the truck, the load will be lowered, the controls will be neutralized and the brakes will be set.
- Powered industrial trucks will not be used to open or close freight doors.
- Floors of truck trailers will be checked for breaks and weaknesses before powered industrial trucks are driven on them.
- Riders are prohibited on forklifts and in cargo area of powered industrial trucks.
- Persons are not allowed to pass under raised forks.
- When an employee is being lifted by a powered industrial truck, a safety platform will be used that is firmly secured to the lifting carriage and/or forks. An operator will remain at the controls of the truck while the employee is being lifted.
- Propane tanks will not be replaced while the engine is running.
- Oil or other fluids spilled on the floor will be cleaned up immediately.
- Only stable and safely arranged loads will be handled.
- Only loads within the rated capacity of the powered industrial truck will be handled.
- Only attachments approved and listed by the manufacture may be used. No “in-house” constructed attachments can be used.
- Horseplay or unsafe driving is not tolerated.

- Accidents are immediately reported to the direct supervisor and the Safety and Risk Management Office.

Standard Safety Equipment

- Seatbelts that are installed and must be utilized on each powered industrial truck.
- Powered industrial trucks must have a functional horn and fire extinguisher.
- Powered industrial trucks must have a nameplate listing lift category, load rating, and load center prominently affixed.
- Powered industrial trucks must have a driver cage installed to protect the employee from falling materials.

Traveling

Employees shall follow these powered industrial truck travel requirements:

- Safe speed limits will be observed, and under all travel conditions a powered industrial truck will be operated at speeds that will permit it to be brought to a stop in a safe manner.
- Three truck lengths (or two seconds) will be maintained between powered industrial trucks in operation. The powered industrial truck will be kept under control at all times.
- When vision is obscured, the operator will slow down and sound the horn.
- If the load blocks the operator's view, the powered industrial truck will be driven in the direction that provides the best visibility.
- The operator will keep a clear view of the path of travel.
- The loaded powered industrial truck will be driven with the load up grade when driving on ascending or descending grades greater than 10%.
- Dock boards and bridge plates will be properly secured before they are driven over.

Securing the Load

Employees shall follow these powered industrial truck load securing requirements:

- Always place the load against the backrest to help stabilize the load.
- Always place the larger or heaviest part of the load closest to the backrest.
- If carrying wide loads such as lumber or steel, adjust the forks as wide as possible to support the load.
- Use clamps or wooden blocks to keep road objects such as pipes from rolling during transport.
- Use shrink wrap or tape as needed to secure items stacked on pellets.
- Never have a person walk in front of the forklift to stabilize a load while the truck is being driven.
- Check all wooden pellets for damage or defects before using.

Conducting the Lift and Carry

Employee shall follow these powered industrial truck load lifting and carrying requirements:

- Always evaluate the situation before making a lift.
- Always pickup an object with the heaviest side against the backrest
- If the load is too large to see around, always drive in reverse.

- Always carry the load as low as possible and watch out for overhead obstructions, such as but not limited to light fixtures, sprinkler head, or building support beams etc.

Appendix A: Daily Checklist

POWERED INDUSTRIAL TRUCK DAILY CHECKLIST (Propane/Diesel/Gasoline)



Safety and Risk Management



Pre-operation Inspection Checklist
(Fuel Powered Forklifts)

Forklift Truck MFG _____ Model _____ Serial Number _____ Department _____

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
KEY OFF - Procedures							
Overhead guard							
Hydraulic cylinders							
Mast assembly							
Lift chains and rollers							
Forks							
Tire condition (damage/inflated)							
Fluids leaking							
Fuel System Fittings/Hose/Fuel Gauge							
Propane tank bracket positioned/locked down							
Check fire extinguisher							
KEY ON - Procedures							
Check all gauges/warning lights							
Hour meter							
Battery voltage indicator							
Test standard equipment							
Steering							
Brakes							
Front, rear, and brake lights							
Horn							
Seat (including seatbelt)							
Operation of attachments							
Pre-inspection date >>>>>	_____	_____	_____	_____	_____	_____	_____
Operator's Printed Initials >>>>>	_____	_____	_____	_____	_____	_____	_____

Instructions: Operator must check off each item as having been checked "OK" and safe to use during daily inspection prior to operation.

Comments:

Appendix B: Forklift Operator Evaluation Form



Safety and Risk Management

Forklift Operator Evaluation Form

Instructions: Use this checklist during the field session to evaluate operator proficiency. It can also be used for periodic evaluation to ensure that operators are continuing to operate forklifts properly.

Operator Name		Evaluator Name				
Date of Evaluation	Equipment Operated					
OPERATOR BEHAVIORS		Good	Fair	Poor	N/A	Comments
Pre-use Inspection						
1.	Follow the Operator's Daily Checklist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Look for damage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Document all findings on the checklist.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Picking Up a Load						
1.	Square up on the center of the load.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Stop with the fork tips about 1 foot from the load.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Clear personnel from the area near the load.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Level the forks; then slowly drive forward until the load contacts the carriage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Lift the load carefully and smoothly until it is clear.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Tilt the mast back slightly to stabilize the load.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Look over both shoulders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.	After out and stopped, lower the load to travel height.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Traveling						
1.	Do not raise or lower the load and forks while traveling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Maintain a safe speed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Observe all traffic rules, warning signs, floor load limits and overhead clearances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Keep arms and legs inside the forklift.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Follow other vehicles at a safe distance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

6.	Slow down when cornering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Use the horn to alert others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.	Travel with the load facing uphill while on a ramp or incline.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.	Stop smoothly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Putting Down a Load

1.	Make sure there is sufficient clearance for the load.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Clear personnel from the area near the load.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Square up to the location; then stop about 1 foot away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

OPERATOR BEHAVIORS

Good Fair Poor N/A

Comments

Putting Down a Load (continued)

4.	Raise the load to placement level.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	Move slowly forward.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	If the load is on a pallet, lower it into position and lower the forks further.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7.	Look over both shoulders before backing out.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8.	Back straight out until the forks have cleared.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9.	Lower the forks to traveling position.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Parking

1.	Fully lower the forks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2.	Neutralize the controls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3.	Set the brakes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4.	Turn off the power.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5.	If parked on an incline, block the wheels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6.	Park only in authorized areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

FINAL EVALUATION

<input type="checkbox"/>	Based on my evaluation, the operator has successfully completed the evaluation and is qualified to operate the following equipment:	Equipment Type
<input type="checkbox"/>	Based on my evaluation, the operator has not demonstrated competence in operating the following equipment:	Equipment Type
Evaluator Signature:		Date:
Employee Signature:		Date: