COUNTY OF HENRICO

Powered Industrial Truck Program

***Department of (insert)***



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

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***County of Henrico***

***POWERED INDUSTRIAL TRUCK PROGRAM***

## PURPOSE:

The purpose of this Powered Industrial Truck Program is to protect the health and safety of County employees assigned to operate powered industrial trucks and to comply with the Virginia Occupational Safety & Health (VOSH) requirements of 29 CFR 1910.178 (Powered Industrial Trucks).

## AUTHORITY & REFERENCE:

Virginia Department of Labor & Industry.

## RESPONSIBILITY FOR COMPLIANCE:

* 1. Department Heads, or their designees, will:
     1. Develop specific policies and procedures pertaining to the operation and maintenance of powered industrial trucks.
     2. Implement 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 when using the vehicle(s)
     3. Coordinate the training and performance testing of powered industrial truck (PIT) operators.
     4. Maintain the training certification records and performance tests of employees included in the training sessions.
     5. Periodically review the effectiveness of the program.
  2. Managers and/or supervisors will:
     1. Ensure that employees who operate powered industrial trucks in their departments have received appropriate training.
     2. Provide observations and feedback to operators to ensure safe equipment operation.
     3. Ensure that the vehicles under their responsibility are properly inspected and maintained in a safe operating condition.
  3. Powered industrial truck operators will:
     1. Operate the powered industrial truck in a safe manner.
     2. Inspect the powered industrial truck at the beginning of each work shift and complete the appropriate inspection form(s).
     3. Report equipment defects and/or maintenance needs to a supervisor immediately.

## DEFINITION OF TERMS:

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

**Backrest:** Supports the load when tipped back and adds stability.

**Carriage:** The part of the mast where the forks and backrest are mounted.

**Counterbalance Forklifts:** A forklift designed with a counterweight at the rear of the machine to balance the weight being carried by the forks in front. The higher the mast lift and the heavier the load, the more counterweight is needed in the rear. The forklift can be powered by battery, propane, gasoline or diesel fuel.

**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.

**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.

**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.

**Lift Cylinders:** Hydraulically operated single acting cylinders used to lift the carriage.

**Load Center:** The distance from the heels of the forks to the load’s center of gravity.

**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.

**Material Handling:** Any activity that involves picking up and moving materials, parts and/or finished products.

**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.

**Powered Pallet Jack:** A type of powered industrial truck designed to move palletized materials. These trucks may be called *walkies*, or *walkie riders*.

**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 form a rack or storage self.

**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.

**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.

**Side Stability:** Refers to the truck’s ability to resist tipping sideways under various loaded and unloaded conditions.

**Tilt Cylinders:** Hydraulically operated double acting cylinders used to tilt the backrest and forks. Tilt cylinders work in both forward and backward directions.

**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.

**Definitions for Stability:**

**Center of Gravity** is a point on an object at which all the object's weight can be concentrated.

**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.

**Fulcrum** is the truck's axis of rotation when it tips over.

**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).

**Lateral stability** is a truck's resistance to tipping over sideways.

**Line of action** is an imaginary line through an object's center of gravity.

**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.

**Longitudinal stability** is the truck's resistance to overturning forward or rearward.

**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.

**Track** is the distance between wheels on the vehicle's same axle.

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

## POWERED INDUSTRIAL TRUCK SAFETY RULES:

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

## 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/her view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.
4. PI Trucks will not be used to open or close freight doors.
5. The brakes of PI trucks, trailers and railroad cars will be set and wheel chocks 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 another 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 PI truck is equipped with safe seating for the passenger.
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 a load with another load.
15. Spinner knobs must not be attached to the steering handwheels of trucks not originally equipped with such knobs.
16. The forks of a powered industrial truck shall NEVER be used to lift another person unless the truck has a properly designed safety platform 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.

## 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. PI truck operators shall yield the “Right of Way” to ambulances or other emergency vehicles.
    4. The operator will slow down and sound the horn at intersections and other locations where his/her vision is obstructed.
    5. If the load being carried obstructs forward view, the operator will travel in reverse with the load trailing.
    6. If applicable, railroad tracks will be crossed diagonally whenever possible. Parking closer than eight feet from the center of railroad tracks is prohibited.
    7. Grades will be ascended or descended slowly. When ascending or descending grades more than ten 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. Avoid running over loose objects in aisleways whenever possible.
    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.

## 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 titled 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 lighting, exposed pipes and sprinkler heads.

## 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 around-the-clock 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. In areas where hazardous liquids are transferred, a well-stocked spill kit should be nearby.
    4. Spillage of excess oil or fuel will be carefully cleaned up and disposed of in according to 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 to 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 gasoline or diesel-powered trucks. This includes changing or charging batteries for electric powered vehicles.
    10. **Appendices E and F** provide additional information for affected departments.

## EQUIPMENT INSPECTION AND MAINTENANCE:

* 1. 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)**.
  2. The operator will immediately notify his/her supervisor if the truck needs repair and/or is unsafe in any way.
  3. 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.
  4. Repairs must be made by authorized personnel only.
  5. When the temperature of any part of any truck in excess its normal operating temperature, the vehicle must be removed from service. It shall not be returned to service until the source of overheating has been corrected. This includes sparking and visible flames.
  6. 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.
  7. Precautions regarding toxicity, ventilation, personal protective equipment and fire hazards are to be followed as stated on the warning label and/or the Safety Data Sheet (SDS) for that particular cleaning agent.
  8. 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.

## OPERATOR TRAINING

* 1. Only employees who have successfully completed training according to 29 CFR 1910.178(l) will be permitted to operate a powered industrial truck.
  2. Training will consist of classroom instruction (lecture, discussion videotape program written material) and hands-on training (demonstrations performed by the trainer and practical exercises performed by the trainee, plus an evaluation of the operator's performance in the assigned workplace.

**Note: The Office of Emergency Management & Workplace Safety will provide departments with a written test and answer key upon request.**

* 1. 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.
  2. The classroom training will include 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. Battery charging and/or refueling.
     7. Inspecting powered industrial trucks.
     8. Vehicle capacity.
     9. Load manipulation, stacking and unstacking.
     10. How to watch for pedestrian traffic where the vehicle will be operated.
     11. Maneuvering in narrow aisles and other restricted places.
     12. Other unique and potentially hazardous conditions in the workplace that could affect the safe operation of the vehicle.
  3. A competent person shall direct the hands-on portion of the training to ensure a new driver demonstrates the understanding and capability to operate the powered industrial truck safely according to 29 CFR 1910.178.
  4. Refresher training shall be provided 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 is assigned to drive a different type of truck.
     4. A condition in the workplace changes in a manner that could affect safe operation of the truck.
  5. An evaluation of each PIT operator's performance will be conducted at least once every three years.
  6. 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.
  7. 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.

## PROGRAM REVIEW

* 1. The Department Head, or designee, will review and evaluate the effectiveness of this program when any of the following occurs:
     1. Whenever a general truck evaluation is needed, use the *Powered Industrial Truck Safety Checklist* provided in **Appendix D**.
     2. When changes occur to the VOSH Powered Industrial Truck Standard that require a revision to this program.
     3. When changes occur to procedures that require a revision.
     4. When facility operational changes occur that require a revision.
     5. When there is an accident or near miss involving a powered industrial truck.
     6. For additional information, see **Appendix E Truck Stability,** and **Appendix F** **Frequently Asked Questions.**

# Appendix A-1

## POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST ELECTRIC FORKLIFT

**TRUCK NO:**

**Hour meter Reading:**

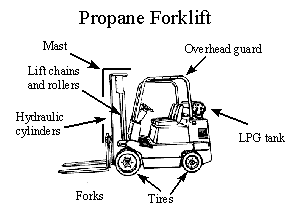
|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY OFF PROCEDURES** |  |  |  |
| Overhead guard |  |  |  |
| Hydraulic Cylinders |  |  |  |
| Mast assembly |  |  |  |
| Lift chains and rollers |  |  |  |
| Forks |  |  |  |
| Tires |  |  |  |
| Battery |  |  |  |
| Hydraulic Fluid level |  |  |  |
|  |  |  |  |
| **KEY ON PROCEDURES** |  |  |  |
| 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:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY OFF PROCEDURES** |  |  |  |
| 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 |  |  |  |
|  |  |  |  |
| **KEY ON PROCEDURES** |  |  |  |
| Front, tail and brake lights |  |  |  |
| Oil pressure indicator lamp |  |  |  |
| Ammeter indicator lamp |  |  |  |
| Hour meter |  |  |  |
| Water temperature gauge |  |  |  |

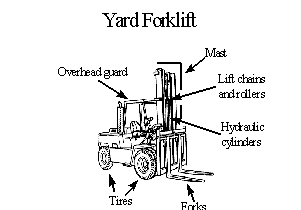
|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY ON PROCEDURES** |  |  |  |
| Steering |  |  |  |
| Brakes |  |  |  |
| Horn |  |  |  |
| Safety seat (if equipped) |  |  |  |
| Load handling attachments |  |  |  |
| Transmission fluid level |  |  |  |
|  |  |  |  |

**Additional Remarks:**

**Inspected by:**

**Date:**

**Appendix A-3**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST YARD FORKLIFT**

**TRUCK NO:**

**Hour meter Reading:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY OFF PROCEDURES** |  |  |  |
| 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 |  |  |  |
|  |  |  |  |
| **KEY ON PROCEDURES** |  |  |  |
| Front, tail and brake lights |  |  |  |
| Fuel gauge (if diesel) |  |  |  |
| Windshield wiper |  |  |  |
| Heater |  |  |  |

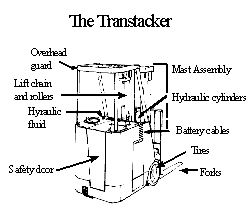
|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY ON PROCEDURES** |  |  |  |
| (with engine running) |  |  |  |
| Oil pressure indicator lamp |  |  |  |
| Ammeter indicator lamp |  |  |  |
| Ammeter |  |  |  |
| Hour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

**Additional Remarks:**

**Inspected by:**

**Date:**

**Appendix A-4**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST ELECTRIC TRANSTACKER**

**TRUCK NO:**

**Hour meter Reading:**

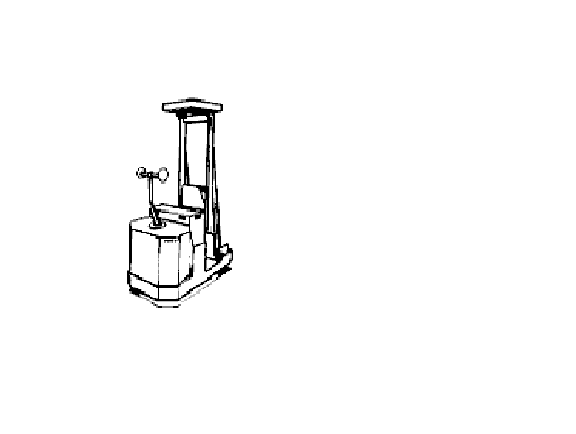
|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY OFF PROCEDURES** |  |  |  |
| Overhead guard |  |  |  |
| Hydraulic Cylinders |  |  |  |
| Mast assembly |  |  |  |
| Lift chains and rollers |  |  |  |
| Forks |  |  |  |
| Tires |  |  |  |
| Battery cables |  |  |  |
| Safety door |  |  |  |
|  |  |  |  |
| **KEY ON PROCEDURES** |  |  |  |
| 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:**

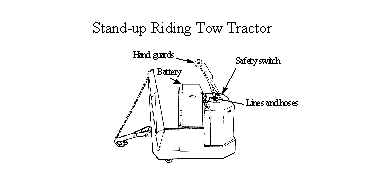
|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| The vehicle inspection: |  |  |  |
| Lines and hoses |  |  |  |
| Battery |  |  |  |
| Safety switch |  |  |  |
| Hand guards |  |  |  |
|  |  |  |  |
| Operations inspection: |  |  |  |
| 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**

**TRUCK NO:**

**Hour meter Reading:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **The vehicle inspection:** |  |  |  |
| Lines and hoses |  |  |  |
| Battery |  |  |  |
| Safety switch |  |  |  |
| Hand guards |  |  |  |
|  |  |  |  |
| **The operations inspection** |  |  |  |
| Test the brakes |  |  |  |
| Check the drive operations |  |  |  |
| Test the horn |  |  |  |
| Check the tow hook and safety catch |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Additional Remarks:**

**Inspected by:**

**Date:**

# Appendix A-7

## POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST WALKING PALLET TRUCK

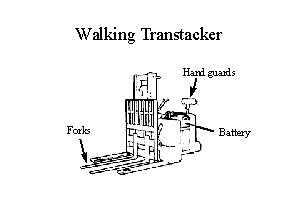
**TRUCK NO:**

**Hour meter Reading:**

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

**Additional Remarks:**

**Appendix A-8**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST WALKING TRANSTACKER**

**TRUCK NO:**

**Hour meter Reading:**

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

**Additional Remarks:**

# Appendix A-9

## POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST INDUSTRIAL PROPANE TOW TRACTOR

**TRUCK NO:**

**Hour meter Reading:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY OFF PROCEDURES** |  |  |  |
| 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 |  |  |  |
|  |  |  |  |
| **KEY ON PROCEDURES** |  |  |  |
| Test the front, tail and brake lights |  |  |  |
| Oil pressure gauge |  |  |  |
| Ammeter |  |  |  |
| Water temperature gauge |  |  |  |
| Hour meter |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | **OK** | **Not OK** |  |
| **ENGINE RUNNING PROCEDURES** |  |  |  |
| Steering |  |  |  |
| Brakes |  |  |  |
| Horn |  |  |  |
| Safety seat (if equipped) |  |  |  |
| Transmission fluid level |  |  |  |
|  |  |  |  |
|  |  |  |  |

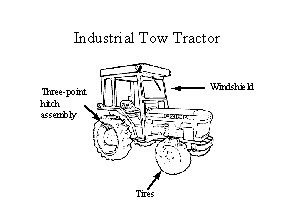
|  |  |  |
| --- | --- | --- |
| **Check each item** | Condition | Explain if not OK |

**Additional Remarks:**

**Inspected by:**

**Date:**

**Appendix A-10**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST INDUSTRIAL TOW TRACTOR**

**TRUCK NO:**

**Hour meter Reading:**

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

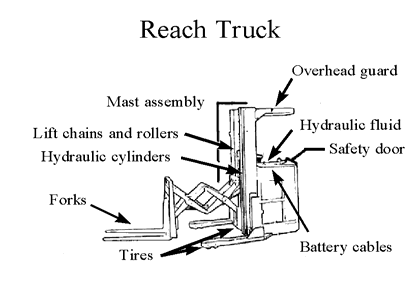
|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **ENGINE RUNNING PROCEDURES** |  |  |  |
| Windshield wiper |  |  |  |
| Brakes |  |  |  |
| Hoist operation |  |  |  |
|  |  |  |  |

**Additional Remarks:**

**Inspected by:**

**Date:**

**Appendix A-11**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST REACH TRUCK**

**TRUCK NO:**

**Hour meter Reading:**

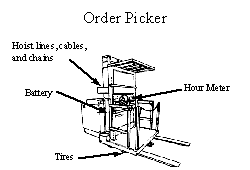
|  |  |  |  |
| --- | --- | --- | --- |
| **Check each item** | Condition | | Explain if not OK |
|  | **OK** | **Not OK** |  |
| **KEY OFF PROCEDURES** |  |  |  |
| Overhead guard |  |  |  |
| Hydraulic Cylinders |  |  |  |
| Mast assembly |  |  |  |
| Lift chains and rollers |  |  |  |
| Forks |  |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

**Additional Remarks:**

**Inspected by:**

**Date:**

**Appendix A-12**

**POWERED INDUSTRIAL TRUCK INSPECTION CHECKLIST ORDER PICKER**

**TRUCK NO:**

**Hour meter Reading:**

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

**Additional Remarks:**

**Inspected by:**

**Date:**

**Appendix A-13**

**GENERAL 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 B

## Powered Industrial Truck Training Certification

**Date:**

**Instructor:**

**Type(s) of Vehicle(s):**

|  |  |  |
| --- | --- | --- |
| **Operator's Name (Print)** | **Dept.** | **Location/Section** |
|  |  |  |
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**Appendix C**

**Summery Table of Location Classes**

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

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

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

**Appendix D**

**Alternate 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:

**Completed By: Date:**

**Appendix E Truck Stability**

**TRUCK 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

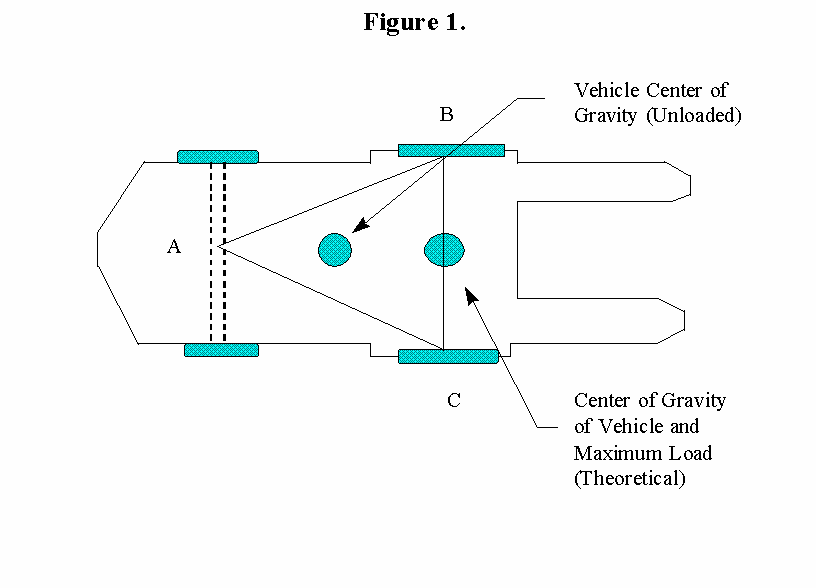
Determining whether an object is stable is dependent on the object's moment at one end of a system being greater than, equal to, or smaller than the object's moment at the system's other end. This is the same principle on which a seesaw works. If the product of the load and distance from the fulcrum (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 lad center, falls with the stability triangle, the 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 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

## 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.

1. If a department does not wish to conduct the training, who can do the training?

There are many resources available to departments that choose not to perform the training:

* + power industrial truck manufacturers
  + local safety and health safety organizations
  + private consultants with expertise in powered industrial trucks
  + contact the Office of Emergency Management & Workplace Safety for assistance

## If employees receive training from an outside consultant, what documentation will prove 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 department 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.

1. **Does VOSH require an employer (the County) to issue licenses to employees who have received training?** No. The VOSH standard does not require employees to be licensed, just that training is certified. A department may choose to issue licenses to trained operators, such as a wallet card.

## What type of training documentation is required?

The VOSH standard requires employers to certify that an 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. The County of Henrico issues cards to employees who have successfully completed the training.

## How long must certification records be maintained?

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. The County of Henrico evaluates a driver two years after initial certification and every three years thereafter unless an incident or observation indicates another re-evaluation is necessary.

## If employees have already received training, or have been operating industrial trucks for many years, must they be retrained?

No. Departments do not need to retrain an employee if 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.

## How is an employee's competency to operate an industrial truck safely evaluated?

Evaluation of an operator's performance can be determined several 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 (written or hands-on)

## Does VOSH provide training for powered industrial truck drivers?

No. It is the county's responsibility to train the employees.

## Do departments have to train all employees in the workplace?

Only employees operating powered industrial trucks must be trained.

## 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.

## 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.

## 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.

## 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.

## Where can I get additional information about VOSH compliance and any new standards?

For more information, contact the Central Region VOSH at