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JOB AID

JOBAID-POWEREDINDUSTRIALTRUCK TRAIN-THE-TRAINER

Powered Industrial Truck Train-the-Trainer

Regulations and Standards
Employers in all industries have a legal obligation to ensure that each powered industrial truck operator is competent to operate the equipment safely. Industry standards governing industrial trucks are established to ensure safe and consistent operations, minimize accidents, and protect workers and equipment.

Some of the key standards include:

- U.S. 29 CFR Part 1910.178
- American National Standards Institute (ANSI)
- Industrial Truck Standards Development Foundation (ITSDF)

Other countries have similar regulations and standards.

The training program will depend on the operators, the types of powered industrial trucks that they operate, and the industry and location in which they work.

Training Program Development and Delivery
Perform a needs analysis to identify:

- Specific training requirements and objectives of the organization or group • Employees who will be required to operate powered industrial trucks • Types of lifts that the employees will be operating and the types of tasks the operators are expected to perform
- Knowledge and skills of the trainees and any gaps that may exist
- Specific workplace hazards that exist during industrial truck operation

Training must consist of a combination of:

- Formal instruction (preferably in a training room)
    - Lectures/presentations
    - Discussions
    - Interactive computer tools
    - Written material
    - Videos
    - Visual aids
- Hands-on training (in a safe location away from production or other operations, free from hazards and vulnerable infrastructure)
    - Demonstrations by the trainer
    - Practical exercises performed by the trainee

Training Program Content
Customize curriculum development to your trainee's environment and facility. Include workplace-specific items that directly relate to the equipment and the hazards at your location.

Address site-specific safety concerns, including:

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- Hazardous chemicals
- Low overhead obstructions
- Floor, freight elevator and rack weight capacity limits
- Pedestrian foot traffic
- Areas where powered industrial trucks are prohibited
- Loading docks
- Specific emergency preparedness and response procedures based on the type of workplace environment and materials present

Verify that the trainees know how to **report an incident** or near miss. Procedures are specific to your company and need to be explained in detail to trainees.

Topics

• Types of powered industrial trucks (such as counterbalance, reach, order picker) • Differences in design and functionality
  - Key components of a powered industrial truck (mast, carriage, forks, hydraulic system, tires)

• Powered industrial truck- and work-related topics
  - See Appendix A for a list of required topics

• Safety features (seat belts, horns, lights, mirrors)

• Required PPE (safety glasses, hard hats, high-visibility vests, steel-toe boots) • Pre-shift inspection

• Reporting incidents

Written Test

At the conclusion of the formal training, a written test should be issued to assess trainees' knowledge of the topics, regulations and best practices related to the powered industrial truck operations that were presented in the formal instruction. Record test results and the questions that were asked.

Hands-on Training and Certification

After formal classroom instruction and the written test, the trainee needs to be given an opportunity to practice operating a powered industrial truck and then evaluated on their practical ability to operate the equipment safely. See Appendix C for an example of a forklift operator evaluation form.

Trainees may operate a lift only under the direct supervision of qualified persons. Perform the practical portion of the training in an area that replicates the actual location where the operator will be working. Set up a specific area away from production and in an area that does not endanger the trainees or other employees and is free from hazards and vulnerable infrastructure.

Best Practices

Walk through the pre-shift inspection before performing demonstrations (See Appendix B for an example of a daily pre-shift inspection guide). Inspections begin with pre-operational power off visual inspections and progress to operational checks with the power on.

Demonstrate safe operation of the equipment. Provide time for the learner to practice.

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Supervise trainees closely and provide individual feedback and positive reinforcement
Evaluate the trainees' performance in:

- Driving forward and backward
- Stopping smoothly
- Showing proper function of the safety features
- Lifting and lowering loads
- Turning in narrow aisles or tight spaces
- Handling and stacking materials (do not practice with valuable materials or finished goods)
- Entering a trailer to load or unload (if applicable). Educate learners on these hazards beforehand:
    - Dock-lock system
    - Trailer wheel chocks
    - Weight distribution
    - Load securement
    - Clearances
    - Trailer inspection

Certification
Establish criteria for trainees to meet in order to obtain certification as a powered industrial truck operator. Most often this includes:

- A passing score on the written test
- Successful demonstration of hands-on operation of the lift

If a trainee doesn't pass the written test or practical demonstration, discuss the areas of confusion and assist the trainee. Allow more time for practice to gain familiarity with the equipment.

Upon successful completion of the course, provide the trainee with a certificate/certification card acknowledging their achievement as a certified powered industrial truck operator. Include the name of the operator, the date of the training, the date of the evaluation, the date of expiration, and the identity of the person(s) performing the training or evaluation on the certificate.

Documentation and Recordkeeping
It's important that you document your training program (with sign-in sheets, written test and practical evaluation). Documentation serves as ***evidence of compliance*** with regulatory requirements and demonstrates an organization's ***commitment to safety***. Ensure these documents are readily available when asked by an inspector. Retain training records and certifications for the duration of employment for each employee trained.

Refresher training is required when:

- The operator has been observed to operate the vehicle in an unsafe manner • The operator has been involved in an accident or near-miss incident • The operator has received an evaluation that reveals they are not operating the truck safely

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- The operator is assigned to drive a different type of truck
- A workplace condition changes that could affect the safe operation of the truck • The operator's certification has expired

An evaluation of each powered industrial truck operator's performance must be conducted at least once every three years.

Continuous Improvement and Evaluation

Obtaining feedback from the trainees is one of the best ways to evaluate the effectiveness of your training program and refine it. Various evaluation methods can be used – surveys, interviews, open communication and observation data. Update training materials and methods based on feedback, changes in regulations or industry best practices.

See Appendix D for a training program self-assessment checklist.

Effective Teaching Strategies

Since the learner will effectively be a trainer, a high-level summary of effective training and teaching techniques should be highlighted, including:

- Communication skills
- Engaging trainees with interactive training methods
- Handling questions and challenges
- Facilitating practical exercises and group interaction

There are some skills that will need practice and take time to develop, such as: • Managing group dynamics
- Promoting active participation
- Adapting to different trainee learning preferences
- Providing constructive feedback
- Addressing performance gaps
- Motivating trainees to excel

When trying to manage different learning preferences, it's helpful to include a mix of training methods in the delivery.

A difficult part about being in a trainer role is having to handle challenging situations, such as resistance to training, disruptive behavior, or even safety violations from those being trained. The goal is maintaining a positive learning environment and being able to handle those distractions as they come and resolve them.

Appendix A: Powered Industrial Truck- and Work-Related Topics to Include in Instruction

Powered industrial truck-related topics:

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- All operating instructions, warnings and precautions for the types of trucks the operator will be authorized to operate
- Similarities to and differences from a passenger automobile
- Controls and instrumentation: location, what they do, and how they work •

Engine or motor operation and maintenance

- Steering and maneuvering
- Visibility (including restrictions due to loading)
- Fork and attachment adaptation, operation and limitations of their utilization •

Vehicle capacity

- Vehicle stability
- Vehicle inspection and maintenance
- Refueling or charging, recharging batteries
- Operating limitations
- Any other operating instruction, warning or precaution listed in the operator's manual for the type of vehicle that the employee is being trained to operate

Work-related topics:

- Surface conditions where the vehicle will be operated
- Composition of probable loads and load stability
- Load manipulation, stacking and unstacking
- Pedestrian traffic
- Narrow aisles and other restricted places of operation
- Operating in potentially flammable hazard classified locations
- Operating the truck on ramps and other sloped surfaces that could affect the stability of the vehicle
    - Operating the vehicle in closed environments and other areas where insufficient ventilation could cause a buildup of carbon monoxide or diesel exhaust
- Other unique or potentially hazardous environmental conditions that exist or may exist in the workplace

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Appendix B: Pre-Shift Inspection Guide

The operator must inspect their lift before operating each shift. Different lifts can require different daily inspection items. Please consult the operator's manual for the particular lift being operated.

*Be sure the lift is parked on a level surface, brake is applied, forks are lowered to the ground, and the key switch is off before beginning the inspection.

Visual Inspection

	Is the mast free of damage and cracked welds? Are the chains and carriage level? Are the hydraulic cylinders (lift and tilt) secure and leak-free?
	Are the lift chains and hoses leak-free? Are there any signs of damage? Are the chains lubricated?
	Are the forks and load backrest free of cracks, bends and loose bolts? Are the forks within wear limits? Is the fork locking pin secure and operable?
	Are the tires and hubs free of chunking, cuts, wear and damage? Are the hub nuts tight? If pneumatic, is the tire pressure at the correct level?
	Is the exterior of the lift (around and underneath) free of leaking fluids, damage, loose parts, cracks and other structural defects?
	Is the overhead guard free of any damage, bending, cracks, compromised welds, looseness and drill holes?
	Is the operator's manual present?
	If a fire extinguisher is installed, is it charged and secure?
	Has all rubbish been removed from the operator's compartment?
	Are the data plate (nameplate) and all safety decals accurate, in place and legible?
	(Internal combustion engines) Is the fuel tank connected, secure and free of issues?
	(Internal combustion engines) Does the lift have adequate fuel?
	(Electric vehicles) Is the battery charged? Is the water at the correct level? Is the connector secure? Are the cables and lugs free of damage?
	Engine Compartment
	Is the air filter clean and in place?
	Is the engine free of leaks, strange noises and emission smells?
	Are the fluids (engine oil, water/coolant, brake and hydraulic fluid) at the correct level, free of contamination and of proper consistency?

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	If not a maintenance-free battery, is the water at the correct level?
	Are the battery hold-downs and hood latch intact and secure?

Operational Inspection

	Do all motors (drive, steer and hydraulic) and lifting/attachment functions operate properly? Are they free of strange noises and jerky motion?
	Does the inching pedal function properly? Is there play?
	Is the seat belt mounting secure? Is the belt free of frays and rips? Is the buckle operable and damage free?
	Are all equipped mirrors clean and reflective?
	Are all equipped lights operable and free of damage and debris? Is the mounting secure?
	Is the steering wheel loose, have play, pull, or vibrate?
	Do the horn and alarms function above the ambient noise level?
	Does the parking brake function and hold properly?
	If emergency disconnect is installed, is it functional?
	Are all instruments and gauges functioning properly?
	Does the brake pedal operate properly? Is there play?

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Appendix C: Powered Industrial Truck Operator Evaluation Form

Instructions: Use this checklist during the practical demonstration to evaluate operator proficiency. It can also be used for periodic evaluation to ensure the operator is continuing to operate lifts properly.

Operator Name:	Evaluator Name:	
Date of Evaluation:	Equipment Operated:	
OPERATOR BEHAVIORS	**RATING** **(Good, Fair, Poor, N/A)**	**COMMENTS**

Pre-use Inspection		
1. Follow Pre-Shift Inspection Guide.		
2. Look for damage.		
3. Document all findings on the checklist.		
Picking Up the Load		
1. Square up on the center of the load.		
2. Stop with the fork tips about 1 foot (30 cm) from the load.		
3. Clear personnel from the area near the load.		
4. Level the forks; then slowly drive forward until the load contacts the carriage.		
5. Lift the load carefully and smoothly until it is clear.		
6. Tilt the mast back slightly to stabilize the load.		
7. Look over both shoulders.		
8. After out and stopped, lower the load to travel height.		
Traveling		
1. Do not raise or lower the load and forks while traveling.		
2. Maintain a safe speed.		
3. Observe all traffic rules, warning signs, floor load limits and overhead clearances.		
4. Keep arms and legs inside the lift.		
5. Follow other vehicles at safe distance.		
6. Slow down when cornering.		
7. Use the horn to alert others.		

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8. Travel with the load facing uphill while on a ramp or incline.		
9. Stop smoothly.		

Putting Down a Load	**RATING** (Good, Fair, Poor, N/A)	**COMMENTS**
1. Make sure there is sufficient clearance for the load.		
2. Clear personnel from the area near the load.		
3. Square up to the location; then stop about 1 foot (30 cm) away.		
4. Raise the load to placement level.		
5. Move slowly forward.		
6. If the load is on a pallet, lower it into position and lower the forks further.		
7. Look over both shoulders before backing out.		
8. Back straight out until the forks have cleared.		
9. Lower the forks to traveling position.		
Parking		
1. Fully lower the forks.		
2. Neutralize the controls.		
3. Set the brakes.		
4. Turn off the power.		
5. If parked on an incline, block the wheels.		
6. Park only in authorized areas.		
Fueling and Battery Recharging		

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1. Engine off.		
2. Fire extinguisher nearby.		
3. Proper personal protective equipment worn.		
4. Safe fueling and battery recharging procedures followed.		
5. Spills cleaned up immediately.		
Based on my evaluation, the operator has successfully completed the evaluation and is qualified to operate the following equipment:		
Based on my evaluation, the operator has **not** demonstrated competence in operating the following equipment:		

Evaluator Signature:

Operator Signature:

Appendix D: Powered Industrial Truck Training Program Self-Assessment

Trainer Name: _____ Date: _____

Company Name: _____ Location: _____

Policy and Training:

1. Is there a formal written Powered Industrial Truck Operator Training Program in place that is specific to your workplace?	Y	N
2. Has the Powered Industrial Truck Operator Training Program been reviewed, at least annually, when applicable regulations or facility operations change, or when an accident investigation or safety audit warrant a plan revision?	Y	N
3. Is a pedestrian powered industrial truck safety training program in place and has it been provided to non-operators (i.e., visitors, office staff, etc.) to educate them about the hazards of lift operations and how to reduce incidents of pedestrians injured by lifts?	Y	N
4. Is there a formal written Powered Industrial Truck Training Program with components including lift characteristics and the operating environment?	Y	N
5. Does training consist of a combination of formal instruction, practical training and evaluation in the workplace?	Y	N

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6. Have all operators received initial operator training on the equipment that they are going to be operating and in the conditions that they will be operating the lift?	Y	N
7. Have all operators received refresher training if they have been observed operating the lift in an unsafe manner, been involved in an accident or near-miss incident, received an evaluation that the lift is not being operated safely, been assigned to drive a different type of lift, or has a condition changed that could affect the safe operation of the lift?	Y	N
8. Have supervisors determined that each operator is competent to operate a lift?	Y	N
9. Do supervisors regularly observe operators to ensure the operator's competency, that seat belts are being worn, and that lifts are operated safely?	Y	N
10. Has the performance of all operators been evaluated at least once every three years?	Y	N
11. Is all training documented and maintained?	Y	N
12. Are all lift operators tracked to know when an evaluation is due?	Y	N

What steps do we need to take to improve powered industrial truck policy and training procedures?

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Program Review and Audit: Does your program contain the following components?

1. Defined responsibilities for Management, Supervisors, Employees and Trainers.	Y	N
2. Rules for safely operating a lift.	Y	N
3. Rules for pedestrian safety.	Y	N
4. Inspection and maintenance requirements.	Y	N
5. Safety checklist requirements.	Y	N
6. Operator training and evaluation requirements.	Y	N
7. Certification and recordkeeping requirements.	Y	N
8. Program review and update requirements.	Y	N

In addition to having these components, how does your organization confirm that these are being done correctly?

Where can we improve our program and what steps do we need to take to achieve our goals?

Inspection and Maintenance: Does your program contain the following components?

1. Are lifts inspected daily before they are used and after each shift for lifts that are used for more than one consecutive shift.	Y	N
2. Are inspections documented and maintained?	Y	N
3. Is equipment in proper working order and included in a preventative maintenance program?	Y	N
4. Does the maintenance performed on the lift meet the manufacturer's recommendations?	Y	N
5. Do only trained and authorized people handle repairs?	Y	N
6. When surveyed, are employees knowledgeable of who/how to report issues or concerns?	Y	N
7. Are lifts that are not in safe operating condition removed from service immediately?	Y	N
8. Are lifts examined before being placed back into service?	Y	N

Where can we improve our program and what steps do we need to take to achieve our goals?

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