

# Weber State University

## Powered Industrial Truck (PIT) Safety Program

29 CFR 1910.178



**WEBER STATE UNIVERSITY**  
Environmental Health & Safety

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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 Weber State University (WSU) property. These requirements are established under OSHA Powered Industrial Trucks, 29 CFR 1910.178.

## Scope

This program applies to the operation of all PITs, motorized hand trucks, or other specialized industrial trucks by WSU employees. It may also be used as guidelines for contractors using PITs 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 an operator.

**Operator:** Any WSU employee who has received the proper classroom instruction and passed a skills assessment provided by a person who has the knowledge, training, and experience to train PIT operators and evaluate their competence.

## Responsibilities

### Environmental Health and Safety

Environmental Health and Safety Office has the primary responsibility for the implementation and supervision of the Powered Industrial Truck Safety Program and is responsible for the following:

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

### Supervisors

Supervisors in areas where PITs are used are responsible for providing the necessary direction and support to ensure the effective implementation of the Powered 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 PIT(s) that they will be operating.
- Ensuring that employees inspect PITs at the beginning of each work shift (or prior to use) and complete the appropriate inspection forms.

- Ensuring that proper maintenance according to the manufacturers' recommendations is performed on the PIT and any hazards identified are corrected.
- Ensuring that employees comply with all OSHA regulations (29 CFR 1910.178) while operating a PIT.

## Operators

All operators are responsible for the following:

- Completing the required safety training course for PITs.
- Operating all PITs in a safe manner consistent with their training.
- Inspecting PITs at the beginning of each work shift (or prior to use) and completing the appropriate inspection forms.
- Immediately report all equipment malfunctions and/or maintenance needs to their supervisor.
- Complying with all OSHA regulations while operating a PIT.

## Evaluator Requirements

All operator training and evaluations shall be conducted by a person who has the knowledge, training, and experience to train PIT operators and evaluate their competence. Prior to operator evaluation, the potential operators should receive classroom instruction and practice in their normal work environment. The evaluator is required to witness the safe use and competent operation of the PIT.

## Operator License Requirements

All employees who operate a PIT as part of their job must be at least eighteen (18) years of age and successfully complete classroom training, practical training, and pass a skills assessment test by an evaluator. It is a violation of federal law for anyone UNDER 18 years of age to operate a PIT, 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 PIT. Training will consist of classroom safety training and hands-on training, including a skills test performed on the specific type of PIT that the employee will operate. If there are two or more types of PITs i.e., electric, diesel, straddle stacker, etc., that the employee will be operating, then the employee must have practical training for each different type they will be operating.

Training is to be done prior to:

- The employee operating the PIT
- When an employee is assigned to a different PIT
- Before a new type of physical hazard is introduced into the work environment

Or:

- After any accident or near miss incident
- If deemed necessary by a supervisor

All employees are required to be retrained at least once every three (3) years on the operator's performance of using a PIT. Contractors are not allowed to operate any WSU PIT under any circumstances. Any employee who refuses such training will not be permitted to operate a PIT on WSU property.

Powered industrial truck training must include the following information:

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

Once all PIT training is complete, the employee will be issued an Equipment Operator Authorization card by the Environmental Health and Safety Office that expires three (3) years from the date of its issue. The certification shall include:

- Name of the operator
- The organization issuing the certification
- Date of the training
- The expiration date of the certification

### Employee Qualifications

Employees must demonstrate their driving competence by passing a written test and completing a practical driving test. 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 PIT safely.
- The operator is assigned to drive a different type of PIT.
- A condition changes in the workplace that could affect the safe operation of the PIT.
- Shall be provided at least every three (3) years if none of the above situations occur.

## Inspection and Maintenance

- Each PIT will be inspected before each daily shift or prior to each use if not used on a daily basis (Appendix A).
- Inspection records shall be kept on file with the supervisor of the PIT.
  1. To ensure all essential features of the truck are inspected routinely.
  2. To provide documentation that inspections are occurring as required.
- A maintenance log will be kept that identifies repair needs and show corrective actions taken for each PIT. Documentation shall be kept with the supervisor on site of the PIT.
- If repairs are required such that the PIT cannot be safely 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.
- Powered industrial trucks will be kept in clean condition, and free of dirt, excess oil, and grease.

## Operations

Employees shall follow the PIT operations/user manual guidelines:

- Review operating instructions, warnings, and precautions for the type of PIT being operated.
- When a PIT 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 PIT is parked on an incline, the wheels will be chocked.
- A PIT 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 PIT and is within 25 feet of the truck, the load will be lowered, the controls will be neutralized and the brakes will be set.
- Floors of truck trailers will be checked for breaks and weaknesses before powered industrial trucks are driven on them.
- Riders are prohibited unless the PIT is designed for passengers and has safety harnesses.
- Persons are not allowed to pass under raised forks.
- Employees will not be lifted by the PIT unless a manufacturer-purchased attachment that is designed for the specific PIT is used.
- 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 PIT will be handled.
- Only attachments approved and listed by the manufacturer may be used. No “in-house” constructed attachments can be used.
- Horseplay or unsafe driving is not tolerated and can result in the revocation of the operator’s certification.
- Accidents shall be immediately reported to the supervisor and Environmental Health and Safety Office.

## Standard Safety Equipment

- Seatbelts that are installed must be utilized on each PIT.
- Powered industrial trucks must have a functional horn and fire extinguisher.
- Powered industrial trucks must have a capacity plate listing lift category, load rating, and load center prominently affixed.

- Powered industrial trucks must have a driver cage (in sit-down types) installed to protect the operator from falling materials.

## Traveling

Operators shall follow these PIT travel requirements:

- Safe speed limits will be observed, and the PIT 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 PITs in operation. The PIT 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 PIT 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 PIT will be driven with the load upgrade (uphill) 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

Operators shall follow these PIT 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 shrink wrap or tape as needed to secure items stacked on pallets.
- Never have a person walk in front of the PIT to stabilize a load while the PIT is being driven.
- Check all wooden pallets for damage or defects before using them.

## Conducting the Lift and Carry

Operators shall follow these PIT load lifting and carrying requirements:

- Always evaluate the situation before making a lift.
- Always pick up 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 heads, building support beams, etc.

## Appendix A



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Environmental Health & Safety

### Powered Industrial Truck Pre-Use Inspection

<b>Inspection Date:</b>		<b>Performed By:</b>	
<b>Make/Model:</b>		<b>Department:</b>	

#### Visual Checks

Inspection Sequence	Pass/Fail	Notes/Comments
<b>Damage</b> - Bent, dented, broken parts		
<b>Leaks</b> - Fuel, oil, radiator, hydraulics		
<b>Tires/Wheels</b> - drive wheels steer wheels, load wheels, castors, etc.		
<b>Forks</b> - Secure, not bent, cracked or badly worn		
<b>Chains, Cables, and Hoses</b> - Whole and in place		
<b>Battery</b> - Battery cable and connector condition. Cable routing (not outside of PIT). Battery retainer securely in place. Insulation and wires in good condition.		
<b>Guards</b> - All guards in place and condition. Overhead, load backrest, etc.		
<b>Mechanical Safety Devices</b> - Operator harness or seat belt, fire extinguisher, data/capacity plate, warning labels, etc. in good condition.		
<b>Operator Compartment/Controls</b> - All controls, steer tiller, pedals, etc. in good condition.		

#### Operational Checks

Inspection Sequence	Pass/Fail	Notes/Comments
<b>Power Up</b> – Turn on key. All indicator lights and alarms are working.		
<b>Electrical Safety Devices</b> – Horn, audible signals, entry bar, flashing lights, indicator lights, etc. working properly.		
<b>Steering</b> – No binding, no excessive play.		
<b>Brakes/Travel Controls</b> – Brakes work properly, stop truck in proper distance.		
<b>Parking Brake</b> – Securely engages and keeps truck stationary.		
<b>Hydraulic Controls</b> – Test all hydraulic functions for smooth and proper operation and no unusual noise.		
<b>Attachments</b> – Manufacturer purchased attachments only. Function properly, no unusual noises, secures properly.		

**Comments:**



