

Class III Operator Safety Training

Manual & Exam

Introduction

Note: The term pallet truck is used to represent all types of powered hand pallet trucks and class III tuggers.

This training program is designed to assist you in becoming a trained and authorized lift truck operator. The powered hand pallet truck is a critical piece of equipment to a company that needs to move materials from point A to point B. It can move thousands of pounds of products in a matter of minutes. The same job performed by manual labor could take hours or days. Imagine in your area how difficult it would be to do the same amount of work without a lift truck.

Information included in this pamphlet does not include all the training requirements or safety features of the program. This training program must include the CD, VHS or Web based training, this manual, hands-on training, an operator's evaluation and employer certification. Training should also include the Operator's and Owner's Manual(s) and the attachment manual(s) for the specific lift trucks and attachment the employee will be certified to operate.

Who can use a lift truck?

The Occupational Safety & Health Administration (OSHA) has very clear standards (29 CFR 1910.178(1)(6)) that employees must follow.

The **employer shall certify** that each operator has been trained and evaluated as required. Prior to the employer certifying the operator; the operator must receive classroom type training, hands-on training, and an evaluation.

Do not operate a pallet truck unless you have been trained, authorized, and employer certified on the specific class of lift truck. Once you are a certified pallet truck operator, you are responsible for always following the safety procedures outlined in this training, the truck manufacturers Owner's and Operator's Manual, and your companies policies and procedures.

Looking for Hazards

Making the workplace safe involves everyone. Keep an eye open for hazards and report them immediately to your supervisor. This chart illustrates that safety hazards can be anywhere.

People

- Untrained
- Indifferent (attitude)
- Stepping into path
- Horseplay
- Human error

Materials

- Unstackable
- Stacked too high
- Bulky
- Blocks vision
- Unevenly distributed

Equipment

- Inadequate maintenance
- Design difference
- Wrong for the job
- Visibility restrictions
- No safety markings

Environment

- Congested areas
- Poor lighting
- Layout
- Uneven floors
- Weather
- Slippery floors

Operating Instructions, warnings and precautions

Prior to operating a pallet truck you should have reviewed the Operator/Owner's Manual for that specific truck. The manual provides specific information for the operation of that specific pallet truck. There may also be specific warnings or precautions for pallet truck operations. These warning or precautions might be found in the operator's and owner's manual(s), attachment manual(s), or posted on the lift truck(s).

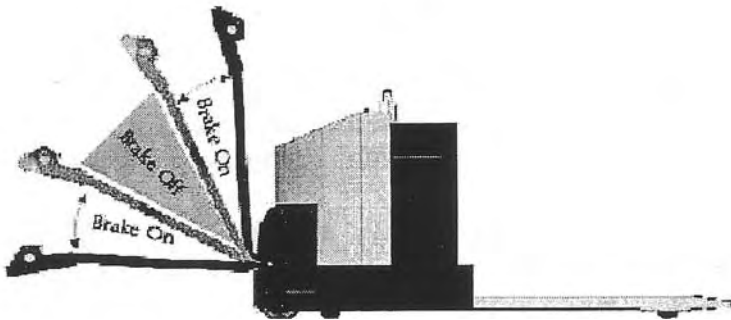
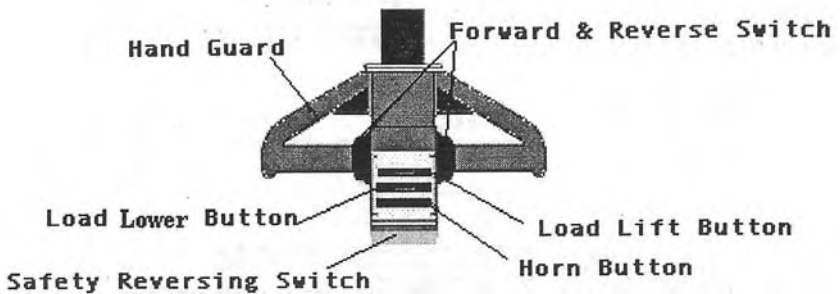
Differences between the lift truck and the automobile

A pallet truck is a mobile, powered propelled truck used to carry, push, pull, and lift material. Pallet trucks are significantly different from automobiles. Pallet trucks are equipped with forks designed to move material weighing several thousand pounds. Automobiles are not designed for this purpose. Automobiles are not designed to carry heavy loads at one end of the vehicle.

Pallet truck steering is from the rear while automobile steering, in most cases, is front wheel drive.

To learn more about the differences between the pallet truck and the automobile, please refer to the Truck Related Topics Section of the Operator Safety Training Program.

Controls

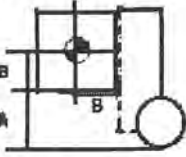


The specific controls and instrumentation of your pallet truck should be discussed during the hands-on portion of the training and the specific trucks Operator's and Owner's Manual.

Capacity

All pallet truck capacities are required to be identified by a securely fastened and legible nameplate. The nameplate contains vital information about the truck's capacity. Generally, a pallet truck can lift a load up to six inches and may have a capacity as high as 8,000 pounds. If the pallet truck is modified in any way or has an attachment added, you must have prior written approval from the lift truck manufacturer. The nameplate will show the maximum weight the pallet truck can lift.

Nameplate for electric trucks

TOYOTA ELECTRIC FORKLIFT TRUCK																					
MODEL			MAST																		
SERIAL NO.			BACKTILT																		
TYPE	VOLTAGE	ATTACH																			
FRONT TREAD			TIRE FR SIZE RR																		
BATTERY TYPE		BATTERY WT MIN/MAX																			
MAX LIFT HT. "A"		IN.	TRUCK WT W/O BATTERY	LB.																	
				LB.																	
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<p>⚠ WARNING IMPROPER OPERATION OR MAINTENANCE COULD RESULT IN INJURY OR DEATH. TRAINED OPERATORS ONLY. READ OPERATOR'S MANUAL FIRST.</p>																					

MODEL - The model of the truck

SERIAL NO. - The frame number of the truck.

MAST - Not Applicable

BACK TILT - Not Applicable

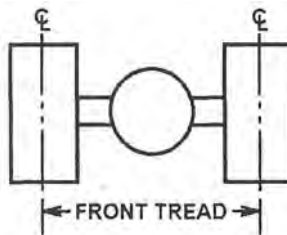
ATTACH - The attachment that is approved for this truck

TYPE - The type of power needed to operate the truck as designed and safety rating.

VOLTAGE - This is the operating voltage of the truck.

BATTERY TYPE - This defines the minimum safety rating for the battery for this specific truck.

FRONT TREAD - In both metric and inches.



FRONT TREAD TIRE SIZE - The required tire size for both axles to meet the stability requirements as the truck was designed.

TRUCK WEIGHT W/O BATTERY - The approximate weight of the truck without the battery including attachment weight. In both metric and pounds.

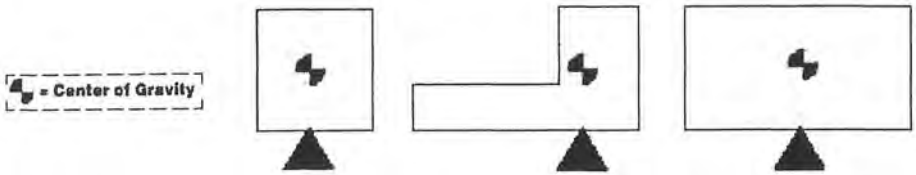
BATTERY WEIGHT MIN/MAX The minimum and maximum weight of the battery that can be installed in this truck to meet the design stability requirements. In both metric and pounds.

RATED CAPACITY WITH VERTICAL MAST EQUIPPED AT MAX. LIFT HEIGHT -Not Applicable

Stability

Many pallet trucks are like a tricycle, with only three wheels. If the pallet truck is turned too quickly or stopped abruptly, the truck can become unstable. If this happens you can lose control or drop the load.

Center of Gravity: Simply put, it is the place at which an object will balance on a single point. Common sense dictates that the Center of Gravity is usually at the center of an object. But look at the diagram below:



Notice the shape of these loads alter their Center of Gravity

Maneuvering

Driving the pallet truck at excessive speed can result in loss of control, causing the vehicle to skid, tip over, or fall off a loading dock or other elevated surfaces.

It is important to follow these basic rules in maneuvering the pallet truck:

- When making a turn, reduce speed to a safe level, turn steering wheel in a smooth, sweeping motion.
- Only handle stable and safely arranged loads. Never move a load outside the truck's rated capacity.
- Pallet trucks shall not be driven up to anyone standing in front of a bench or fixed object.
- Observe all traffic regulations including the facility speed limits.
- Keep at least three truck lengths away from other trucks going in the same direction.

Visibility

When operating a pallet truck, you must understand the potential hazards of obstructed visibility. There are many things that could impede visibility,

such as: loads on forks, lighting, racks, building columns, blind intersections, tractor trailers and pedestrians to name a few.

When traveling with a load that blocks your forward view, you must travel in reverse or use a person to guide you.

Attachments

Attachments allow the pallet truck to lift and carry specialized loads. When operating a pallet truck adapted for a specialized task, you are responsible for understanding how to use the attachment safely.

Modifications and additions to a pallet truck which could effect its capacity and safe operation shall not be performed by the customer or user without manufacturer's prior written approval.

Review the Attachment operator's manual for the correct use of the equipment. Hands-on training of any and all special pallet truck attachments must be completed before certification.

Operating Limitations

Pallet trucks are used in almost all material handling applications. They can carry, push, pull, and lift material.

Safe operation of a pallet truck can be limited by factors such as: weight capacity, surface grades, work environment, aisle width and presence of hazardous materials. All can limit the operation of a pallet truck.

Many accidents have occurred because' of operating a pallet truck beyond its limits. Always review the nameplate to ensure that you are aware of the weight limitations.

Workplace Related Topics

These topics are required to be discussed as per 29 CFR 1910.178(1)(3)(ii).

These topics should be discussed with your supervisor or the person responsible for safety or lift truck training.

These topics should include but not be limited to the following:

- Surface conditions where the vehicle will be operated;
- Composition of loads to be carried and load stability;
- Load manipulation, stacking, and unstacking;
- Pedestrian traffic in areas where the vehicle will be operated;
- Narrow aisles and other restricted places where the vehicle will be operated;
- Hazardous (classified) locations where the vehicle will be operated;
- Ramps and sloped surfaces that could affect the vehicle's stability;
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

OPERATOR CHECKLIST

1. SAFE OPERATING CONDITION

Any powered hand pallet truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel.

2. LOCATION

No repairs shall be made in Class I, II, or III Locations (hazardous materials areas).

3. FIRE HAZARDS

Repairs to the electrical systems of pallet trucks which involve fire hazards shall be conducted only in locations designated for such repairs.

4. ELECTRICAL

Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

5. PARTS

All parts of any such pallet truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.

6. ALTERATIONS

Pallet trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts.

7. DAILY INSPECTION Pallet trucks shall be examined before being placed in service and shall not be placed in service if the examination shows condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Where pallet trucks are used on a

round-the-clock basis, they shall be examined before each shift. Defects when found shall be immediately reported and corrected.

8. TEMPERATURE When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until cause for such overheating has been eliminated.

9. CLEANING Pallet trucks shall be kept in a clean condition, free from lint, excess oil, and grease. Non-combustible agents should be used for cleaning trucks. Low flash point (below 100°F solvents shall not be used, High flash point (at or above 100°F solvents may be used. Precautions regarding toxicity, ventilation, and fire hazards shall be consistent with the agent or solvent used.

Safety Checks

- To begin your inspection, be sure that the key is in the off position.
- Disconnect the battery cables. Inspect the battery connectors and cables to see that they are clean and in good condition. Make sure that the battery gates are in place.
- Check the wheels for any signs of gouges or foreign objects
- Test all controls to ensure that they operate correctly and lift/lower motions are free and smooth.
- Check to be sure that the control handle returns freely to full upright and sets the brake automatically.
- Make sure that all safety and warning decals on the truck are clearly visible and legible.
- Inspect the truck for any fluid leaks.
- Reconnect the battery cables.
- Turn the key to the "on" position.
- Check the steering mechanism for any problems with movement.
- Test the brakes by moving the control handle to both the raised and lowered positions.
- Check the direction control and plugging functions.
- Inspect the lift and lower controls.
- Ensure that the safety reversing switch is in proper working order.
- Make sure that the horn works.

TOYOTA

Material Handling, U.S.A., Inc.

www.toyotaforklift.com

Date: _____ Time: _____

Operator: _____

Shift: _____ Truck #: _____

Hand Pallet Lift Truck Check List

Check NO where problems are detected.

Visual Inspection

NO COMMENTS

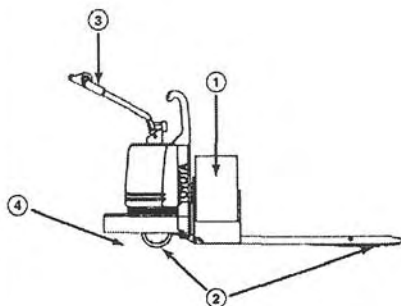
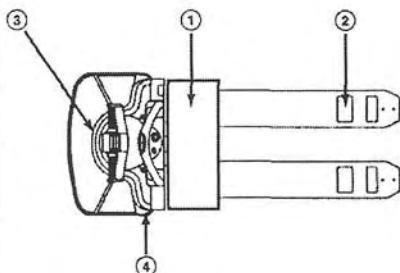
1. Battery _____
Vent Caps _____
Connector Covers _____
Cables _____
Retainer Plate _____
2. Wheels _____
3. Controls _____
4. Fluid Leaks _____

Operational Inspection

NO COMMENTS

- A. Listen for Unusual Noise _____
- B. Check Brake _____
- C. Lifting Control _____
- D. Tilt Control _____
- E. Forward Driving _____
Steering _____
Braking _____
- F. Reverse Driving _____
Steering _____
Braking _____
Backup Alarm (optional) _____
- G. Horn _____
- H. Gauges _____
- I. Oil spots on floor _____

Hand Pallet Walkaround



SIGNATURE:

CAUTION: This is not a complete list of all items which may require attention. Operators are responsible for ensuring that the lift truck is in proper working condition in accordance with the manufacturer's specifications.

DO NOT operate a lift truck if a problem is detected. Remove the keys, tag "Out of Operation," and report immediately.

OPERATING SAFETY RULES AND PRACTICES

Outlined per ASME B56.1 2000 section 5.1

Operator Responsibility

- Safe operation is the responsibility of the operator.
- The operator shall develop safe work habits and also be aware of hazardous conditions in order to protect themselves, other personnel, the truck and other materials.
- The operator shall be familiar with the operation and function of all controls and instruments before undertaking to operate the truck.
- Before operating any truck, operators shall have read and be familiar with the operator's and owner's manual for the particular truck being operated and they shall also abide by all safety rules and practices.

General Safe Operation

- Unauthorized personnel shall not be permitted to operate material handling equipment.
- Never ride on a pallet truck that was not designed for a rider.
- If you are on a rider truck, never dismount until it has come to a complete stop.

Safe loading/unloading

- Approach the load squarely with forks level. While not part of the pallet truck: attention should be given to the condition of pallets.
- Loads should not be shifted by butting with the truck.
- Ensure the forks are under the pallet all the way and the load wheels are not contacting the pallet frame.
- Raise the load for traveling.
- It is the responsibility of the operator to ensure that a load is properly and neatly stacked, and where applicable, secured.
- Place the heaviest objects nearest the bottom of the load.
- Round objects should be blocked.
- It is the responsibility of the operator to know the capacity and gross weight of their loaded truck. Operate and travel only in areas approved for your load.
- The operator will always carry loads in the lowered position.
- If the stack area is not level, the approach must be from the uphill side and the truck must be **LEVEL** laterally before the load is raised.

OPERATING A LIFT TRUCK SAFELY

Traveling

- Pallet trucks shall not be driven up to anyone standing in front of a bench or other fixed object.
- Operators shall ensure that no passengers ride on the pallet truck.
- Keep legs and feet inside the confines or guards of the lift truck.
- Operators must look around before starting to move. A safe distance will be maintained from the edge of ramps or platforms while on any elevated dock.
- Always travel with the pallet truck forks as low as possible.
- Avoid driving over loose objects or holes in the floor.
- Always look in the direction of travel before moving, particularly when traveling in reverse. This includes the short reverse movement which is required when turning the truck around in confined spaces.
- Watch the swing of the pallet truck when turning corners. While negotiating turns, reduce speed to a safe level. Turn a smooth motion. Except when maneuvering at a very low speed, the steering shall be completed at a moderate even rate.
- It is the responsibility of the operator to maintain a safe speed at ALL times. It is the responsibility of the operator to reduce vehicle speed when traveling on uneven road surfaces.
- The operator will reduce speed when: on wet and slippery floors, in congested areas, descending ramps or inclines, crossing bridge plates, vision is restricted, carrying a load or traveling over uneven surfaces.
- All starts, stops and turns should be easy and gradual, particularly when the truck is loaded.
- Keep to the right when passing. Operators must be sure the operator of another vehicle is aware of his presence and intended action.
- Maintain a distance of 3 truck lengths behind another truck going in the same direction.
- Slow down and sound horn (short blasts) at cross aisles, doorways, or when approaching other trucks.
- Always be aware of Pedestrians.
- The operator will stop and sound the horn at blind corners, railway crossings, elevators or whenever vision is obscured. Operators must always be alert and look for pedestrians.

- The operator will travel in reverse if the load being carried obstructs forward view.
- Other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations, shall not be passed
- All traffic regulations shall be observed, including authorized plant speed limits
- Under all travel conditions, the truck will be operated with complete control at all times, inside or outside of the plant
- Stunt driving and horse play will not be permitted
- Operation on ramps or inclines requires special attention. Brakes should be tested and speed reduced before descending. No person shall be permitted to walk down ramps ahead of the truck. Extreme caution is required when operating near the edge of ramps & docks
- The operator will always travel straight up and straight down ramps. Never attempt to turn the vehicle while on a ramp.

Docks

- Make sure that bridge plates are clean and dry, sufficiently strong and properly secured to prevent sliding.
- Railway cars or transport trucks must have their wheels blocked. Dock locks or other devices for securing transport trailers to loading docks must be used whenever available. The floor of trucks and railway cars should be checked before entering, and worn or unsafe conditions should be reported to the supervisor.
- Fixed jacks may be necessary to support a semi trailer during loading or unloading when the trailer is not coupled to a tractor.

Parking

- When leaving the truck for any reason, all the controls of the pallet truck will be placed in neutral and the BRAKES applied. The forks will be lowered to the floor and power shut off.
- Pallet trucks should be parked away from aisles, doorways, railway tracks or fire routes and fire equipment.
- Correct parking is particularly important when stopped near elevators, ramps, docks, etc. Parking in this case will be done parallel with the edge.
- If necessary to park on an incline, the wheels must be blocked.
- At the end of a shift or day, the lift truck will be returned to its designated storage area.

Ramps

Do not operate the Model 6TB50 on any incline.

Operate on grades in excess of 5% with load end (with or without a load) down grade. If the load restricts visibility, or requires the load backrest to retain the load, travel with load end up grade, with the operator positioned off to one side.

Tow Tractor

Turning corners with trailers requires special attention. The longer the trailer load, the wider the turn should be made (unless the trailers are a self-following type).

Tow tractors do not have a lifting capacity, however, the nameplate will indicate a maximum towing capacity. This is also known as the "draw bar pull" capacity.

Special care should be taken when descending on grades with a tow tractor. Ensure the load is secure and will not fall forward towards the operator. Greater stopping distance is required when loaded or when traveling on a downhill grade.

Special Requirements

- A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling.
- Only approved pallet trucks shall be operated in hazardous locations.
- Only stable or safely arranged loads shall be handled.
- When attachments are used, particular care should be taken in securing, manipulating, positioning and transporting the load. Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.
- Any pallet truck not in safe operating condition shall be removed from service. All repairs to be made by authorized personnel only.
- Pallet trucks shall be examined before being placed in service and where pallet trucks are used on a round-the-clock basis, they shall be examined before each shift. Defects, when found, shall be immediately reported.

- Vehicle stability is greatly affected by the types of tires used. Each design of tire has its specific purpose.

BATTERY CARE AND RECHARGING

Batteries

Batteries are an extremely efficient and clean method of providing power to a lift truck. However, like any energy source, batteries can also cause damage and injury if improperly handled.

This module will focus on the safe handling of batteries, since poor maintenance practices can also reduce the life of the battery by 50%.

How a Battery Works

Basically, each cell consists of a positive plate (+) and a negative plate (-) immersed in a solution of sulfuric acid and water. This solution is called "electrolyte". Each cell produces about 2 volts of power. As the battery is discharged, the acid becomes weaker to a point where it cannot produce a current. To recharge the battery, the terminals are connected to an AC source (charger) which restores the acidity of the electrolyte, enabling the battery to be used.

Changing and Charging Storage Batteries

LOCATION

Battery charging installations shall be located in areas designated for that purpose.

TRUCK POSITION

Before changing or charging a battery, turn the key to the "off" position and set the parking brake.

FACILITIES

Facilities shall be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.

HANDLING A conveyor, overhead hoist, or equivalent material handling equipment shall be provided for handling batteries.

REINSTALLING Reinstalled batteries shall be properly positioned and secured in the truck.

ELECTROLYTE

A carboy tilter or siphon shall be provided for handling electrolyte.

CHARGING

Match the correct charger to the battery and verify if it has the correct voltage and capacity. It should be rated to charge the battery in an eight hour time period or less.

BATTERY INSPECTION Never use a match or lighter to examine a battery, since batteries can produce explosive vapors. Use a flashlight to check electrolyte.

SMOKING

Smoking shall be prohibited in the charging area

OPEN FLAMES

Precautions shall be taken to prevent open flames, sparks, or electrical arcs in battery charging areas

TOOLS

Tools, jewelry and other metallic objects shall be kept away from the top of the batteries

BATTERY RESTRAINT SYSTEM

After placing a battery into a lift truck, install the battery restraint system. This will secure the battery in place in case of an accident such as a tip-over situation.

Ten Tips For Safe Battery Handling

FOLLOW THE MANUFACTURER'S INSTRUCTIONS

Neglecting the manufacturer's maintenance instructions can shorten battery life.

INSPECT THE CONNECTORS

A loose or pitted connector can cause dangerous arcing or sparking. Don't use the connector as a circuit breaker. Always shut off the charger when connecting or disconnecting the battery.

WATER REGULARLY

Only add water to battery prior to charging if the fluid level is below the plates. Add water only to plate level. After charging is completed, top-off with water. Charging increases the electrolyte level in cells and can cause overflowing if watered level is above plate level. Overflowing means a loss of electrolyte.

KEEP IT CLEAN

Batteries should be kept clean and dry. If electrolyte is spilled on top of the battery, neutralize it immediately with a solution of baking soda and

water or a neutralizing solution. Always wear a faceshield, rubber gloves and a rubber apron when cleaning batteries.

DON'T LAY TOOLS ON TOP

Battery gases are explosive. Short circuits can cause sparks which may result in an explosion and possible damage to the battery and surrounding area.

KEEP VENT CAPS IN PLACE

Vent caps allow gases to escape and they keep foreign objects from falling into the cell. Remove vent caps only to add water or to take hydrometer readings. At all other times, keep them securely in place, especially during charging and cleaning.

KEEP IT COOL

A normal charge can increase the temperature of a battery by 15 degrees or more. Operating hot batteries shortens their overall life, so allow them to cool down before putting back into service.

DO NOT OVER CHARGE No amount of overcharging will increase battery output beyond its rated capacity. In fact, overcharging will substantially reduce battery life.

NO SMOKING Always charge batteries in a well-ventilated area. Do not smoke and make sure there are no sparks or open flames in the area.

IN CASE OF AN ACCIDENT

If electrolyte comes in contact with your eyes or skin, rinse thoroughly with water for at least 15 minutes and seek medical attention immediately.

Terminology of Batteries

CELL: A unit in the battery consisting of one positive (+) plate and one negative (-) plate. Each cell has its own vent cap.

CHARGING: When a battery has been discharged, a charger must be connected to the battery. Charging returns the battery to its maximum ability to deliver current.

CYCLE: A cycle consists of one discharge and one charge. There are a limited number of cycles that a battery can take.

ELECTROLYTE: The solution that is found in the battery. It consists of sulfuric acid and water.

GASSING: When a battery is being charged, hydrogen gas is produced. This is why smoking, open flames and other forms of ignition are not allowed in the area.

HYDROMETER: The instrument that measures the density or specific gravity of the electrolyte. A full charge measures approximately 1.290 (high acid content). A discharged battery will indicate approximately 1.120 (low acid content). Review the battery manufacturer's manual for specific readings for that specific battery.

VENT CAP: Each cell has a vent cap to allow the gases to escape while keeping foreign material out of the cell.

CLASSES OF FORKLIFTS:

Class 1

Electric motor, counterbalance, rider trucks (solid or pneumatic tires)

Class 2

Electric motor, narrow aisle trucks (solid tires)

Class 3

Electric motor hand trucks or hand/rider trucks (solid tires)

Class 4

Internal combustion engine trucks (solid tires)

Class 5

Internal combustion engine trucks (pneumatic tires)

Class 6

Electric & internal combustion engine tractors (solid & pneumatic tires)

Class 7

Rough terrain trucks (pneumatic tires)



UL Rating - Hazardous Materials

In many cases, pallet trucks are required to work around materials that are highly flammable such as acetones or grain dust. A spark from the electrical or exhaust system could ignite this material, causing a serious fire.

For this reason, a nationally recognized testing laboratory, Underwriters Laboratories (UL), has designed specifications for manufacturers to meet in order for lifting equipment to work in hazardous locations.

If you are working with materials that are flammable, be sure that the pallet truck you are using has the proper designation and is in good working order.

Summary Table on Use of Industrial Trucks in Various Locations

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

How does the rating system work?

An area where flammable material is stored is broken down into two classifications. First, determine the **Group** the material is classified under. Gasoline and acetone are grouped together because they react similarly in conditions needed to ignite them. Second, the **Class** determines the amount of materials exposed. The greater amount present in the air, the more safeguards that need to be in place.

For additional information regarding powered industrial trucks rating please review National Fire Protection Agency 505 "Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operation".

FINAL EXAM

Please answer the following questions.

Some questions have more than one correct answer.

Circle **ALL** the correct answers.

1. Who is allowed to operate pallet truck equipment?
 - a) anyone with a valid drivers license.
 - b) someone who has 3 months experience.
 - c) only those who have read the operator's manual.
 - d) only trained and authorized personnel that are employer certified.

2. Once a person has been trained to operate a pallet truck, they are authorized to use any type of lifting device.
 - a) True.
 - b) False.

3. The Industrial Truck Association has placed powered industrial trucks into how many classes?
 - a) 3
 - b) 10
 - c) 7
 - d) 6

4. Fast and sudden maneuvers are the safest manner of moving a lift truck.
 - a) True
 - b) False

5. What are you looking for when inspecting the wheels?
 - a) Cracks or gouges.
 - b) String or debris caught around the wheels.
 - c) Bond failure between tire and rim.
 - d) Chunks of tire missing or falling off.

6. The inspection of the pallet truck should be performed when?
 - a) Beginning of each shift.
 - b) Every 40 Hours.
 - c) When strange noises are heard.

7. A nameplate is not required if the operator knows the capacity of the lift truck?
 - a) True.
 - b) False.

8. When the pallet truck is left unattended, the forks must be placed:
- Above eye level.
 - 4" to 6" above the ground.
 - On the floor.
9. You may carry a pedestrian on the pallet truck when:
- There is enough room for two people in the operator's compartment.
 - It is approved by the supervisor.
 - Under no circumstances.
10. When the truck is in motion, it is not necessary to sound the horn at intersections and blind spots.
- True.
 - False.
11. Remove all metallic jewelry before working around batteries because:
- You may lose them.
 - The jewelry is magnetized to the battery.
 - If the jewelry touches the battery, you may be burned.
12. When a battery is being charged, it produces oxygen and
- Hydrogen.
 - Methane.
 - Helium.
13. What protection is to be worn when working around batteries?
- Face shield.
 - Rubber gloves
 - Rubber apron.
14. If battery acid splashes on your skin or eyes, what should you do first?
- Wipe it off with a rag or cloth and seek medical attention.
 - Seek medical attention if it starts to burn.
 - Rinse with water for at least 15 minutes and seek medical attention immediately.

(SEE FOLLOWING PAGE FOR ANSWERS)

Answers

1. d
2. b
3. c
4. b
5. a, b, c, d
6. a
7. b
8. c
9. c
10. b
11. c
12. a
13. a, b, c
14. c

TEXT OF THE CAL/OSHA INDUSTRIAL TRUCK SAFETY REGULATIONS POSTER

§3664(a) Every employer using industrial trucks or industrial tow tractors shall post and enforce a set of operating rules including the appropriate rules listed in Section 3650(s).

§3650(s) Industrial trucks and tow tractors shall be operated in a safe manner in accordance with the following operating rules:

- (1) Only drivers authorized by the employer and trained in the safe operations of industrial trucks or industrial tow tractors pursuant to Section 3668 shall be permitted to operate such vehicles.
- (2) Stunt driving and horseplay are prohibited.
- (3) No riders shall be permitted on vehicles unless provided with adequate riding facilities.
- (4) Employees shall not ride on the forks of lift trucks.
- (5) Employees shall not place any part of their bodies outside the running lines of an industrial truck or between mast uprights or other parts of the truck where shear or crushing hazards exist.

- (6) Employees shall not be allowed to stand, pass, or work under the elevated portion of any industrial truck, loaded or empty, unless it is effectively blocked to prevent it from falling.
- (7) Drivers shall check the vehicle at the beginning of each shift, and if it is found to be unsafe, the matter shall be reported immediately to a foreman or mechanic, and the vehicle shall not be put in service again until it has been made safe. Attention shall be given to the proper functioning of tires, horn, lights, battery, controller, brakes, steering mechanism, cooling system, and the lift system for fork lifts (forks, chains, cable, and limit switches).
- (8) No truck shall be operated with a leak in the fuel system.
- (9) Vehicles shall not exceed the authorized or safe speed, always maintaining a safe distance from other vehicles, keeping the truck under positive control at all times and all established traffic regulations shall be observed. For trucks traveling in the same direction, a safe distance may be considered to be approximately 3 truck lengths or preferably a time lapse--3 seconds--passing the same point.
- (10) Trucks traveling in the same direction shall not be passed at intersections, blind spots, or dangerous locations.
- (11) The driver shall slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.
- (12) Operators shall look in the direction of travel and shall not move a vehicle until certain that all persons are in the clear.
- (13) Trucks shall not be driven up to anyone standing in front of a bench or other fixed object of such size that the person could be caught between the truck and object.
- (14) Grades shall be ascended or descended slowly.
- (A) When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.
- (B) On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface. (C) Motorized hand and hand/rider trucks shall be operated on all grades with the load-engaging means downgrade.

- (15) The forks shall always be carried as low as possible, consistent with safe operations.
- (16) When leaving a vehicle unattended (the operator is over 25 feet (7.6 meters) from or out of sight of the industrial truck), the brakes are set, the mast is brought to the vertical position, and forks are left in the down position, either:
- (A) The power shall be shut off and, when left on an incline, the wheels shall be blocked; or
 - (B) The power may remain on provided the wheels are blocked, front and rear.
- (17) When the operator of an industrial truck is dismounted and within 25 feet (7.6 meters) of the truck which remains in the operator's view, the load engaging means shall be fully lowered, controls placed in neutral, and the brakes set to prevent movement. Exception: Forks on fork-equipped industrial trucks may be in the raised position for loading and unloading if the forks are raised no more than 42 inches above the level where the operator/loaders are standing, and the power is shut off, controls placed in neutral and the brakes set. If on an incline, the wheels shall be blocked.
- (18) Vehicles shall not be run onto any elevator unless the driver is specifically authorized to do so. Before entering an elevator, the driver shall determine that the capacity of the elevator will not be exceeded. Once on an elevator, the industrial truck's power shall be shut off and the brakes set.
- (19) Motorized hand trucks shall enter elevators or other confined areas with the load end forward.
- (20) Vehicles shall not be operated on floors, sidewalk doors, or platforms that will not safely support the loaded vehicle.
- (21) Prior to driving onto trucks, trailers and railroad cars, their flooring shall be checked for breaks and other structural weaknesses.
- (22) Vehicles shall not be driven in and out of highway trucks and trailers at loading docks until such trucks or trailers are securely blocked or restrained and the brakes set.
- (23) To prevent railroad cars from moving during loading or unloading operations, the car brakes shall be set, wheel chocks or other recognized positive stops used, and blue flags or lights displayed in accordance with

applicable regulations promulgated by the Public Utilities Commission.

(24) The width of one tire on the powered industrial truck shall be the minimum distance maintained from the edge by the truck while it is on any elevated dock, platform, freight car or truck.

(25) Railroad tracks shall be crossed diagonally, wherever possible. Parking closer than 8 1/2 feet from the centerline of railroad tracks is prohibited.

(26) Trucks shall not be loaded in excess of their rated capacity.

(27) A loaded vehicle shall not be moved until the load is safe and secure.

(28) Extreme care shall be taken when tilting loads. Tilting forward with the load engaging means elevated shall be prohibited except when picking up a load. Elevated loads shall not be tilted forward except when the load is being deposited onto a storage rack or equivalent. When stacking or tiering, backward tilt shall be limited to that necessary to stabilize the load.

(29) The load engaging device shall be placed in such a manner that the load will be securely held or supported.

(30) Special precautions shall be taken in the securing and handling of loads by trucks equipped with attachments, and during the operation of these trucks after the loads have been removed.

(31) When powered industrial trucks are used to open and close doors, the following provisions shall be complied with:

(A) A device specifically designed for opening or closing doors shall be attached to the truck.

(B) The force applied by the device to the door shall be applied parallel to the direction of travel of the door.

(C) The entire door opening operation shall be in full view of the operator.

(D) The truck operator and other employees shall be clear of the area where the door might fall while being opened.

(32) If loads are lifted by two or more trucks working in unison, the total weight of the load shall not exceed the combined rated lifting capacity of all trucks involved.