

## (16) Powered Industrial Trucks

### (16.1) Introduction and General Requirements

- **Introduction**

Powered Industrial Trucks (PITs) like forklifts, pallet jacks, and platform lift trucks are essential equipment in many industrial settings. However, they also present substantial safety risks if not handled correctly. To ensure safe operation, this safety manual section lays out guidelines for the effective and safe use of PITs, according to the Occupational Safety and Health Administration (OSHA) regulations. This includes training and certification of operators, inspection and maintenance procedures, and operational safety guidelines.

- **General Requirements**

The use of any powered industrial trucks within our company premises will adhere strictly to OSHA regulations. All drivers must be trained, evaluated, and certified. Any modifications or alterations to a PIT that could affect its safety and operation need prior written approval from the manufacturer.

### (16.2) Operator Training and Certification

- **Training**

All PIT operators must complete a comprehensive training program that includes various components. Training should include:

**Formal instruction:** This can include lectures, discussions, interactive computer learning, video tapes, and written material. The OSHA website provides resources for training, such as the "Powered Industrial Trucks - Operator Training" booklet, OSHA Publication 3125.

**Practical training:** This involves demonstrations by the trainer followed by exercises performed by the trainee. These sessions should be performed on the specific type of PIT that the employee will be operating.

#### **Training Content**

The content of the training should be comprehensive and applicable to the workplace. This should include:

- Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate.

- Differences between the truck and the automobile.
  - Truck controls and instrumentation.
  - Engine or motor operation.
  - Steering and maneuvering.
  - Visibility.
  - Fork and attachment adaptation, operation, and use limitations.
  - Vehicle capacity and stability.
  - Any vehicle inspection and maintenance that the operator will be required to perform.
  - Refueling or charging and recharging of batteries.
  - Operating limitations.
  - Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicles that the employee is being trained to operate.
- For additional resources, OSHA's website contains training resources such as eTools, which provide illustrated, interactive training materials for a variety of topics including powered industrial trucks.

**Evaluation:** Upon completion of the training, an evaluation of the operator's performance must be conducted in the workplace to ensure the operator can handle the machine safely.

- **Certification**

Once an employee has successfully completed the training and passed the performance evaluation, they will be certified to operate PITs. This certification is valid for three years, after which a refresher course and evaluation are required.

If an operator is observed operating a truck in an unsafe manner, receives an evaluation that reveals unsafe operation, had a near-miss or accident, or is assigned to drive a different type of truck, refresher training must be provided.

**Training Documentation**

Employers must maintain accurate and current records of all operator training, evaluations, and certifications. This documentation should include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

**Trainer Qualifications**

The trainer must have the necessary knowledge, training, and experience to train PIT operators and evaluate their competence. An example of a qualified trainer would be a person who has experience or training in both the topics he or she is teaching and in how to teach those topics.

## **(16.3) Inspections**

### **Introduction**

A thorough inspection of powered industrial trucks should be completed by a trained and qualified individual at the start of each shift. Trucks should not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such trucks should be removed from service until the **condition is corrected.**

### **Pre-Operation Inspection**

Before any powered industrial truck is used, the following systems and parts should be checked:

- **Fluids**

Check engine oil, hydraulic fluid, coolant, and fuel levels. Each should be filled as per the manufacturer's instructions and should not be leaking.

- **Tires**

Inspect tires for damage or excessive wear. Pneumatic tires should be checked for the proper air pressure.

- **Operator Compartment**

The seat belt, safety switches, controls, and steering wheel should all be inspected. Ensure mirrors and the operator's manual are in place.

- **Lights and Alarms**

Headlights, brake lights, backup alarms, and warning lights should all be functioning properly.

- **Forks and Mast**

Check for visible defects and proper operation of the lifting and tilting mechanisms.

### **Operational Inspection**

The operational inspection includes checks that are carried out while the truck is running:

- **Brakes**

Test the brakes during operation. Check parking brakes as well.

- **Steering**

Check for smooth steering control and response.

- **Horn**

Ensure the horn is working and audible.

- **Backup Alarm**

The backup alarm should sound automatically and be loud enough to be heard over the ambient noise.

- **Controls**

Test the lift, tilt, and any attachments for proper operation.

### **Post-Operation Inspection**

Finally, a post-operation inspection should be done after the shift:

- **Clean**

Remove trash, dirt, and debris.

- **Check for New Damage**

Look for and report any new damage or issues noticed during operation.

- **Secure**

Park in the designated area, lower forks to the ground, and set the parking brake.

- **Report**

Record and report all inspections, including issues found and actions taken.

It's important to note that this is a generalized inspection guideline and specific models may have different requirements. Always refer to and follow the manufacturer's guidelines for inspection and maintenance.

## **(16.4) Operations**

### **Introduction**

The operation of powered industrial trucks should always be conducted by certified personnel who have undergone the necessary training. Operators should adhere to all the company's safety protocols and the truck manufacturer's operating instructions.

### **Before Operating**

- **Pre-Operation Inspection**

Before operating the truck, the operator must conduct a pre-operation inspection as outlined in the inspection procedures. Any issues or irregularities should be reported and addressed before the truck is put into service.

- **Mounting and Dismounting**

Operators should always maintain three points of contact (one hand and two feet, or two hands and one foot) when mounting or dismounting the truck. Use the handhold and step, not the steering wheel or controls, to pull yourself up.

### **While Operating**

- **Load Handling**

Always check load stability before and during operation. Loads should be evenly distributed and secured to prevent sliding or

toppling. Forks should be placed under the load as far as possible to ensure the load is fully supported.

- **Traveling**

When traveling, the load should be tilted back and kept low to the ground for stability. The truck should be operated at a speed that will permit it to be brought to a stop in a safe manner. When going downhill, drive in reverse with load uphill. When going uphill, drive forward with the load uphill.

- **Pedestrians**

Operators should always be aware of and yield to pedestrians. Use the horn at intersections, corners, and wherever vision is obstructed. If a pedestrian appears to be unaware of the truck, stop and sound the horn.

- **Overhead Clearance**

Check overhead clearance before lifting or stacking loads. Be aware of overhead installations (lights, sprinkler systems) and consider the height of a load on an elevated pallet or its potential elevated height on the forks.

### **After Operating**

- **Post-Operation Inspection and Shutdown**

At the end of a shift or when parking the truck, lower the forks to the ground and apply the parking brake. Perform a post-operation inspection as outlined in the inspection procedures, and report any issues found.

## **(16.5) Maintenance and Repair**

### **Introduction**

Effective maintenance is crucial for the safe and efficient operation of powered industrial trucks. Regular inspections and timely repairs can prevent breakdowns and accidents, prolong the life of the equipment, and ensure regulatory compliance.

### **Scheduled Maintenance**

- **Preventive Maintenance**

The manufacturer's maintenance schedule should be strictly followed. This schedule is typically based on the hours of operation and includes tasks such as lubricating parts, checking fluids, replacing filters, inspecting belts, and checking tires for wear.

- **Periodic Inspections**

In addition to the daily pre-operation and post-operation inspections performed by operators, periodic in-depth inspections should be carried out by trained maintenance personnel. These inspections may involve testing and adjusting controls, checking for leaks, assessing the condition of the forks, and verifying the accuracy of safety devices.

- **Repairs**

Only designated personnel who have been trained and authorized should perform maintenance and repairs. OSHA requires that any repairs to the fuel and ignition systems of industrial trucks be performed only in designated locations.

### **Record-Keeping**

- **Maintenance Logs**

Accurate records should be kept of all preventive maintenance, inspections, repairs, and modifications. These logs can help identify recurring problems, guide future maintenance activities, and provide evidence of regulatory compliance.

- **Incident Reports**

Any incidents or accidents involving powered industrial trucks should be reported and recorded immediately. These reports can help identify potential issues with the equipment that may need to be addressed.

- **Downtime Management**

Effective maintenance planning can help minimize the impact of downtime due to repairs or maintenance. Consider scheduling major maintenance tasks or inspections during off-peak times to minimize disruption.

Remember, the safety and well-being of the employees should always be the top priority. An effectively maintained powered industrial truck can greatly reduce the risk of accidents or injuries in the workplace.