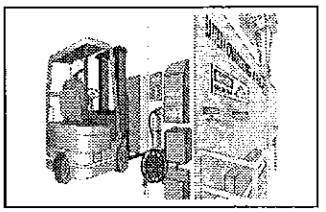


Forklifts—Battery Charging

Overview Of Topic

Do you pour acid into water, or is it water into acid? According to OSHA's forklift regulation, when charging a battery, acid must be poured into water, never water into acid.

This can be confusing, because for the most part, distilled water is all you need to add to maintain the water level in battery cells. This water loss results from normal vehicle operations that cause water in the battery cells to evaporate. What OSHA is referring to in the forklift standard at 29 CFR 1910.178(g)(7) is the initial mixing of sulfuric acid with water to create an electrolyte solution. Electrolyte solution is added to battery cells when the acid level in the cells is so low that a charge cannot be maintained.

What is electrolyte?

Electrolyte is a substance that conducts electricity when it is dissolved in water. Pure water by itself will not carry an electric current, but by adding sulfuric acid to the water, an electrolyte solution is created that allows the electric current to pass. Concentrated sulfuric acid is mixed with distilled water to make the electrolyte solution that surrounds the electrodes in battery cells. This process is necessary for the battery to produce energy to drive the engine.

What are the hazards?

The chemical reaction of mixing sulfuric acid with water can create a violent reaction, resulting in the generation of heat. Because of this reaction, when mixing an electrolyte solution for forklift batteries, always add acid to the water to avoid the hazard of smoking and splattering.

Transferring acid

It's a good idea to use a siphon or tilter when transferring acid from a large container because it's much easier to control, making less chance for spilling or splashing. Also, during this procedure, it's essential to wear protective equipment such as gloves, long sleeves, and goggles because splashed acid will eat holes in skin and clothing.

Low electrolyte levels

When the electrolyte level is low:

- Clean off the top of the battery.
- Remove the battery's filter caps and add distilled water to the cells.
- Tighten the caps securely after the cells are filled.

If the fluid level in the cells is low, add distilled water before charging. Never add water immediately after a charge.

Charging the battery

When the battery needs charging:

- Make sure that your employees are performing the battery charging in an area that is designated for that purpose.
- Keep the vent caps in place to avoid electrolyte spray.
- Maintain the vent caps in functioning condition.

Employee Training

The OSHA rules require the following training for employees:

- Only employees qualified by training or experience can operated equipment and machinery (1926.20(b)(4)).
- Employees must be trained to recognize and avoid unsafe conditions and the regulations applicable to their work environment to control or eliminate the hazards (1926.21(b)(2)).

Training Tips

Demonstrate the correct battery charging procedures. You may also want to demonstrate how to use a hydrometer to measure the strength of the battery acid.

Where To Go For More Information

29 CFR 1910.178(g)–Changing and charging storage batteries.

29 CFR 1926.441–Batteries and battery charging.

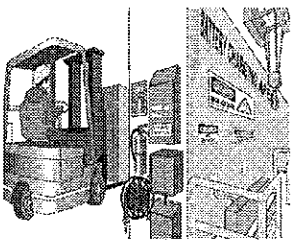
KELLER'S CONSTRUCTION TOOLBOX TALKS

Forklifts–Battery Charging

Do you pour acid into water, or is it water into acid? According to OSHA's forklift regulation, when charging a battery, acid must be poured into water, never water into acid. The regulation doesn't go into detail as to defining exactly what charging means.

What is electrolyte?

Electrolyte is a substance that conducts electricity when it is dissolved in water. Pure water by itself will not carry an electric current, but by adding sulfuric acid to the water, an electrolyte solution is created that allows the electric current to pass. Concentrated sulfuric acid is mixed with distilled water to make the electrolyte solution that surrounds the electrodes in battery cells. This process is necessary for the battery to produce energy to drive the engine.



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Transferring acid

It's a good idea to use a siphon or tilter when transferring acid from a large container because it's much easier to control, making less chance for spilling or splashing. Also, during this procedure, it's essential to wear protective equipment such as gloves, long sleeves, and goggles because splashed acid will eat holes in skin and clothing.

Low electrolyte levels

When the electrolyte level is low:

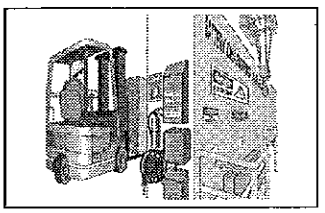
- Clean off the top of the battery.
- Remove the battery's filter caps and add distilled water to the cells.
- Tighten the caps securely after the cells are filled.

If the fluid level in the cells is low, add distilled water before charging. Never add water immediately after a charge.

Charging the battery

- Perform the battery charging in an area that is designated for that purpose.
- Keep the vent caps in place to avoid electrolyte spray.
- Maintain the vent caps in functioning condition.

The job of checking and charging batteries that contain sulfuric acid is a serious task. If you have any questions, make sure you talk to your supervisor.



Forklifts—Battery Charging Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Forklifts—Battery Charging. The session covered:

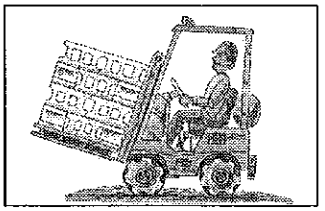
- What is electrolyte?
- What are the hazards?
- Transferring acid from a large container.
- Procedures for charging batteries.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	Print Name Here

_____
Supervisor's Signature



Forklifts—Handling Loads

Overview Of Topic

One of the most common sights on a jobsite is the forklift. Whether it is a tow motor, a man lift, or a motorized cart, it is often considered the most versatile material handling equipment available. These forklifts can be powered by propane gas, electric power, or diesel fuel.

Operating a forklift can be dangerous to both the operator and other employees working nearby. Each prospective operator must be trained on the type of forklift vehicle that they will be operating. Even though forklifts are specifically regulated under the OSHA 1910 standard, these requirements can also be followed when operating a forklift on a jobsite.

General operating requirements

- When traveling behind another forklift, maintain a safe distance of about three truck lengths from the truck ahead.
- Slow down and sound the horn at cross aisles and other locations where vision is obstructed.
- Look in the direction of travel and keep a clear view of the path of travel.
- Operate the forklift at a speed that will permit it to be brought to a stop in a safe manner.
- Slow down for wet and slippery floors.
- Make sure dockboard or bridgeplates are properly secured; drive over them carefully and slowly and make sure their rated capacity is never exceeded.
- When not handling a load, operate forklifts equipped with attachments as partially loaded trucks.

Moving a load

- If the load being carried obstructs the forward view, the driver must travel with the load trailing.

- Ascend and descend grades slowly. When ascending or descending grades in excess of 10 percent, drive the loaded forklift with the load upgrade.
- On all grades the load and load engaging means must be tilted back and raised only as far as necessary to clear the road surface.
- Only stable or safely arranged loads shall be handled. Use caution when handling off-center loads which cannot be centered.
- Only handle loads that are within the rated capacity of the truck.
- Adjust long or high (including multiple-tiered) loads which could affect capacity.
- Place the load engaging means under the load as far as possible and tilt the mast backward to stabilize the load.
- Use extreme caution when tilting the load forward or backward, particularly when high tiering.
- An elevated load must not be tilted forward except when the load is in a deposit position over a rack or stack.
- Do not attempt to move loads with broken pallets.

Employee Training

There are specific training requirements for forklift operators found in 29 CFR 1910.178(l). In addition to the OSHA requirements, your company may have additional training procedures that you will want to discuss.

Training Tips

Demonstrate how to properly position the forklift to pick-up a load. Talk about the forklift hazards specific to your jobsite. Ask employees to describe forklift operator behavior that they felt was dangerous.

Where To Go For More Information

29 CFR 1910.178(l)—Powered industrial trucks, Operator training.

29 CFR 1910.178(n)—Traveling.

29 CFR 1910.178(o)—Loading.

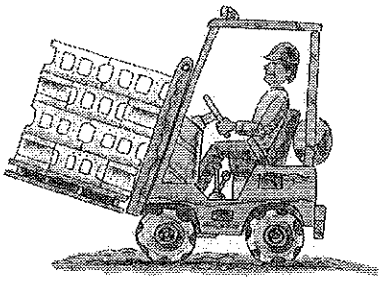
KELLER'S CONSTRUCTION TOOLBOX TALKS

Forklifts—Handling Loads

One of the most common sights on a jobsite is the forklift. Whether it is a tow motor, a man lift, or a motorized cart, it is considered one of the most versatile pieces of material handling equipment available. These forklifts can be powered by propane gas, electric power, or diesel fuel.

General operating requirements

- When traveling behind another forklift, maintain a safe distance of about three truck lengths from the truck ahead.

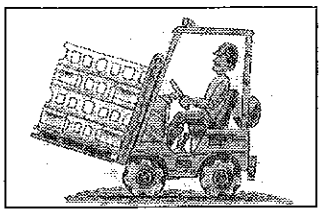


- Slow down and sound the horn at cross aisles and other locations where vision is obstructed.
- Look in the direction of travel and keep a clear view of the path of travel.
- Operate the forklift at a speed that will permit it to be brought to a stop in a safe manner.
- Slow down for wet and slippery floors.
- Make sure dockboard or bridgeplates are properly secured; drive over them carefully and slowly and make sure their rated capacity is never exceeded.
- Operate forklifts equipped with attachments as partially loaded trucks when not handling a load.

Moving a load

- If the load being carried obstructs forward view, you must travel with the load trailing.
- Ascend and descend grades slowly. When ascending or descending grades in excess of 10 percent, drive the loaded forklift with the load upgrade.
- On all grades the load and load engaging means must be tilted back and raised only as far as necessary to clear the road surface.
- Only stable or safely arranged loads should be handled.
- Use caution when handling off-center loads which cannot be centered.
- Only handle loads that are within the rated capacity of the truck.
- Adjust long or high (including multiple-tiered) loads which could affect capacity.
- Place the load engaging means under the load as far as possible and tilt the mast backward to stabilize the load.
- Take extreme when tilting the load forward or backward, particularly when high tiering.

Remember, forklift operators need to be trained before they can use the forklift.



Forklifts—Handling Loads Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Forklifts—Handling Loads. The session covered:

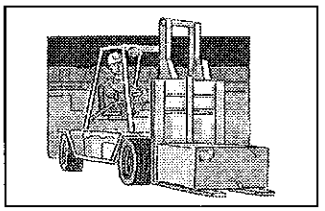
- Forklift hazards
- General operating requirements.
- Moving loads.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	Print Name Here

_____
Supervisor's Signature



Forklifts—Inspection

Overview Of Topic

Like any piece of construction equipment, forklifts need to be inspected and maintained. Although a regular maintenance schedule should be set up for lift trucks, your employees should always run down a safety checklist at the start of their shift.

This examination must be made at least daily. If forklifts are used on a round-the-clock basis, they need to be examined before the next shift. This inspection includes checking fluid levels, hydraulics, wheels and tires, brakes, and any other potential mechanical problems.

Brakes

Brakes are the single most common cause of lift truck accidents due to mechanical failure. To check the brakes:

- Push the brake pedal in. It should have free travel before meeting resistance.
- Then, depress the pedal again and hold it for ten seconds. The pedal must hold solid and not be spongy or drift under pressure.

Steering

Steering is a vital maintenance concern. With the engine running, check if the steering wheel turns correctly both ways to its stops. The wheel should not feel loose and the pump should not squeal before reaching the stops.

Sample checklist

Have your employees use the following checklist to help determine if the forklift is safe to operate (the employees should run through the checklist before operating the vehicle):

- Check the fork pins and stops to make sure that they are in place.
- Check all cowling and body parts.
- Check the wheels and tires for excessive wear.

- Look for any broken or loose parts.
- Check the fuel level, crankcase oil level, and radiator water level.
- Check the engine air cleaner, the fan belt, the hydraulic fluid level, and the battery water level.
- Check the hour meter and record it. This is important for maintenance scheduling.
- With the engine running, check operation of the hour meter, headlights, taillights, and warning lights.
- Check the oil pressure gauge, the water temperature, ammeter, and sound the horn.
- Note if the clutch is working properly, check incapability, the hydraulic controls, and any other controls on the lift system.

These checks are not excessive. For safety's sake and for your employees' own well being, the knowledge that the forklift is safe to operate is paramount. Employees must report anything not up to par to their supervisor at once. Any forklift not in safe operating condition must be removed from service and all repairs must be made by authorized personnel.

Employee Training

If forklift operators are required to perform their own forklift inspection, then they must be trained to do the inspections.

Training Tips

If your company has a forklift inspection checklist bring in copies to pass around to the trainees. Go over the checklist and answer any questions that come up. Ask the trainees if there is anything else that should go on the checklist. If you don't have a sample checklist have the trainees come up with one.

Where To Go For More Information

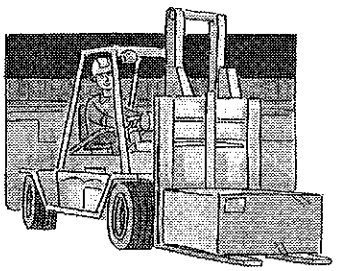
29 CFR 1910.178(l)(3)(i)—Powered Industrial trucks, Truck related topics.

KELLER'S CONSTRUCTION TOOLBOX TALKS

Forklifts—Inspection

Like any piece of construction equipment, forklifts need to be inspected and maintained. Although a regular maintenance schedule should be set up for lift trucks, you should always run down a safety checklist at the start of your shift.

This inspection includes checking fluid levels, hydraulics, wheels and tires, brakes and any potential mechanical problems with the vehicle. Make this examination at least daily.



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- Push the brake pedal in. It should have free travel before meeting resistance.
- Then, depress the pedal again and hold it for ten seconds. The pedal must hold solid and not be spongy or drift under pressure.

Steering

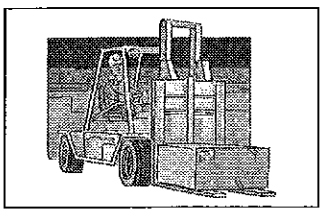
Steering is a vital maintenance concern. With the engine running, check if the steering wheel turns correctly both ways to its stops. The wheel should not feel loose and the pump should not squeal before reaching the stops.

Sample checklist

The following checklist should be strictly adhered to before operating the vehicle:

- Check the fork pins and stops to make sure that they are in place.
- Check all cowling and body parts.
- Check the wheels and tires for excessive wear.
- Look for any broken or loose parts.
- Check the fuel level, crankcase oil level, and radiator water level.
- Check the engine air cleaner, the fan belt, the hydraulic fluid level, and the battery water level.
- Check the hour meter and record it. This is important for maintenance scheduling.
- With the engine running, check operation of the hour meter, headlights, taillights, and warning lights.
- Check the oil pressure gauge, the water temperature, ammeter, and sound the horn.
- Note if the clutch is working properly, check incapability, the hydraulic controls, and any other controls on the lift system.

Report anything not up to par to your supervisor at once.



Forklifts—Inspection Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Forklifts—Inspection. The session covered:

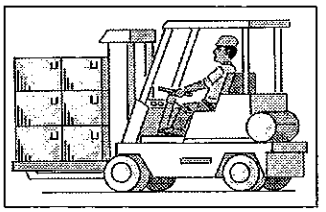
- When to inspection the forklift.
- Brake inspection.
- Steering inspection.
- Sample inspection checklist.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	Print Name Here

_____
Supervisor's Signature



Forklifts—Loading & Unloading Trucks and Trailers

Overview Of Topic

One of the most dangerous operations involving lift trucks is the loading or unloading of trucks, trailers, and railroad cars. The reason for the danger is the change of environment from the stable, concrete floor of a warehouse to the unstable realm of a truck or trailer. Not only may the vehicle being entered be unstable, but the means of going from the warehouse to the vehicle (by way of a dockplate) can also be hazardous.

Set the brakes

The first rule is to be sure that the brakes are set on the vehicle to be unloaded. This could range from air brakes or spring-loaded brakes on larger semi-trailers to hand brakes on other vehicles. Generally the driver of the over-the-road truck will be the person that sets the brakes, but it is the forklift operator's responsibility to check that the safety rules have been carried out.

Secure the vehicle to the dock

Secondly, it's a good idea to secure the vehicle to the loading dock by using wheel chocks or a mechanical dock locking system. By using wheel chocks or a dock-lock system, the trailer or truck is prevented from moving forward whenever the operator drives the forklift into the trailer and slams on its brakes to pick up or deposit a load. This rocking motion caused by the lift truck's braking action can cause semi-trailers and other trucks to creep forward, even if the vehicle brakes are set.

Install the dockboard or plate

After the vehicle restraint system is in place, the next item to install and check is the dockboard. This metal plate makes a ramp between the warehouse floor and the trailer floor. After installation of the dockboard, the operator should walk on it to make sure that it overlaps the trailer sufficiently and that the trailer is square with the unloading area so that the dockboard fits uniformly on the trailer.

Check the condition of the trailer floor

Once the dockplate is secure, the forklift operator should check the condition of the bed of the vehicle to be driven onto. If the bed of the trailer has weak, rotten, or otherwise unsafe areas on it, do not drive on it! Many accidents, including injuries and fatalities, have occurred because the forklift operator did not check the floor condition prior to driving onto it.

A lightweight pallet jack may have to be used to load or unload trailers if floor conditions warrant that the heavier lift truck stay out of the trailer.

Determine if the semi-trailer is still attached

If the tractor has been removed and the trailer is to be loaded or unloaded, place supports or jackstands under the nose of the trailer to prevent it from upending. Upending can occur if a heavy load is being placed in the nose of the trailer that has the tractor removed.

Check the lighting

Check to be sure that there is adequate lighting before driving into a semi-trailer or other vehicle. If the light is poor, turn on and position the loading dock lights. If the lift truck has lights, turn them on also.

Employee Training

29 CFR 1926.602(d) requires you to train forklift operators.

Training Tips

Cover any company specific forklift operator training issues. Talk about the types of loads operators will be handling. Discuss any forklift accidents related to loading and unloading trucks or trailers your company has experienced. Ask your operators about any close calls they have had related to this subject.

Where To Go For More Information

29 CFR 1926.602(d)—Powered industrial truck operator training.

29 CFR 1910.178(l)—Powered industrial trucks operator training.

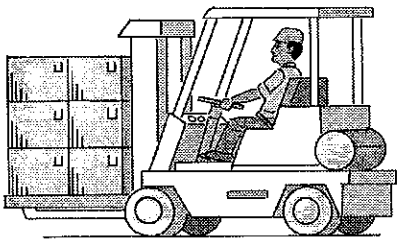
KELLER'S CONSTRUCTION TOOLBOX TALKS

Forklifts—Loading & Unloading Trucks and Trailers

One of the most dangerous operations involving lift trucks is the loading or unloading of trucks, trailers, and railroad cars. The reason for the danger is the change of environment from the stable, concrete floor of a warehouse to the unstable realm of a truck or trailer. Not only may the vehicle being entered be unstable, but the means of going from the warehouse to the vehicle (by way of a dockplate) can also be hazardous.

Before unloading a truck or trailer ...

- **Set the brakes**
  The first rule is to be sure that the brakes are set on the vehicle to be unloaded. This could range from air brakes or spring-loaded brakes on larger semi-trailers to hand brakes on other vehicles.



- **Secure the vehicle to the dock**
  Secondly, it's a good idea to secure the vehicle to the loading dock by the use of wheel chocks or a mechanical dock locking system. By using wheel chocks or a dock-lock system, the trailer or truck is prevented from moving forward whenever you drive the forklift into the trailer and put on its brakes to pick up or deposit a load.

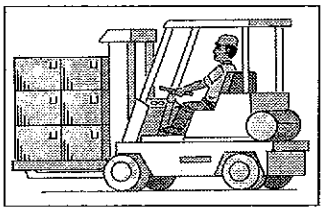
- **Install the dockboard or plate**
  After the vehicle restraint system is in place, the next item to install and check is the dockboard. After installation of the dockboard, you should walk out on it to make that it overlaps the trailer sufficiently and that the trailer is square with the unloading area so that the dockboard fits uniformly on the trailer.

- **Check the condition of the trailer floor**
  Once the dockplate is secure, the forklift operator should check the condition of the bed of the vehicle to be driven onto. If the bed of the trailer has weak, rotten, or otherwise unsafe areas on it, do not drive on it! Use a lightweight pallet jack to load or unload trailers if floor conditions warrant that the heavier lift truck stay out of the trailer.

- **Determine if the semi-trailer is still attached**
  If the tractor has been removed and the trailer is to be loaded or unloaded, place supports or jackstands under the nose of the trailer to prevent it from upending. Upending can occur if a heavy load is being placed in the nose of the trailer that has the tractor removed.

- **Check the lighting**
  Check to be sure that there is adequate lighting before driving into a semi-trailer or other vehicle. If the light is poor, turn on and position the loading dock lights. If the lift truck has lights, turn them on also.

Talk to your supervisor if you have any questions about your company policy on how to safely load and unload trucks and trailers.



Forklifts—Loading & Unloading Trucks and Trailers Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Forklifts—Loading and Unloading Trucks and Trailers. The session covered:

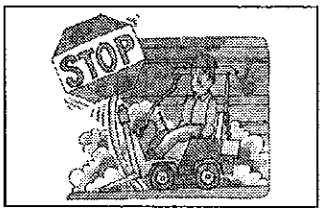
- Why loading and unloading trucks and trailers is dangerous.
- The steps to follow to minimize these dangers.
- The correct use of a dockplate.
- Why it is important to check the condition of the trailer floor.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	Print Name Here

_____
Supervisor's Signature



Forklifts—Maintenance

Overview Of Topic

Forklifts, like any piece of construction equipment, need to be inspected and maintained. A regular maintenance schedule should be set up for forklift trucks.

Even though forklifts are regulated under the OSHA 1910 standard, these requirements can also be applied to construction jobsites.

The most important maintenance rule is that your employees must remove from service any power-operated industrial truck that is not safe to operate. Repairs must be made by authorized personnel only.

Other forklift maintenance requirements are:

- Do not make any repairs in Class I, II, and III locations.
- Conduct repairs to the fuel and ignition systems of industrial trucks (which involve fire hazards) only in locations designated for such repairs.
- Disconnect the battery before repairing the electrical system.
- Replace parts removed from the forklift with parts that are as safe as the original.
- Do not alter the forklift so that the relative positions of the various parts are different from what they were when originally received from the manufacturer.
- Do not alter the forklift by adding extra parts not provided by the manufacturer or by eliminating any parts. (Additional counterweighting of fork trucks must not be done unless approved by the truck manufacturer.)
- Fill water mufflers daily or as frequently as is necessary to prevent depletion of the supply of water below 75% of the filled capacity.
- Do not operate forklifts that have mufflers with clogged screens.

- Remove from service any forklift that emits hazardous sparks or flames from the exhaust system. Find and eliminate the cause before returning the forklift to service.
- Remove from service any forklift that has overheated. Find and eliminate the cause before returning the forklift to service.
- Keep forklifts clean and free of lint, excess oil, and grease. Use noncombustible agents for cleaning trucks. Low flash point (below 100 degree F.) solvents must not be used. High flash point (at or above 100 degree F.) solvents may be used. Precautions regarding toxicity, ventilation, and fire hazard must be consistent with the agent or solvent used.
- Industrial trucks originally approved for the use of gasoline for fuel may be converted to liquefied petroleum gas fuel provided the complete conversion results in a truck which embodies the features specified for LP or LPS designated trucks.

Employee Training

While there are no specific training requirements for forklift maintenance, employees repairing forklifts must be trained in the proper use of the equipment they use to make the repairs.

Training Tips

Have a forklift available to demonstrate some of these maintenance requirements.

Where To Go For More Information

29 CFR 1910.178(q)–Powered industrial trucks, Maintenance of industrial trucks.

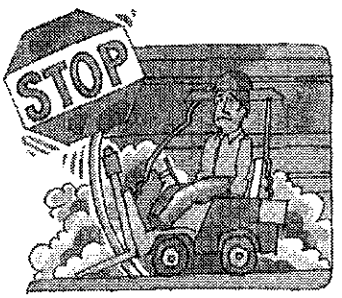
KELLER'S CONSTRUCTION TOOLBOX TALKS

Forklifts—Maintenance

Forklifts, like any piece of construction equipment, need to be inspected and maintained. Your company should set up a regular maintenance schedule for your forklift trucks. As a forklift operator or maintenance technician you must remove from service any power-operated industrial truck that is not safe to operate. Repairs must be made by authorized personnel only.

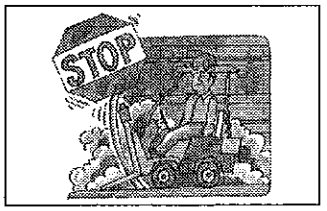
Some of the other forklift maintenance requirements are:

- Do not make any repairs in Class I, II, and III locations.



- Conduct repairs to the fuel and ignition systems of industrial trucks (which involve fire hazards) only in locations designated for such repairs.
- Disconnect the battery before repairing the electrical system.
- Replace parts removed from the forklift with parts that are as safe as the original.
- Do not alter the forklift so that the relative positions of the various parts are different from what they were when originally received from the manufacturer.
- Do not alter the forklift by adding extra parts not provided by the manufacturer or by eliminating any parts. (Additional counterweighting of fork trucks must not be done unless approved by the truck manufacturer.)
- Fill water mufflers daily or as frequently as is necessary to prevent depletion of the supply of water below 75% of the filled capacity.
- Do not operate forklifts that have mufflers with clogged screens.
- Remove from service any forklift that emits hazardous sparks or flames from the exhaust system. Find and eliminate the cause before returning the forklift to service.
- Remove from service any forklift that has overheated. Find and eliminate the cause before returning the forklift to service.
- Keep forklifts clean and free of lint, excess oil, and grease. Use noncombustible agents for cleaning trucks. Low flash point (below 100 degree F.) solvents must not be used. High flash point (at or above 100 degree F.) solvents may be used. Precautions regarding toxicity, ventilation, and fire hazard must be consistent with the agent or solvent used.
- Industrial trucks originally approved for the use of gasoline for fuel may be converted to liquefied petroleum gas fuel provided the complete conversion results in a truck which embodies the features specified for LP or LPS designated trucks.

Remember, repairs must be made by authorized personnel only. An authorized person is someone approved or assigned by the employer to perform a specific type of duty or duties or to be at a specific location or locations at the jobsite.



Forklifts—Maintenance Sign-Off Sheet

This sign-off sheet documents the employees at this company, _____, who have taken part in a training session on Forklifts—Maintenance. The session covered:

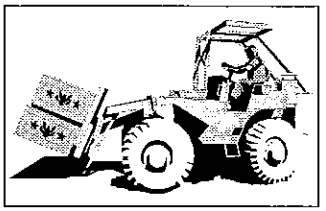
- Reasons for a regular maintenance schedule
- When to remove a forklift from service.
- Maintenance checklist.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	Print Name Here

Supervisor's Signature



Forklifts—Training

Overview of Topic

OSHA uses the term *powered industrial truck* to describe a mobile, power-driven vehicle used to carry, push, pull, lift, stack, or tier material. Included in this description would be: high lift, counterbalanced, cantilever, rider, forklift, high lift platform, and motorized hand/rider trucks. The standard does not include any type of earth moving or over-the-road haulage equipment.

Where are the regulations?

The OSHA forklift training standard is at 29 CFR 1926.602(d). However, at .602(d) the rule points you to the general industry regulations at 29 CFR 1910.178(l)–Powered industrial truck operator training. OSHA does this for two reasons: (1) the training is similar, and (2) it saves printing costs by not duplicating like regulations. Yes, you must obtain a copy of the general industry, 1910 OSHA regulations to comply with this standard.

Regulation requirements

The new regulation is broken down into eight sections. They are:

(1) Safe operation—You must ensure that each operator: (1) is competent to safely operate the particular powered industrial truck he/she will use, and (2) has successfully completed the training required by the new rule.

(2) Training program implementation—Your trainer must have the knowledge, training, and experience to train forklift operators, and evaluate their competence.

Trainees can operate a forklift only: (a) under the direct supervision of a knowledgeable trainer/evaluator, and (b) when it does not endanger the trainee or others.

Training must consist of formal instruction (lecture, discussion, videos), practical training (demonstrations and practical exercises), and jobsite performance evaluations.

(3) Training program content—Operators must initially train in all topics listed in §1910.178(l)(3), unless employers can demonstrate that a topic is not applicable to the safe operation of the truck at the employee's specific worksite.

Topics are broken down into three broad categories: (1) truck-related, (2) worksite related, and (3) the forklift rule requirements.

(4) Refresher training and evaluation—Refresher training and evaluation must be done to ensure operators have the knowledge and skills needed to operate the forklift safely. Refresher training is required when: (1) unsafe operation is observed, (2) an accident or near-miss has occurred, (3) an evaluation reveals unsafe operation, (4) the operator will operate a different truck, and (5) workplace conditions change that could affect safe operation.

An evaluation of each forklift operator must be conducted at least once every three years.

(5) Avoidance of duplicative training—If an operator has previously trained in a required topic, the training is appropriate to the forklift and working conditions encountered, and the operator has been evaluated and found competent to operate the truck safely, that training does not have to be duplicated.

(6) Certification—Employers must certify that a forklift operator has been trained and evaluated as required by the regulation.

(7) Dates—See the first paragraph of this Toolbox Talk for the dates employers must ensure forklift operators are trained by.

(8) Appendix A—Provides guidance to assist employers in implementing the new rule.

Employee Training

This Toolbox Talk is for informational purposes. The forklift training requirements are outlined in the standard.

OSHA state-plan-states: Remember that certain states have more stringent regulations that go above and beyond the OSHA standards.

Training Tips

This Toolbox Talk can be used as an overview of the training your forklift operators must receive.

Where To Go For More Information

29 CFR 1910.178(l)–Powered industrial trucks, Operator training.

KELLER'S CONSTRUCTION TOOLBOX TALKS

Forklifts—Training

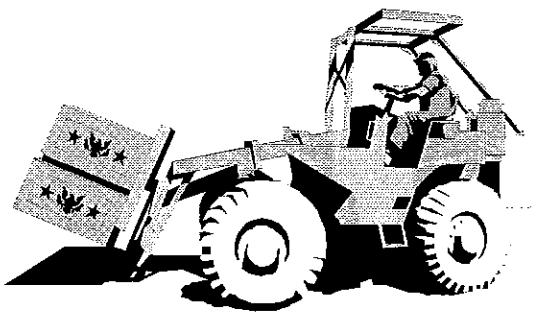
All workers hired to operate a forklift must be trained—according to the operator training requirements in 29 CFR 1910.178(l)—BEFORE being allowed to use a forklift.

OSHA uses the term *powered industrial truck* to describe a mobile, power-driven vehicle used to carry, push, pull, lift, stack, or tier material. Included in this description would be: high lift, counterbalanced, cantilever, rider, forklift, high lift platform, and motorized hand/rider trucks.

The following information highlights the requirements of the forklift training rule:

The OSHA forklift training standard is in the OSHA general industry regulations at 29 CFR 1910.178(l)–Powered industrial truck operator training.

If you are a forklift operator you must: (1) be competent to safely operate the particular forklift you will use, and (2) successfully complete the training required by the standard.



Your trainer must have the knowledge, training, and experience to train you and evaluate your competence. Trainees can only operate a forklift: (a) under the direct supervision of a knowledgeable trainer/evaluator, and (b) when it does not endanger you or others.

You must initially train in all topics listed in the regulations unless you and your employer can demonstrate that a topic is not applicable to safe forklift operations at your jobsite.

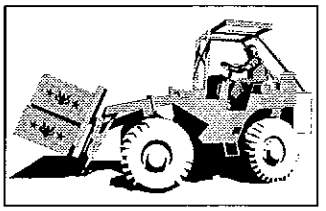
Topics are broken down into three broad categories: (1) truck-related, (2) worksite related, and (3) the forklift rule requirements.

Refresher training and evaluation must be done to ensure you have the knowledge and skills needed to operate the forklift safely. Refresher training is required when: (1) unsafe operation is observed, (2) an accident or near-miss has occurred, (3) an evaluation reveals unsafe operation, (4) you will operate a different truck, and (5) workplace conditions change that could affect safe operation.

An evaluation of each forklift operator must be conducted at least once every three years.

If you have previously trained in a required topic, the training is appropriate to the forklift and working conditions encountered, and you have been evaluated and found competent to operate the truck safely, that training does not have to be duplicated.

Your employer must certify that you have been trained and evaluated as required by the standard.



Forklifts—Training Sign-Off Sheet

This sign-off sheet documents the names of employees who attended this training session on Forklift—Training at _____.
(company name)

The session covered:

- Where the new regulation is found in the OSHA rules.
- Who must take forklift training and when it has to be completed.
- Curriculum requirements of the new forklift rule.
- Appendix A–Stability of Powered Industrial Trucks (Non-mandatory Appendix) to help instructors explain forklift stability.

The space below is for employees to "sign-off" that they were in attendance.

Date of Training: _____ **Job Location:** _____

Employee Signature	**Print Name Here**

_____
Supervisor's Signature