

**SAMPLE WRITTEN PROGRAM  
FOR**

**POWERED INDUSTRIAL TRUCK PROGRAM**  
**(FORKLIFT)**



**POWERED INDUSTRIAL TRUCKS PROGRAM  
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**SAMPLE**  
**POWERED INDUSTRIAL TRUCK PROGRAM**

**(YOUR COMPANY NAME)**

**I. PURPOSE**

The purpose of this Powered Industrial Truck Program is to protect the health and safety of all employees assigned to operate powered industrial trucks and to comply with the requirements of 29 CFR 1910.178 (Powered Industrial Trucks).

**II. AUTHORITY & REFERENCE**

Occupational Safety and Health Administration (OSHA) 29 CFR 1910.178 (Powered Industrial Trucks)

Department of Commerce, Wisconsin Administrative Code 32.15

**III. RESPONSIBILITY FOR COMPLIANCE**

A. The (position designated) will be responsible for the following:

1. Developing specific policies and procedures pertaining to the operation and maintenance of powered industrial trucks.
2. Implementing a training program based on the general principles of safe truck operation, the type of vehicle(s) being used in the workplace, the hazards of the workplace created by the use of the vehicle(s)
3. Coordinating the training and performance testing of Powered industrial truck operators.
4. Maintaining the training certification records and performance tests of employees included in the training sessions.
5. Periodically reviewing the effectiveness of the program.

B. Managers and supervisors are responsible for:

1. Ensuring that employees who operate powered industrial trucks in their departments have received appropriate training.
2. Providing observations and feedback to operators to ensure safe equipment operation.
3. Ensuring that the vehicles under their responsibility are properly inspected and maintained in a safe operating condition.

- C. Powered Industrial Truck operators are responsible for:
  - 1. Operating powered industrial trucks in a safe manner.
  - 2. Inspecting powered industrial trucks at the beginning of each work shift and completing the appropriate inspection forms if requested
  - 3. Reporting equipment defects and/or maintenance needs to their supervisors immediately.

#### **IV. DEFINITION OF TERMS**

The following terms are associated with the design, type and use of powered industrial trucks:

- A. **Backrest:** Supports the load when tipped back and adds stability.
- B. **Carriage:** The part of the mast where the forks and backrest are mounted.
- C. **Counterbalance Forklifts:** Designed for both indoor and outdoor use, counterbalance truck wheels as their center of gravity and can be powered by battery, propane, gasoline or diesel fuel.
- D. **Full-tapered Forks:** Forks that gradually increase in thickness from the tip of the fork all the way back to the fork's heel (rear). Full-tapered forks are used to lift lighter loads.
- E. **Half-tapered forks:** Forks that gradually increase in thickness from the tip of the fork (front) to about midway back where the blade reaches its maximum thickness. Half-tapered forks are used to lift heavier loads.
- F. **Identification Plate:** Contains information about the truck's design and capacity including information about the truck's engine, load capacity, serial number, weight and the truck's type designation. The identification plate may also contain additional information specific to that type of truck.
- G. **Lift Cylinders:** Hydraulically operated single acting cylinders used to lift the carriage.
- H. **Load Center:** The distance from the heels of the forks to the load's center of gravity.
- I. **Mast:** The mechanism on the truck that raises and lowers the load. The mast is made up of a set of tracks that house bearings and chains.
- J. **Material Handling:** Any activity that involves picking up and moving materials, parts and/or finished products.
- K. **Powered Industrial Truck:** An industrial vehicle used to carry, push, pull, lift or stack material that is powered by an electric motor or an internal combustion engine. Included are vehicles that are commonly referred to as forklift trucks, rider trucks, motorized or powered hand trucks, pallet trucks and tugs. Not included are compressed air or nonflammable compressed gas-operated industrial trucks, farm vehicles or vehicles intended primarily for earth moving or over-the-road hauling.
- L. **Powered Pallet Jack:** A type of powered industrial truck designed to move palletized materials. These trucks may be called *walkies*, or *walkie riders*.

- M. **Order Picker:** A type of truck designed to allow the operator to ride up and down the load so that individual items can be pulled from a rack or storage self.
- N. **Overhead Guard:** A guard over the operator's head that protects the operator from falling debris. **Note:** The overhead guard is not designed to withstand the full impact of falling objects.
- O. **Rated Capacity:** The maximum weight that the truck is designed to lift as determined by the manufacture. To lift the maximum rated capacity, the load must be as close as possible to the drive wheels. The rated capacity of a truck can be found on the Identification Plate on the vehicle and/or in the manufacture's operator manual.
- P. **Side Stability:** Refers to the truck's ability to resist tipping sideways under various loaded and unloaded conditions.
- Q. **Tilt Cylinders:** Hydraulically operated double acting cylinders used to tilt the backrest and forks. Tilt cylinders work in both forward and backward directions.
- R. **Type designation:** Refers to the truck's power source (diesel, gas, electric or liquefied propane gas) and if the truck is equipped with any additional safeguards to the exhaust, fuel and/or electrical systems. The designation will also indicate any locations where the truck may not be used such as in atmospheres containing flammable vapors or dusts.

The following definitions help to explain the principle of stability

A detailed explanation of stability is found in **Appendix E**

- A. **Center of Gravity** is a point on an object at which all of the object's weight can be considered to be concentrated.
- B. **Counterweight** is the weight that is a part of the truck's basic structure that is used to offset the load's weight and to maximize the vehicle's resistance to tipping over.
- C. **Fulcrum** is the truck's axis of rotation when it tips over.
- D. **Grade** is a surface's slope that is usually measured as the number of feet of rise or fall over a hundred foot horizontal distance (measured as a per cent).
- E. **Lateral stability** is a truck's resistance to tipping over sideways.
- F. **Line of action** is an imaginary line through an object's center of gravity.
- G. **Load center** is the horizontal distance from the load's edge (or the fork's or other attachment's vertical face) to the line of action through the load's center of gravity.
- H. **Longitudinal stability** is the truck's resistance to overturning forward or rearward.
- I. **Moment** is the product of the object's weight times the distance from a fixed point. In the case of a powered industrial truck, the distance is measured from the point that the truck will tip over to the object's line of action. The distance is always measured perpendicular to the line of action.
- J. **Track** is the distance between wheels on the vehicle's same axle.

K. **Wheelbase** is the distance between the centerline of the vehicle's front and rear wheels.

## V. POWERED INDUSTRIAL TRUCK RULES FOR SAFETY

The following is a list of safety rules pertaining to the operation of a powered industrial truck.

### A. **Truck Operations:**

1. A safe distance will be maintained from the edge of ramps or platforms while on any elevated dock, platform or freight car.
2. When leaving the truck unattended, the forks will be fully lowered the controls placed in neutral, the power shut off, the brakes set to and the key or connector plug removed. The wheels will be blocked if the truck is parked on an incline. **Note:** A powered industrial truck is considered unattended when the operator is 25 feet or more away from the vehicle which remains in his/her view or whenever the operator leaves the vehicle and the truck is not in view.
3. When the operator of an industrial truck is dismounted and within 25 ft. of the truck still in his view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.
4. Trucks will not be used to open or close freight doors.
5. The brakes of trucks, trailers and railroad cars will be set and wheel chocks or stops will be in place to prevent movement during loading or unloading operations. Fixed jacks may be necessary to support a semi-trailer during loading or unloading when the trailer is not coupled to a tractor. The flooring of trucks, trailers and railroad cars will be checked by the operator for breaks and weakness before driving these vehicles into these surfaces.
6. An overhead guard will be used as protection against falling objects. **Note:** The overhead guard is intended to offer protection from the impact of small packages, boxes or bagged materials only.
7. A load backrest extension will be used whenever necessary to minimize the possibility of the load or part of the load from falling rearward.
8. Fire doors, access to stairways, fire extinguishers and emergency exits will always be kept clear.
9. Only approved industrial trucks will be used in hazardous conditions.
10. Powered industrial trucks will not be driven up to anyone standing in front of a bench or other fixed object.
11. No person will be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
12. Passengers are not permitted to ride on powered industrial trucks unless authorized and the truck is equipped with a safe place for the passenger to ride.
13. The operator will never place his/her arms or legs between the uprights of the mast or outside the running lines of the truck.

14. The operator will never push one load with another load.
15. Spinner knobs must not be attached to the steering handwheels of trucks not originally equipped with such knobs.
16. Never lift people on the forks of a powered industrial truck unless the truck has a properly designed safety platform securely attached to the lifting carriage and/or forks. If the truck is equipped with vertical controls only, or vertical and horizontal controls elevatable with the lifting carriage or forks, means will be provided whereby personnel on the platform can shut off power to the truck. Protection from falling objects as indicated necessary by the operating conditions will also be provided.
17. Safety platforms, firmly secured to the lifting carriage and/or forks, shall be used.

**B. Traveling:**

1. Traffic regulations will be observed, including observing all STOP SIGNS and authorized plant speed limits.
2. A safe distance of approximately three truck lengths from the truck ahead will be maintained whenever possible.
3. The “Right of Way” will be yielded to ambulances or other vehicles in emergency situations.
4. The operator will slow down and sound the horn at intersections and other locations where vision is obstructed.
5. If the load being carried obstructs forward view, the operator will travel in reverse with the load trailing.
6. Railroad tracks will be crossed diagonally whenever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.
7. Grades will be ascended or descended slowly. When ascending or descending grades in excess of 10 percent, loaded trucks will be driven with the load upgrade. Unloaded trucks will be operated on all grades with the load engaging means downgrade. On all grades, the load and load engaging means will be tilted back and raised only as far as necessary to clear the road surface.
8. The operator will slow down for wet and slippery floors.
9. Dockboards or bridgeplates will be properly secured before they are driven over and their rated capacity will never be exceeded. Dockboards or bridgeplates will always be driven over carefully and slowly.
10. Elevators will be approached slowly and then entered squarely after the elevator car is properly leveled. Once on the elevator, the transmission will be in neutral, the engine shut off and the brakes set to prevent movement.
11. Motorized hand trucks must always enter elevators with the load end forward.

12. When making turns, the operator will reduce the truck's speed to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.
13. Other trucks traveling in the same direction or at intersections, blind spots or other dangerous locations will not be passed.
14. Horseplay and stunt driving, including spinning of the tires, is not permitted.
15. Running over loose objects in aiseways will be avoided.
16. Under all travel conditions, the truck will be operated at a speed that will permit the truck to be brought to a stop in a safe manner.
17. The operator will always look in the direction of travel and keep a clear view of the path of travel.
18. Railroad tracks will be crossed diagonally whenever possible.

**C. Loading/Stacking:**

1. Only stable and safely arranged loads will be handled. Use extreme caution when handling off-centered loads that cannot be centered on the forks.
2. Only loads within the rated capacity of the truck will be handled.
3. The forks will be placed under the load as far as possible and the mast carefully tilted backward to stabilize the load.
4. Extreme care will be used when tilting the load forward or backward especially when high tiering. Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load will not be tilted forward except when the load is in a deposit position over a rack or stack of material.
5. When stacking or tiering loads, the operator will tilt the load backward only enough to stabilize the load.
6. The operator will remove unsafe containers and pallets from service.
7. Trucks equipped with attachments will be operated as a partially loaded truck when not handling a load.
8. The operator will adjust long and high loads, including multiple-tiered loads that may affect the capacity of the truck.
9. The operator will insure there is always a safe distance between the mast and overhead lights, pipes and sprinkler systems.

**D. Maintenance of the Truck:**

1. Powered industrial trucks will be inspected before being placed in service. This inspection will be made at least daily. Trucks used on a round-the-clock basis will be inspected after each shift.
2. If at any time during the driver's shift a truck is found to be in unsafe, the operator will immediately notify his/her supervisor and remove the truck from service until it has been restored to safe operating condition.
3. Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided.
4. Spillage of excess oil or fuel will be carefully cleaned up and disposed off in accordance with state and federal regulations. Appropriate authorities will be notified if required by law. Fuel cap must be replaced before restarting the engine.
5. The operator will always wear the proper personal protective equipment when fueling the truck or performing any other maintenance on the truck.
6. No repairs shall be made in class I, II, and III locations. **Refer Appendix C**
7. No truck will be operated with a leak in the fuel system until the leak has been corrected.
8. Open flames will not be used to check the electrolyte level in batteries or the gasoline level in the fuel tank.
9. Smoking is not allowed while changing LPG tanks, refueling gas powered trucks or changing or charging batteries for electric powered vehicles.

**VI. EQUIPMENT INSPECTION AND MAINTENANCE**

- A. The operator will conduct an examination of the truck before the vehicle is placed into service. This inspection must be made at least daily. When trucks are used on a round-the-clock basis, each truck will be inspected after each shift. \*The results of these inspections will be documented on a Powered Industrial Truck Inspection Checklist (**See Appendices A and B**).
- B. The operator will immediately notify his/her supervisor if the truck is found to be in need of repair and/or unsafe.
- C. If repairs are needed on a powered industrial truck that prevent its safe operation, the truck will be taken out of service until the repairs have been made.
- D. Repairs must be made by authorized personnel only.
- E. When the temperature of any part of any truck is found to be in excess its normal operating temperature, the vehicle must be removed from service and not returned to service until the cause for the overheating has been eliminated.
- F. Any vehicle that emits hazardous sparks, flames or smoke from the exhaust system will be removed from service and not returned from service until the cause for the hazardous emissions has been corrected.

- G. Powered industrial trucks are to be kept in a clean condition and free of excess lint, oil, and grease. Only noncombustible agents should be used for cleaning trucks. Cleaning trucks with low flash point solvents (below 100 degrees Fahrenheit) is not permitted.
- H. Precautions regarding toxicity, ventilation, personal protective equipment and fire hazards are to be followed as stated on the warning label and/or the Material Safety Data Sheet (MSDS) for that particular cleaning agent.
- I. Parts used in any industrial truck requiring replacement will be replaced only with parts equal in safety to those parts originally provided by the manufacturer.

## **VII. OPERATOR TRAINING**

- A. Only employees who have successfully completed training in accordance with 1910.178(l) will be permitted to operate a powered industrial truck
- B. Training will consist of a combination of formal instruction (lecture, discussion videotape program written material) practical training (demonstrations performed by the trainer and practical exercises performed by the trainee, and evaluation of the operator's performance in the workplace.
- C. Operator training and evaluation will be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence.
- D. The formal (classroom) training will include a review/discussion of the following topics:
  - 1. The factors that affect the stability of the truck.
  - 2. The safe operation of powered industrial trucks.
  - 3. Truck controls and instrumentation; where they are located, what they do and how they work.
  - 4. The similarities and differences between powered industrial trucks and automobiles.
  - 5. Steering and Maneuvering.
  - 6. The proper techniques of battery charging and refueling.
  - 7. The inspection of powered industrial trucks.
  - 8. Vehicle capacity.
  - 9. Load manipulation, stacking and unstacking.
  - 10. Pedestrian traffic in areas where the vehicle will be operated.
  - 11. Narrow aisles and other restricted places where the vehicle will be operated.
  - 12. Other unique and potentially hazardous environmental conditions in the workplace that could affect the safe operation of the vehicle.

- E. Refresher training in relevant topics will be provided to the operator when:
  - 1. The operator has been observed to operate the vehicle in an unsafe manner.
  - 2. The operator has been involved in an accident or near-miss incident.
  - 3. The operator has received an evaluation that reveals that the operator is not operating the truck safely.
  - 4. The operator is assigned to drive a different type of truck.
  - 5. A condition in the workplace changes in a manner that could affect safe operation of the truck.
- F. An evaluation of each PIT operator's performance will be conducted at least once every three years.
- G. If an operator has previously received training in a topic specified in paragraph 29 CFR 1910.178, and the training is appropriate to the truck and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the truck safely.
- H. Training will be documented on the *Powered Industrial Truck Training Certification* form provided in **Appendix B**. The certification will contain each employee's name, the date of training and the name of the instructor.

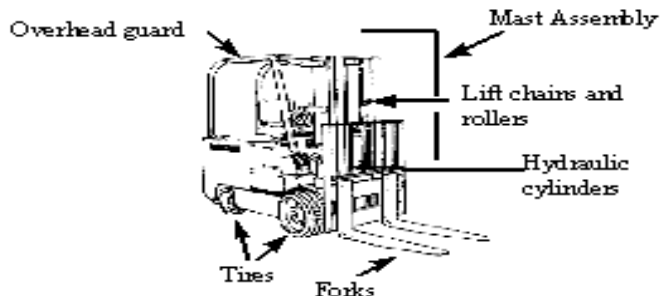
## **IX. PROGRAM REVIEW**

- A. The (position designated) will review and evaluate the effectiveness of this program when any of the following occurs:
  - 1. On an annual basis using the *Powered Industrial Truck Safety Checklist* provided in **Appendix D**.
  - 2. When changes occur to the OSHA Powered Industrial Truck Standard that require a revision to this program.
  - 3. When changes occur to related procedures that require a revision.
  - 4. When facility operational changes occur that require a revision.
  - 5. When there is an accident or near miss that relates to this area of safety.

## Appendix A-1

### POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST ELECTRIC FORKLIFT

#### Electric Forklift Truck



**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Overhead guard			
Hydraulic Cylinders			
Mast assembly			
Lift chains and rollers			
Forks			
Tires			
Battery			
Hydraulic Fluid level			
<b>KEY ON PROCEDURES</b>			
Hour meter gauge			
Battery discharge indicator			
Steering			
Brakes			
Front, tail and brake lights			
Horn			
Safety seat			
Seat belts			
Load handling attachments			

**Additional Remarks:**

\_\_\_\_\_

\_\_\_\_\_

**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

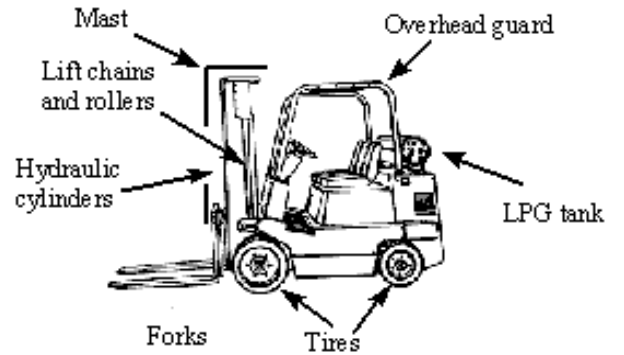
**Appendix A-2**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST  
PROPANE FORKLIFT**

**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_

**Propane Forklift**



Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Overhead guard			
Hydraulic Cylinders			
Mast assembly			
Lift chains and rollers			
Forks			
Tires			
LPG Tank and Locator pin			
LPG tank hose			
Gas gauge			
Battery			
Hydraulic Fluid level			
Engine oil level			
Engine coolant level			
<b>KEY ON PROCEDURES</b>			
Front, tail and brake lights			
Oil pressure indicator lamp			
Ammeter indicator lamp			
Hour meter			
Water temperature gauge			

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY ON PROCEDURES</b>			
Steering			
Brakes			
Horn			
Safety seat (if equipped)			
Load handling attachments			
Transmission fluid level			

**Additional Remarks:**

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**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

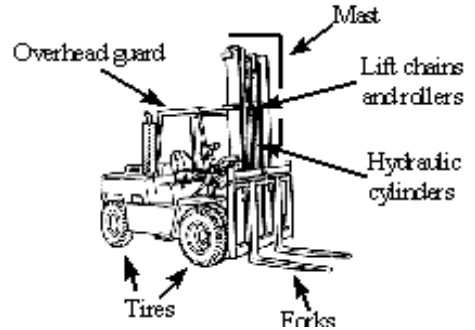
**Appendix A-3**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST  
YARD FORKLIFT**

TRUCK NO: \_\_\_\_\_

Hour meter Reading: \_\_\_\_\_

Yard Forklift



Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Overhead guard			
Hydraulic Cylinders			
Mast assembly			
Lift chains and rollers			
Forks			
Tires			
LPG tank and locator pin			
LPG tank hose			
Gas gauge			
Engine oil level			
Battery			
Hydraulic fluid level			
Engine coolant level			
<b>KEY ON PROCEDURES</b>			
Front, tail and brake lights			
Fuel gauge (if diesel)			
Windshield wiper			
Heater			

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY ON PROCEDURES</b>			
(with engine running)			
Oil pressure indicator lamp			
Ammeter indicator lamp			
Ammeter			
Hour meter			
Water temperature gauge			
Steering			
Brakes			
Horn			
Safety seat (if equipped)			
Load-handling attachments			
Transmission fluid levels			

**Additional Remarks:**

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**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

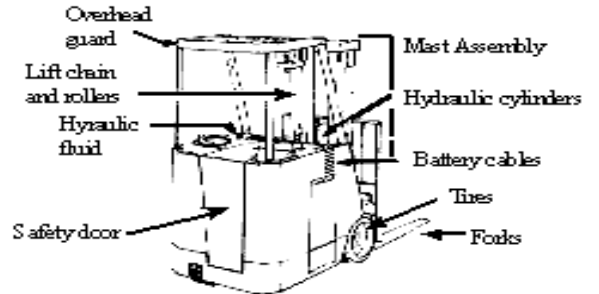
**Appendix A-4**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST  
ELECTRIC TRANSTACKER**

**The Transtacker**

**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_



Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Overhead guard			
Hydraulic Cylinders			
Mast assembly			
Lift chains and rollers			
Forks			
Tires			
Battery cables			
Safety door			
<b>KEY ON PROCEDURES</b>			
Hour meter gauge			
Battery discharge indicator			
Steering brakes			
Lights			
Horn			
Control lever			
Load handling attachments			

**Additional Remarks:**

\_\_\_\_\_

\_\_\_\_\_

**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Appendix A-5**  
**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST**  
**RIDING GRIP TOW**

**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_



Check each item	Condition		Explain below if not OK
	OK	Not OK	
The vehicle inspection:			
Lines and hoses			
Battery			
Safety switch			
Hand guards			
Operations inspection:			
Test the brakes			
Check the drive operations			
Test the horn			
Check the grip coupling			

**Additional Remarks:**

\_\_\_\_\_

\_\_\_\_\_

**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

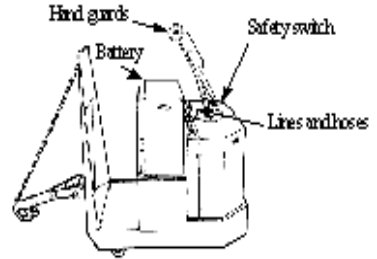
**Appendix A-6**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST  
STAND-UP RIDING TOW TRACTOR**

Stand-up Riding Tow Tractor

**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_



Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>The vehicle inspection:</b>			
Lines and hoses			
Battery			
Safety switch			
Hand guards			
<b>The operations inspection</b>			
Test the brakes			
Check the drive operations			
Test the horn			
Check the tow hook and safety catch			

**Additional Remarks:**

\_\_\_\_\_

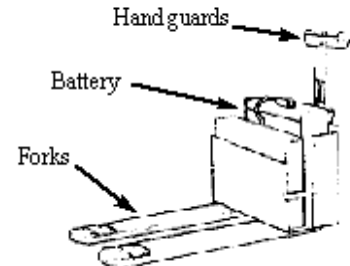
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**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Appendix A-7**  
**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST**  
**WALKING PALLET TRUCK**

Walking Pallet Truck



**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>The vehicle inspection:</b>			
Forks			
Battery			
Hand guards			
<b>The operations inspection</b>			
Test the brakes			
Check the drive operations			
Test the horn			
Inspect the load handling attachment operations			

**Additional Remarks:**

\_\_\_\_\_

\_\_\_\_\_

**Inspected by:** \_\_\_\_\_

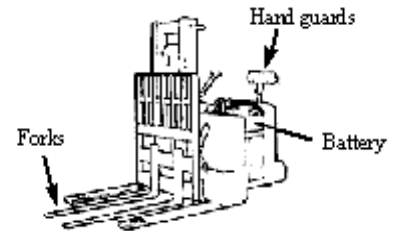
**Date:** \_\_\_\_\_

**Appendix A-8**  
**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST**  
**WALKING TRANSTACKER**

**Walking Transtacker**

**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_



Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>The vehicle inspection:</b>			
Forks			
Battery			
Hand guards			
<b>The operations inspection</b>			
Check the drive operations			
Test the brakes			
Check the horn			
Inspect the load-handling attachment operations			

**Additional Remarks:**

\_\_\_\_\_

\_\_\_\_\_

**Inspected by:** \_\_\_\_\_

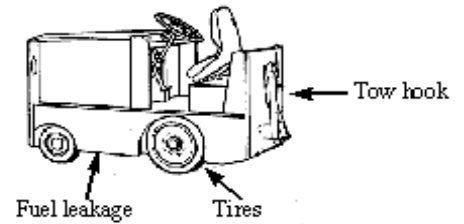
**Date:** \_\_\_\_\_

**Appendix A-9**  
**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST**  
**INDUSTRIAL PROPANE TOW TRACTOR**

**Indoor Tow Tractor**

**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_



Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Fluid leakage			
Tires			
Tow hook			
Windshield (if equipped)			
Overhead guard (if equipped)			
LPG tank and locator pin			
LPG tank hose			
Gas gauge			
Check the engine oil level			
Check the engine coolant level			
Examine the battery			
<b>KEY ON PROCEDURES</b>			
Test the front, tail and brake lights			
Oil pressure gauge			
Ammeter			
Water temperature gauge			
Hour meter			

Check each item	Condition	Explain below if not OK
-----------------	-----------	-------------------------

	OK	Not OK	
<b>ENGINE RUNNING PROCEDURES</b>			
Steering			
Brakes			
Horn			
Safety seat (if equipped)			
Transmission fluid level			

**Additional Remarks:**

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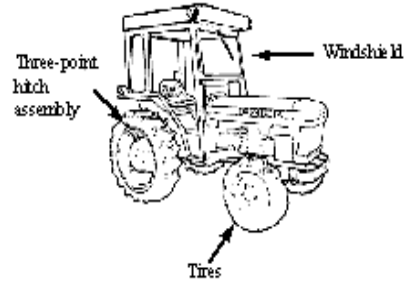
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**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Appendix A-10**  
**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST**  
**INDUSTRIAL TOW TRACTOR**

Industrial Tow Tractor



**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Windshield			
Tires			
Three-point hitch assembly			
Engine oil			
Engine coolant			
<b>KEY ON PROCEDURES</b>			
Oil and battery lights			
Temperature gauge			
Hour meter			
Steering			
Front, tail and brake lights			
Horn			

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>ENGINE RUNNING PROCEDURES</b>			
Windshield wiper			
Brakes			
Hoist operation			

**Additional Remarks:**

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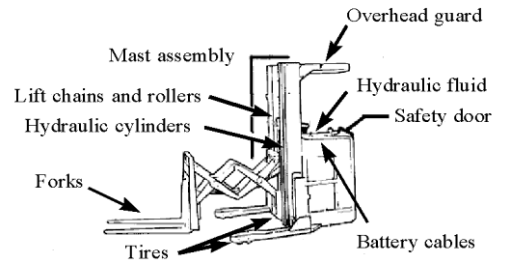
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**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Appendix A-11**  
**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST**  
**REACH TRUCK**

Reach Truck



**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Overhead guard			
Hydraulic Cylinders			
Mast assembly			
Lift chains and rollers			
Forks			
Tires			
Battery cables			
Safety door			
Hydraulic fluid			
<b>KEY ON PROCEDURES</b>			
Battery discharge indicator			
Hour meter			
Steering			
Brakes			
Lights			
Horn			
Control lever			
Load handling attachments			

**Additional Remarks:**

\_\_\_\_\_

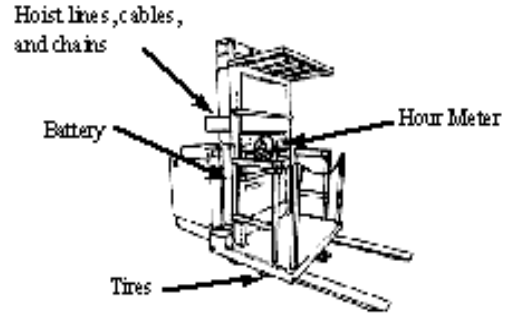
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**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Appendix A-12**  
**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST**  
**ORDER PICKER**

Order Picker



**TRUCK NO:** \_\_\_\_\_

**Hour meter Reading:** \_\_\_\_\_

Check each item	Condition		Explain below if not OK
	OK	Not OK	
<b>KEY OFF PROCEDURES</b>			
Hoist lines, cables and chains			
Hour meter			
Tires			
Battery cables			
Limiting device			
<b>KEY ON PROCEDURES</b>			
Battery discharge indicator			
Safety interlock			
Steering			
Brakes			
Lights			
Horns			
Gripper jaws			
Work platform			

**Additional Remarks:**

\_\_\_\_\_

\_\_\_\_\_

**Inspected by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

## Appendix A-13

### **SAMPLE GENERIC CHECKLIST FOR POWERED INDUSTRIAL TRUCKS**

- **Overhead Guard** - Are there broken welds, missing bolts, or damaged areas?
- **Hydraulic Cylinders** - Is there leakage or damage on the lift, tilt, and attachment functions of the cylinders?
- **Mast Assembly** - Are there broken welds, cracked or bent areas, and worn or missing stops?
- **Lift Chains and rollers**
  - Is there wear or damage or kinks, signs of rust, or any sign that lubrication is required?
  - Is there squeaking?
- **Forks**
  - Are they cracked or bent, worn, or mismatched?
  - Is there excessive oil or water on the forks?
- **Tires**
  - What do the tires look like?
  - Are there large cuts that go around the circumference of the tire?
  - Are there large pieces of rubber missing or separated from the rim?
  - Are there missing lugs?
  - Is there bond separation that may cause slippage?
- **Battery Check**
  - Are the cell caps and terminal covers in place?
  - Are the cables missing insulation?
- **Hydraulic Fluid** - Check level?
- **Gauges** - Are they all properly working?
- **Steering**
  - Is there excessive free play?
  - If power steering, is the pump working?
- **Brakes**

If pedal goes all the way to the floor when you apply the service brake, that is the first indicator that the brakes are bad. Brakes should work in reverse, also.  
Does the parking brake work? The truck should not be capable of movement when the parking brake is engaged.
- **Lights** - If equipped with lights, are they working properly?

- **Horn** - Does the horn work?
- **Safety seat** - if the truck is equipped with a safety seat is it working?
- **Load Handling Attachments**
  - Is there hesitation when hoisting or lowering the forks, when using the forward or backward tilt, or the lateral travel on the side shift?
  - Is there excessive oil on the cylinders?
- **Propane Tank** - Is the tank guard bracket properly positioned and locked down?
- **Propane Hose**
  - Is it damaged? It should not be frayed, pinched, kinked, or bound in any way.
  - Is the connector threaded on squarely and tightly?
- **Propane Odor** - If you detect the presence of propane gas odor, turn off the tank valve and report the problem.
- **Engine Oil** - Check levels.
- **Engine Coolant** - Visually check the level.  
Note: Never remove the radiator cap to check the coolant level when the engine is running or while the engine is hot. Stand to the side and turn your face away. Always use a glove or rag to protect your hand.
- **Transmission Fluid** - Check levels?
- **Windshield Wipers** - Do they work properly?
- **Seat Belts** - Do they work?
- **Safety Door** - (found on stand up rider models) Is it in place?
- **Safety Switch** - (found on stand up riding tow tractors) Is it working?
- **Hand guards** - (found on stand up riding tow tractors, walking pallet trucks, walking transtackers) Are they in place?
- **Tow Hook**
  - Does it engage and release smoothly?
  - Does the safety catch work properly?
- **Control Lever** - Does the lever operate properly?
- **Safety Interlock** - (found on order pickers) If the gate is open, does the vehicle run?
- **Gripper Jaws** - (found on order pickers) Do the jaws open and close quickly and smoothly?

- **Work Platform** - (found on order pickers) Does the platform raise and lower smoothly?



**Appendix C**  
**Summary Table of Location Classes**

<b>Unclassified</b>	<b>Class I Location</b>	<b>Class II location</b>	<b>Class III Location</b>
Locations not possessing atmospheres as described in other columns	Locations in which flammable gases or vapors are, or may be, present in the air in quantities sufficient to produce explosive or ignitable mixtures	Locations which are hazardous because of the presence of combustible dust	Locations where easily ignitable fibers or flyings are present but not likely to be in suspension in quantities sufficient to produce ignitable mixtures

<b>Groups in classes</b>	<b>None</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Examples of locations or atmospheres in classes and groups	Piers and wharves inside and outside general storage, general industrial or commercial properties	Acetylene	Hydrogen	Ethyl-ether	Gasoline, Naptha, Alcohols, Lacquer solvent, Benzene

<b>E</b>	<b>F</b>	<b>G</b>	<b>None</b>
Metal Dust	Carbon, black coal dust, coke dust	Grain Dust, Flour dust, starch dust, organic dust	Baled waste, cocoa fiber, cotton, excelsior, hemp, istle, jute, kapok, oakum, sisal, spanish moss, synthetic fibers, tow

## Appendix D

### Powered Industrial Truck Safety Checklist\* (See CFR 1910.178)



#### Vehicle Type/Use

- ◆ Do all powered industrial trucks meet the design and construction requirements of ANSI B56.1-1969, American National Standard for Powered Industrial Trucks? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are modifications and additions that affect the capacity and safe operation of the vehicle performed only with the manufacturer's prior written approval? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ If modifications or additions are performed, are the capacity, operation, and maintenance instruction plates or decals changed accordingly? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are nameplates and markings in place and legible? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is the proper type of truck being used for particular locations as required by Table N-1178? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are trucks fitted with an overhead guard if needed (unless operating conditions do not permit)? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are trucks equipped with a vertical load backrest extension if the type of load presents a hazard? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is fuel handling and storage in accordance with NFPA No. 30-1969, Flammable and Combustible Liquids Code, and NFPA No. 58-1969, Storage and Handling of Liquefied Petroleum Gases? Yes\_\_\_\_\_ No\_\_\_\_\_

### **Changing and Charging of Batteries**

- ◆ Are batteries changed and charged in specifically designated areas? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are facilities provided for flushing and neutralizing spilled electrolyte? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is fire protection and adequate ventilation provided? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is adequate battery handling equipment provided? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are reinstalled batteries properly positioned and secured? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is a carboy tilter or siphon provided for handling electrolyte? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are precautions taken not to pour acid into water or water into acid?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are truck brakes applied before batteries are changed or charged? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are vent caps in place when charging? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are battery compartment covers open when charging? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is smoking prohibited in the charging area? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are precautions taken to prevent flames, sparks, or electric arcs in the charging area?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are tools and metallic objects kept away from the tops of uncovered batteries? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is adequate lighting provided in operating areas? Yes\_\_\_\_\_ No\_\_\_\_\_

### **General Safety Precaution/Rules**

- ◆ Is adequate lighting provided in operating areas? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are concentrations of monoxide gas created by truck operations not in excess of the levels specified in 29 CFR 1910.93? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are brakes set and wheel chocks placed under the rear wheels of trucks? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are fixed jacks used (when necessary) on semi-trailers when not coupled to the tractor?  
Yes\_\_\_\_\_ No\_\_\_\_\_

- ◆ Do operators avoid driving their truck up to anyone standing in front of a bench or other fixed object?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are pedestrians and other workers not permitted to stand or pass underneath the elevated portion of the truck? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are unauthorized persons not permitted to ride on trucks? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers keep their arms or legs inside the running lines of the truck? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ If trucks are unattended, are the forks fully lowered, the controls neutralized, the power shut off and the brakes set? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers maintain a safe distance from the edge of ramps or platforms? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers check the flooring of trucks, trailers for breaks and weaknesses? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers leave sufficient headroom (at least 18 inches) under overhead obstructions?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ If trucks are equipped for lifting personnel, is a safety platform used with means on the platform to shut off the truck's power? Yes\_\_\_\_\_ No\_\_\_\_\_ NA \_\_\_\_\_
- ◆ Are all traffic regulations observed? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers maintain a safe distance (at least 3 truck lengths) from the truck ahead?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers avoid passing other vehicles at intersections, blind spots or other dangerous locations?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers slow down and sound the horn at cross aisles and where vision is obstructed? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ If the load obstructs the view, do drivers travel with the load trailing? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers always look in direction of path of travel? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers ascend and descend grades slowly? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers keep the load engaging means facing downgrade if the truck is unloaded? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers tilt the load back on grades (if possible) and raise the load only enough to clear the road surface? Yes\_\_\_\_\_ No\_\_\_\_\_

- ◆ Do drivers slow down for wet and slippery floors? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are trucks driven carefully and slowly over dockboards and bridgeplates? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers properly secure bridgeplates and check their rated capacity? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers approach elevators slowly and enter squarely after the elevator is properly leveled?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Once inside the elevator, do drivers neutralize the controls, shut off the power and set brakes?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Do drivers reduce speed while negotiating turns? Yes\_\_\_\_\_ No\_\_\_\_\_

### **Loading Powered Industrial Trucks**

- ◆ Are loads stable and safely arranged? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are loads always within rated capacity of the truck? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are long or high loads that may affect the truck's capacity properly adjusted? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ When attachments are used, do drivers take extra care to secure, position and/or transport the load?  
Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Is the load engaging means is placed as far under the load as possible, and the mast carefully tilted to stabilize the load? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are elevated loads not tilted forward except to deposit the load? Yes\_\_\_\_\_ No\_\_\_\_\_

### **Inspection/Fueling/Maintenance**

- ◆ Are trucks that need repair immediately removed from service? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are fuel tanks not filled when the engine is running? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are minor gasoline spills washed away and tank cap replaced before the engine is restarted?  
Yes\_\_\_\_\_ No\_\_\_\_\_ NA\_\_\_\_\_
- ◆ Are fuel system leaks corrected before truck is operated? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are repairs are made only by authorized personnel? Yes\_\_\_\_\_ No\_\_\_\_\_
- ◆ Are repairs involving fire hazards performed only in designated locations? Yes\_\_\_\_\_ No\_\_\_\_\_

- ◆ Is the battery disconnected before repairing the electrical system? Yes \_\_\_\_\_ No \_\_\_\_\_
- ◆ Are replacement parts equivalent to the original? Yes \_\_\_\_\_ No \_\_\_\_\_
- ◆ Are drivers or other personnel restricted from attaching additional counter weights to trucks unless approved by the manufacturer? Yes \_\_\_\_\_ No \_\_\_\_\_
- ◆ Are trucks examined daily before being placed into service? Yes \_\_\_\_\_ No \_\_\_\_\_.
- ◆ If used around-the-clock, are trucks are examined after each shift? Yes \_\_\_\_\_ No \_\_\_\_\_
- ◆ Are vehicles that overheat or emit sparks or flames from the exhaust removed from service? Yes \_\_\_\_\_ No \_\_\_\_\_
- ◆ Are vehicles kept clean and free of excess oil and grease? Yes \_\_\_\_\_ No \_\_\_\_\_

**Driver Training**

- ◆ Have all drivers received formal instruction and practical training from a qualified instructor in accordance with 1910.178(l)? Yes \_\_\_\_\_ No \_\_\_\_\_
- ◆ Have all drivers passed a performance test within the last three years? Yes \_\_\_\_\_ No \_\_\_\_\_

**Corrective action taken if needed:**

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**Completed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

## Appendix E

### STABILITY

Stability determination for a powered industrial depends on a few basic principles. There are many factors that contribute to a vehicle's stability:

- vehicle wheelbase;
- track;
- height;
- the load's weight distribution; and,
- the vehicle's counterweight location (if so equipped).

The "stability triangle," used in most stability discussions, demonstrates stability simply.

#### Basic Principles

Determining whether an object is stable is dependent on the object's moment at one end of a system being greater than, equal to, or smaller than the object's moment at the system's other end. This is the same principle on which a seesaw works. If the product of the load and distance from the fulcrum (moment) is equal to the moment at the device's other end, the device is balanced and will not move. However, if there is a greater moment at the device's one end, the device will try to move downward at the end with the greater moment.

Longitudinal stability of a counterbalanced powered industrial truck depends on the vehicle's moment and the load's moment. In other words, if the mathematic product of the load moment (the distance from the front wheels, the point about which the vehicle would tip over) to the load's center of gravity times the load's weight is less than the vehicle's moment, the system is balanced and will not tip forward. However, if the load-moment is greater than the vehicle-moment, the greater load-moment will force the truck to tip forward.

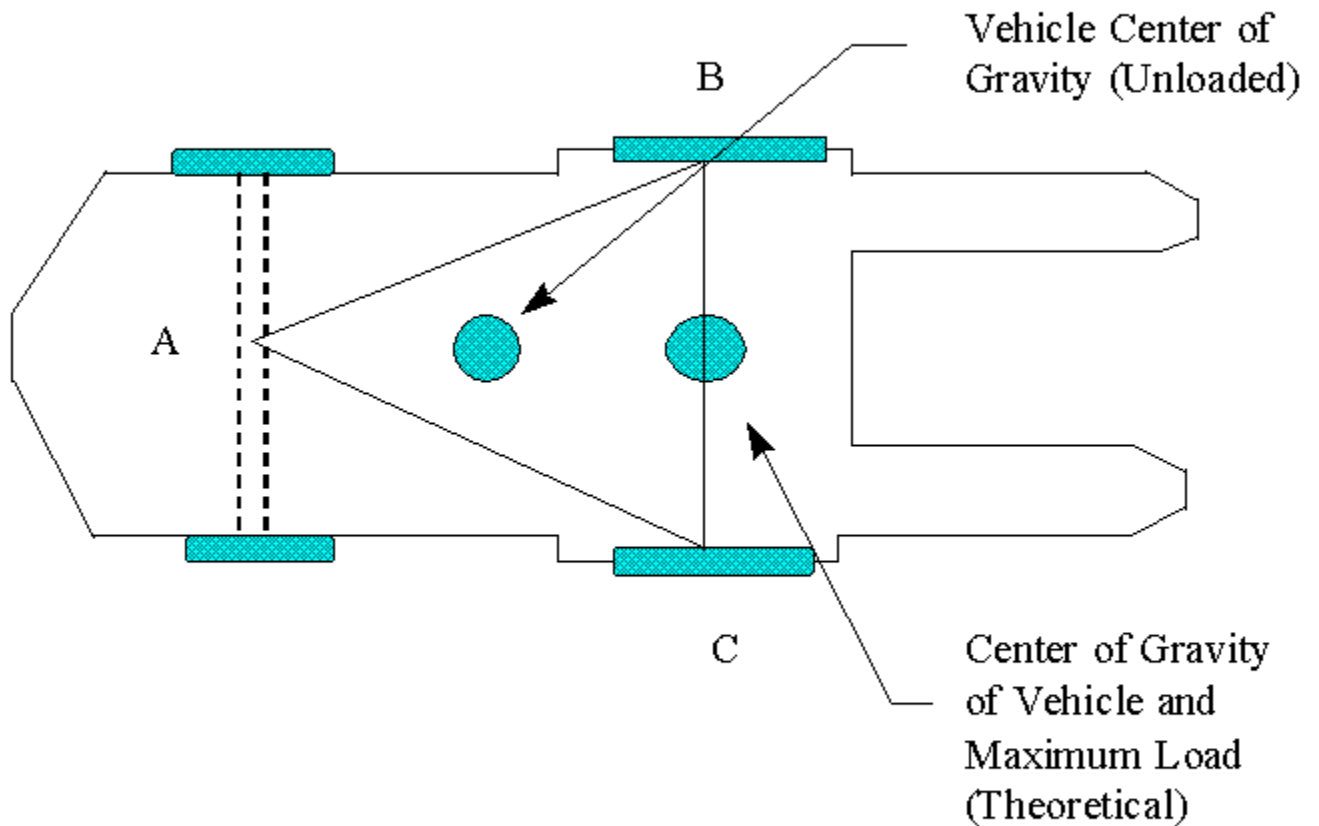
#### The Stability Triangle

Almost all counterbalanced powered industrial trucks have a three-point suspension system; that is, the vehicle is supported at three points. The truck's steer axle is attached to the truck by a pivot pin in the axle's center. When the points are connected with imaginary lines, this three-point support forms a triangle called the stability triangle.

## Industrial Truck

Note: When the vehicle's line of action, or load center, falls within the stability triangle, the

**Figure 1.**



vehicle is stable and will not tip over. However, when the vehicle's line of action or the vehicle/load combination falls outside the stability triangle, the vehicle is unstable and may tip over.

## Longitudinal Stability

The axis of rotation when a truck tips forward is the front wheels' points of contact with the pavement. When a powered industrial truck tips forward, the truck will rotate about this line. When a truck is stable, the vehicle-moment must exceed the load-moment. As long as the vehicle-moment is equal to or exceeds the load-moment, the vehicle will not tip over. On the other hand, if the load moment slightly exceeds the vehicle-moment, the truck will begin to tip forward, thereby causing loss of steering control. If the load-moment greatly exceeds the vehicle moment, the truck will tip forward.

To determine the maximum safer load-moment, the truck manufacturer normally rates the truck at a maximum load at a given distance from the front face of the forks. The specified distance from the front face of the forks to the line of action of the load is commonly called a load center. Trucks with a 30,000 pounds or less capacity are normally rated at a given load weight at a 24-inch load center. For trucks of greater than 30,000 pound capacity, the load center is normally rated at 36- or 48-inch load center distance. **To safely operate the vehicle, the operator should always check the data plate to determine the maximum allowable weight at the rated load center.**

Although the true load-moment distance is measured from the front wheels, this distance is greater than the distance from the front face of the forks. Calculation of the maximum allowable load-moment using the load-center distance always provides a lower load-moment than the truck was designed to handle. When handling unusual loads, such as those that are larger than 48 inches long (the center of gravity is greater than 24 inches) or an offset center of gravity, etc., a maximum allowable load moment should be calculated and used to determine whether a load can be safely handled.

For example, if an operator is operating a 3000 pound capacity truck (with a 24 inch load center), the maximum allowable load moment is 72,000 inch pounds (3,000 times 24). If a probable load is 60 inches long (30-inch load center), then the maximum that this load can weigh is 2,400 pounds (72,000 divided by 30).

## Lateral Stability

The vehicle's lateral stability is determined by the lines of action's position (a vertical line that passes through the combined vehicle's and load's center of gravity) relative to the stability triangle. When the vehicle is not loaded, the truck's center of gravity location is the only factor to be considered in determining the truck's stability. As long as the line of action of the combined vehicle and load's center of gravity falls within the stability triangle, the truck is stable and will not tip over. However, if the line of action falls outside the stability triangle, the truck is not stable and may tip over.

Factors that affect the vehicle's lateral stability include the load's placement on the truck, the height of the load above the surface on which the vehicle is operating, and the vehicle's degree of lean.

## Dynamic Stability

The dynamic forces that result when the vehicle and load are put into motion must also be considered. The weight's transfer and the resultant shift in the center of gravity due to the dynamic forces created

when the machine is moving, braking, cornering, lifting, tilting, and lowering loads, etc., are important stability considerations.

When determining whether a load can be safely handled, the operator should exercise extra caution when handling loads that cause the vehicle to approach its maximum design characteristics. For example, if an operator must handle a maximum weight load, the load should be carried at the lowest practical height, the truck should be accelerated slowly and evenly, and forks should be tilted forward cautiously. However, no precise rules can be formulated to cover all of these eventualities

## **APPENDIX F**

### **FREQUENTLY ASKED QUESTIONS**

**1. Who should conduct the training?**

Training and evaluation must be conducted by persons with the necessary knowledge, training, and experience to train powered industrial truck operators and evaluate their competence.

**2. If the employer does not wish to conduct the training himself, who can do the training?**

There are many resources available to the employer if he/she chooses not to perform the training himself

- truck manufacturers
- local safety and health safety organizations
- private consultants with expertise in powered industrial trucks,
- local trade and vocational schools

**3. If my employees receive training from an outside consultant, how will I know that these employees have been adequately trained?**

Outside qualified training organizations can provide evidence that the employee has successfully completed the relevant classroom and practical training. However, each employer must ensure that each powered industrial truck operator is competent to operate a truck safely, as demonstrated by the successful completion of the training and evaluation.

**4. Does OSHA require the employer to issue licenses to employees who have received training?**

No. The OSHA standard does not require employees to be licensed. An employer may choose to issue licenses to trained operators.

**5. What type of records or documentation must I keep?**

The OSHA standard requires that the employer certify that each operator has received the training and has been evaluated. The written certification record must 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.

**6. How long must I keep the certification records?**

Employers who evaluate the operator's performance more frequently than every three years may retain the most recent certification record; otherwise, certification records must be maintained for three years.

- 7. If my employees receive training, but accidents still continue to occur, what should I do?**  
Refresher training in relevant topics is necessary when the operator has been involved in an accident or near-miss incident.
- 8. Is annual training required?**  
No. An evaluation of each powered industrial truck operator's performance is required to be conducted after initial training, after refresher training, and at least once every three years.
- 9. How often must refresher training be given?**  
The standard does not require any specific frequency of refresher training. Refresher training must be provided 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 that the operator is not operating the truck safely.
  - The operator is assigned to drive a different type of truck.
  - A condition in the workplace changes in a manner that could affect safety operation of the truck.
- 10. If my employees have already received training, or have been operating trucks for many years, must I retrain them?**  
No. An employer does not need to retrain an employee in the operation of a powered industrial truck if the employer certifies that the operator has been evaluated and has proven to be competent to operate the truck safely. The operator would need additional training in those elements where his or her performance indicates the need for further training and for new types of equipment and areas of operation.
- 11. How do I evaluate my employee's competency to operate a truck safely?**  
Evaluation of an operator's performance can be determined by a number of ways, such as:
- a discussion with the employee
  - an observation of the employee operating the powered industrial truck
  - written documentation of previous training
  - a performance test
- 12. Will OSHA provide training to my truck operators?**  
No. It is the employer's responsibility to train the employees.
- 13. Will I have to train all employees in my workplace?**  
Any employee that operates a powered industrial truck must be trained.

**14. I have three different types of trucks in my workplace. Can I provide training on just one type of truck?**

If an operator will be expected to operate all three types of vehicles, then training must address the unique characteristics of each type of vehicle the employee is expected to operate. When an attachment is used on the truck to move odd-shaped materials, then the operator training must include instruction on the safe conduct of those operations so that the operator knows and understands the restrictions or limitations created by each vehicle's use.

**15. I only have powered hand trucks in my workplace. Do the training requirements cover the operators of this type of vehicle?**

Yes. The use of powered hand trucks present numerous hazards to employees who operate them and those working in the area where they are used.

**16. I employ drivers from a temporary agency. Who will provide them training - the temporary service or me?**

OSHA has issued several letters of interpretations on the subject of training of temporary employees. Basically, there is a shared responsibility for assuring employees are adequately trained. The responsibility for providing training should be spelled out in the contractual agreement between the two parties. The temporary agency or the contracting employer may conduct the training and evaluation of operators from a temporary agency as required by the standard; however, the host employer (or other employer who enters into a contract with the temporary agency) must provide site-specific information and training on the use of the particular types of trucks and workplace-related topics that are present in the workplace.

**17. Should my training include the use of operator restraint devices (e.g. seat belts)?**

Employers are required to train employees in all operating instructions, warnings, and precautions listed in the operator's manual for the type of vehicle which the employee is being trained to operate. Therefore, operators must be trained in the use of operator restraint systems when it is addressed in the operating instructions.

**18. Where can I get additional information about OSHA and new standards?**

For more information, contact your local or Regional OSHA office (listed in the telephone directory under United States Government - Department of Labor - Occupational Safety and Health Administration). OSHA also has a Home Page on the Internet. The address is:

## APPENDIX G

### SELF-ADMINISTERED WRITTEN TEST FOR POWERED INDUSTRIAL TRUCK OPERATORS

Name \_\_\_\_\_ Date \_\_\_\_\_

Indicate whether the statement is true (T) or false (F)

1.	A lift truck operator must always be able to clearly see where he/she is going regardless of the size or shape of the load.
2.	Forks should always be raised a short distance off the ground when traveling with a load.
3.	Quick starting and stopping are good operating practices.
4.	It is unsafe to carry loads that weigh more than the rated capacity of the truck
5	A forklift truck turns in exactly the same manner as an automobile
6	It is the lift truck operator's responsibility to watch out for lights, sprinklers heads, etc., which may cause overhead clearance problems.
7	A good driver will develop the habit of making fast, sharp turns.
8.	It is okay to carry an extra passenger on your truck if you have him/her sit behind you
9.	You should never leave your truck when the engine is running.
10	Since housekeeping is not a lift truck operator's responsibility, he/she should just drive right through any oil patch he might find on the floor and not report the hazard.
11	Carrying loads that weigh more than the capacity of the truck is not permitted.
12	Forks should be used only for picking up loads - not for pushing, shoving or ramming.
13	A load should be kept well back against the carriage and properly centered on the forks.
14	A driver need not worry about the rear end swing of his truck when turning a corner
15	The same weight can be lifted with the tips of the fork as can be lifted when the forks are positioned all the way under the load.
16	You may have people stand on the counterweight of your truck so that you can lift a load that weighs more than the rated capacity of the truck.
17	Always drive forward up steep ramps to avoid spilling your load.
18	It's okay to have your arm or leg outside the running lines of the truck if there are not obstacles in the work area.
19	To save your brakes, you should downshift the transmission on your truck whenever possible.
20	A safe distance under normal conditions is approximately one truck length from the truck ahead
21	It's okay to smoke when refueling as long as you don't see or smell any fuel leaking.
22	If the lift mechanism on your truck makes an unusual noise, you should tell your supervisor about it at the end of the day.
23.	Other workers may stand or pass under the elevated portion of your truck to help guide you

	when you are stacking a load.
24.	Your powered industrial vehicle should be thoroughly inspected at the beginning of the shift.
25.	You should never drive your truck up to anyone standing in front of a bench or other fixed object.

Deductions:

*(4 points for each incorrect or missing answer)*

Final Score:

*(100 points less all deductions)*

Passing Score:

*(70 points)*

FINAL SCORE \_\_\_\_\_

\_\_\_\_\_  
(Instructor's Signature)

\_\_\_\_\_  
(DATE)

**ANSWER SHEET TO WRITTEN TEST FOR  
POWERED INDUSTRIAL TRUCKS OPERATORS**

QUESTION	1.	TRUE
QUESTION	2.	TRUE
QUESTION	3.	FALSE
QUESTION	4.	TRUE
QUESTION	5.	FALSE
QUESTION	6.	TRUE
QUESTION	7.	FALSE
QUESTION	8.	FALSE
QUESTION	9.	TRUE
QUESTION	10.	FALSE
QUESTION	11.	TRUE
QUESTION	12.	TRUE
QUESTION	13.	TRUE
QUESTION	14.	FALSE
QUESTION	15.	FALSE
QUESTION	16.	FALSE
QUESTION	17.	TRUE
QUESTION	18.	FALSE
QUESTION	19.	FALSE
QUESTION	20.	FALSE
QUESTION	21.	FALSE
QUESTION	22.	FALSE
QUESTION	23.	FALSE
QUESTION	24.	TRUE
QUESTION	25.	TRUE

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