Operating Information

How a Forklift Works

Please be sure to read the **Safety** information that accompanies this product. Additional forklift safety information also is available at the following links:

Types of Forklifts
Select a Safe Forklift
Explosion/Combustion Hazards
Safety Information

Driving a forklift is different than driving a car

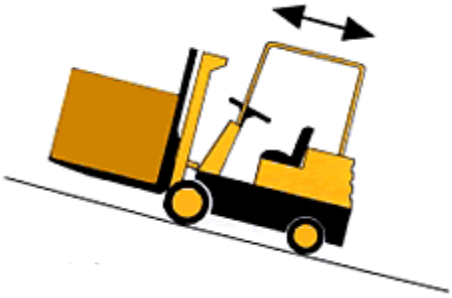
In a car or truck the front wheels steer the vehicle. A forklift has the steering wheels in the rear. The rear end of the forklift swings in a circle around the front wheels that support most of the load. The operator must check that there is room for the rear end to swing when making turns.

This clearance can be maintained in your workplace by permanently marking aisles with painted lines or arranging storage racks in a way that creates obvious aisles for travel.

However, these marked aisles will only be effective if you keep them clear of stored materials, which can gradually encroach as space is needed.

A forklift is not as responsive as a car when turning the steering wheel. Rear steering makes it difficult to stop a forklift quickly or swerve and still maintain control. It is important, then not to drive a forklift fast or round corners quickly.

Driving with the load downhill can result in loss of the load and control of the forklift.



Keep the load uphill to maintain control of the forklift.

If you drive a forklift on an incline, you must keep the load on the uphill side. Otherwise, you may have no weight on the wheels that steer and can lose control! The load could also fall off or cause the forklift to tip.

Often a large forklift load obstructs the driver's view in one direction. It may be necessary to travel long distances with the load to the rear (in reverse for most forklifts). Use extra caution when traveling in reverse.

Forklift safety features

A backrest extension on the forks prevents part of the load from falling rearward toward the operator. This is required when loads are lifted

high and the type of load would allow all or part of it to fall to the rear under conditions such as acceleration, sudden stops or driving on an uneven surface.

An overhead guard prevents an object on the forks or on a high rack from falling onto the operator while picking or placing a load at elevation. The guard is not designed to withstand the impact from a full load. It can be effective in deflecting small packages. It is required on all forklifts that can lift a load above the operator unless conditions such as clearances would not allow the forklift to be used.

Operator restraints will hold you in the seat if you strike an object or if the forklift overturns. Since 1992, forklift manufacturers have been required to equip new forklifts with operator restraints such as seat belts. Many forklift manufacturers offer restraint systems that can be retrofitted on older forklifts.

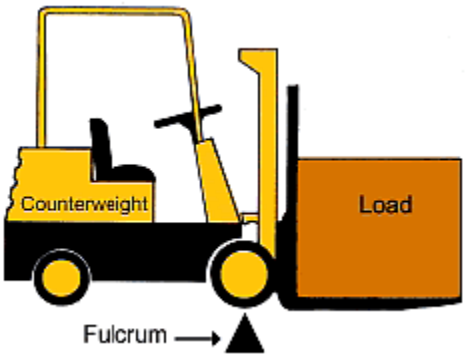
If your forklift begins to overturn, you are safest when you stay in the seat, hold on firmly, and lean in the opposite direction of the fall rather than trying to jump. Many fatal accidents happened when the operator tried to jump. As the forklift begins to tip, it will move slowly – tricking the operator into believing there is time to jump. Once the center of gravity is past the wheel line, the forklift will rapidly fall. The forklift's overhead guard will quickly pin or crush an operator who jumps.

Failure to wear a seat belt can result in the operator being thrown outside the protective cage in the event of overturn.

If your forklift has a restraint such as a seat belt or a lap bar, you must use it.

How forklifts safely carry and lift heavy loads

A forklift works on the principle of a cantilever. A load on a beam (the forks) supported by a fulcrum (the front wheels) is counterbalanced by a weight on the other end of the beam (the forklift body and counterweight built into it).



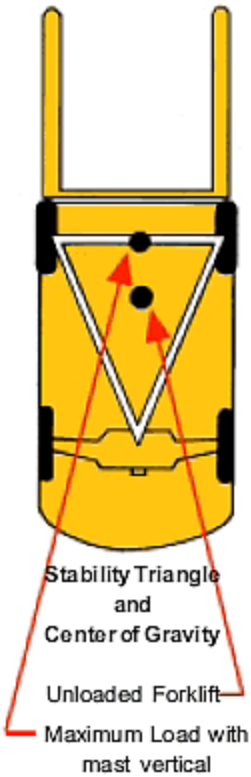
Whether a forklift will safely carry a load or will tip forward can be determined by comparing the "moment" of each.

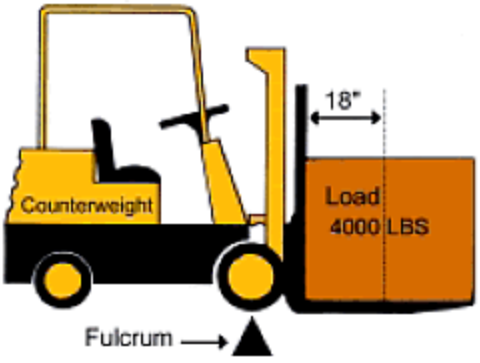
Moment equals the distance from the fulcrum to the center of gravity (the point where all the weight is concentrated) times the weight.

Example: an evenly distributed 36" wide load on the forks has a center of gravity that is 18" from the face of the forks. **(Note: The fulcrum point is actually at the center of the wheel. Forklift load charts, however, are adjusted to allow measuring from the face of the forks.)** If the load weighs 4000 pounds then the load moment will be (18" x 4000 lb.) = 72,000 inch-pounds.

If the "moment" of the forklift is greater than or equal to the 72,000 inch pounds of the load then the forklift will safely carry the load. Forklifts have a capacity plate to tell the user what loads are safe to lift. If the plate says the capacity is 30,000 pounds or less then that capacity is rated for a load with a center of gravity 24" from the face of the forks. If the forklift capacity is greater than 30,000 pounds then the label will rate the load at a 36" or 48" center of gravity since larger forklifts usually lift physically larger loads.

For example, a forklift rated at 5000 pounds would safely lift a load with a moment of up to (24" X 5000 lb.) = 120,000 inch-pounds. In this case the load above would be safe to lift.





Forklift Moment = (24" x 5000 lbs.) = 120,000 inch-pounds.

The load is safe to lift because load moment is less than forklift moment.

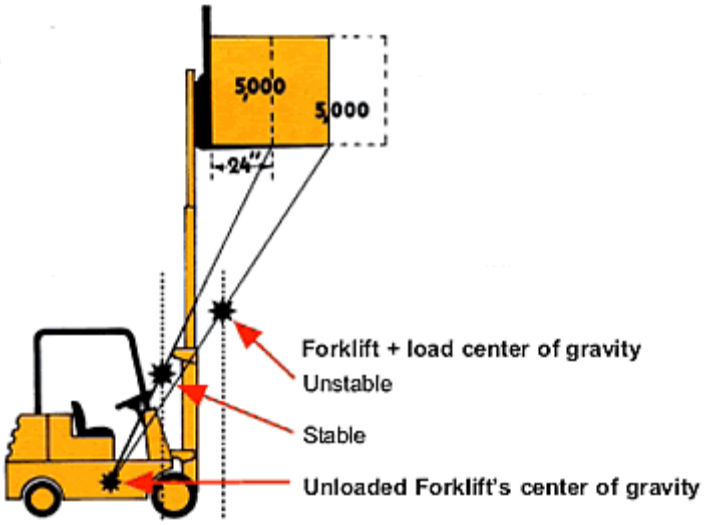
However if the 4000 pound load was 66" wide, the load moment would be (33" X 4000 lb.) = 132,000 inch-pounds which would be greater than the moment of the forklift. The forklift would tip forward.

As the load is raised, it becomes possible for the forklift to fall to the side as well as tip forward. The operator must consider the center of gravity of the forklift and load together. This combined center of gravity moves as

the load is moved and as the forklift travels over surfaces that are rough or inclined.

Forklifts have a "stability triangle". The sides of the triangle as shown in the illustration are formed by the center of each front wheel and the center of the rear wheel or at the center of the axle if there are two rear wheels.

A vertical line extending from the center of gravity of the vehicle-load combination must be inside of the stability triangle to prevent the forklift from tipping forward, falling sideways or dropping its load.



The center of gravity of the forklift-load combination can move outside the stability triangle if:

- The load is picked up on the tip of the forks,
- The load is tilted forward,
- The load is tilted too far back when raised,
- The load is wide, or
- Forklift movement causes the center of gravity to shift.

These actions will have the following effects:

Action	Center of gravity moves:
Tilting the load forward	Toward the front axle
Raising the load while tilted forward	
Driving on an incline with the load downhill	
Stopping forward travel or accelerating backward	
Tilting the load back	Toward the rear axle
Raising the the load while tilted back	
Driving on an incline with the load uphill	
Accelerating forward or stopping backward travel	
Driving across an inclined surface	Toward the downhill side of the triangle
Driving across a rough or uneven surface	Toward the rut or low side of the triangle
Turning	Toward the side now facing the original direction of travel

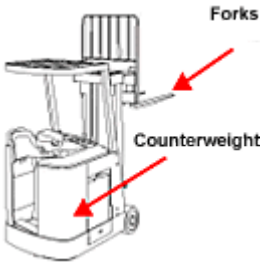
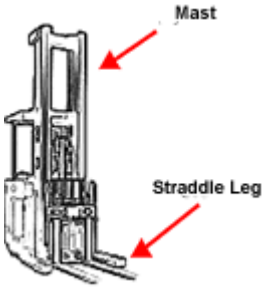
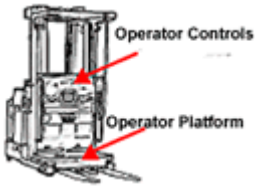
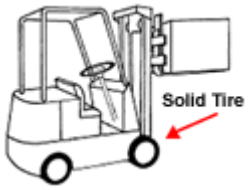
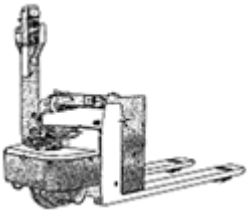
This list represents operator procedures that reduce the risk of overturn, collision or

loss of the load.

To prevent your forklift from tipping over, falling sideways or dropping its load:

- Make sure the load is stable and safely arranged on the forks.
- Do not tilt the forks forward except when picking up or depositing a load.
- Tilt the load backward only enough to stabilize the load.
- Keep the load low just above the pavement with forks tilted back when traveling.
- Cross railroad tracks diagonally when possible.
- Enter elevators squarely.
- Keep the load uphill when going up or down an incline.
- Drive at a speed that will allow you to stop safely within the stability triangle.
- Slow down on wet or slippery surfaces.
- Slow down to make turns.
- Avoid driving over loose objects or on surfaces with ruts and holes.

Types of Forklifts

Type, Description & Class				
				
	Stand Up Rider - Forklift has a counterbalance weight in the body. The rider stands inside the body of the forklift. **Class 1** **Electric Rider** **Counterbalanced Truck**	**Stand Up Rider - Narrow Aisle-** The forklift has straddle legs on both sides of the forks to provide stability in the absence of a counterweight in the body. **Class 2** **Electric Narrow Aisle Truck**	**Stand Up Reach Rider - Narrow Aisle-** Forks extend in and out as well as up, down, and tilt. **Class 2** **Electric Narrow Aisle Truck**	**Stand Up Rider - Order Picker -** The operator stands on a platform in front and along with the controls is transported to the elevated location. **Class 2** **Electric Narrow Aisle Truck**
				
	Sit Down Rider - The forklift has a counterbalance in the rear. **Class 1 Truck***	**Motorized Hand Pallet Jack -** A low lift (ground level) unit has forks or a platform. Some models allow the operator to	**Reach Forklift -** The forklift has large pneumatic tires. It has a boom which raises and extends. It has outriggers at the front to stabilize the forklift on soft or uneven ground.	

	Class 4 Truck** **Class 5 Truck***** ** If electric powered.* *** If internal combustion (gas, diesel or LP gas) powered with solid tires.* **** If internal combustion powered with pneumatic tires* .	stand on the back. Others, like the one shown, are walked **Class 3** **Electric Motor/Hand/Rider Truck**	A reach forklift might also resemble a sit-down rider as shown above. It is bigger with large pneumatic tires and a large mast with large forks. It is powered by an internal combustion engine. **Class 7 Reach/Rough Terrain Forklift Truck**

Attachments

A variety of forklift attachments can be installed onto a forklift to extend the reach, clamp a barrel, act as hoist, lift oddly-shaped items, lift people or other tasks.

⚠WARNING **Using an unapproved attachment could alter the forklift's lifting and balance characteristics and lead to a forklift overturning.** Whenever an attachment is used that could affect the capacity of safe operation of a forklift, its use must be approved by the forklift manufacturer. The forklift must be marked to show the new weight with the attachment. The maximum capacity at the highest elevation must also be shown.


Jib Crane Attachement


Hoist Attachment


Drum Grabber Attachment


Carpet Lift Attachment


Personnel Platform

Select a Safe Forklift

If You Work in an Area Where These Are Present:			Then Use This Type of Forklift.	
Hazard Classification			**Acceptable Forklift Designations**	
Class I Flammable gases or vapors are or may be present in quantities sufficient for explosion or ignition			**Division I** Condition exists continuously, intermittently, or periodically under normal operating conditions.	**Division II** Condition may occur accidentally e.g., puncture of a storage drum.
• Acetylene • Cyclopropane • Ethylene oxide	• Acetaldehyde • Diethyl ether • Isoprene	• Butadiene • Ethylene • Propylene oxide	Forklift use prohibited	DY, EE, EX(also DS, ES, GS, LPS) if the only exposure is sealed containers or liquefied or compressed gases in containers
• Hydrogen (or gases or vapors equivalent in hazard to hydrogen, such as manufactured gas) • Unsymmetrical dimenthyl hydrazine (UDMH).				
• Acetone • Ammonia • Butane • Hexane • Naphtha • Propylene • Vinyl chloride	• Acrylonitrile • Benzine • Natural gas • Styrene • Xylenes • Lacquer Solvent • Ethylene dichloride	• Alcohol • Bensol • Gasoline • Propane • Vinyl acetate	EX	DY, EE, EX(also DS, ES, GS, LPS) if the only exposure is sealed containers or liquefied or compressed gases in containers

Class II • Combustible dust is present			**Division I** Explosive or conductive mixture may be present under normal conditions or where equipment failure can lead to both this condition and arcing or sparking.	**Division II** Explosive mixture not normally present but where deposits of dust may cause heat rise in electrical equipment
• Aluminum, magnesium, and their commercial alloys • Other metals of similarly hazardous characteristics			Forklift use prohibited	Forklift with electrical enclosures manufacturer approved where magnesium, aluminum or aluminum bronze may be present.
• Carbon black, • Coal or coke dust			EX	Forklift manufacturer approved for this location.
• Other combustible dusts			EX	DY, EE, EX
Class III Easily ignitable fibers or flyings are present but not likely to be in suspension in quantities sufficient to ignite.			**Division I** Locations in which these materials are handled, manufactured or used.	**Division II** Locations in which these materials are stored or handled (other than manufacture)
• Baled waste • excelsior • jute • sisal • tow	• cocoa fiber • hemp • kapok • Spanish moss	• cotton • istle • oakem • synthetic fibers	DY, EE, EX	DS DY ES EE EX GS LPS (Type E may continue to be used if used previously at this location.)
Unclassified Locations Piers and wharves inside and outside general storage, general industrial or commercial properties.			D, E, G, LP (more protective designations may also be used)	

Explosion/Combustion Hazards

Type	Built-In Safeguards Against Fire Hazards
D (Diesel forklift)	**Minimum**
DS	**D + additional for fuel, exhaust and electrical systems**
DY	**DS + all electrical equipment enclosed**
E (Electrical forklift)	**Minimum**
ES	**E + prevents sparks and limits surface temperatures**
EE	**ES + all electrical motors and equipment completely enclosed**
EX	**Can be used in flammable vapro or duct atmospheres**
G (Gasoline forklift)	**Minimum**
GS	**G + additional for fuel, exhaust and electrical systems**
LP	**G + minimum safeguards for liquid petroleum gas**
LPS	**LP + additional for fuel, exhaust and electrical systems**

Safety Information

Additional forklift safety information referred to in these instructions can be found at the following links:

Types of Forklifts
Select a Safe Forklift
Explosion/Combustion Hazards

Introduction

A forklift is a powerful tool that allows one person to precisely lift and place large heavy loads with little effort. Using a tool such as a forklift, cart or hand truck instead of lifting and carrying items by hand can reduce the risk that you will suffer a back injury.

However, there is great risk of injury or death when a forklift operator:

- Has not been trained in the principles of physics that allows a forklift to lift heavy loads,
- Is not familiar with how a particular forklift operates,
- Operates the forklift carelessly, or
- Uses a forklift that is not safe due to malfunctioning or missing parts.

Every year nearly 100 workers are killed and 20,000 are seriously injured in forklift mishaps. According to the National Traumatic Occupational Fatalities (NTOF) Surveillance System, 1,530 workers died from forklift related accidents between 1980 and 2001. The top four types of incidents as a percent of the total forklift related deaths are:

⚠WARNING Whenever you see either of these two symbols in these safety and operating instructions, it means that failure to follow the instructions can result in serious injury or death.

Types of Forklifts
A forklift is a type of "powered industrial truck." Like other powered industrial trucks, its purpose is to move, carry, push, pull, and lift a material load then stack it or place it in a storage rack (tier). Forklifts come in many sizes and capacities. They can be powered by batteries, propane, gasoline or diesel fuel. Some are designed to be used in a hazardous location or atmosphere where an ordinary forklift might cause a fire or explosion.

Powered industrial trucks are classified into seven types based on their characteristics. The seven types of forklifts are:

- Class 1—Electric Motor, Rider, Counter-Balanced Trucks (solid and 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 and Internal Combustion Engine Tractors (solid and pneumatic tires). There are no forklifts in this class.
- Class 7—Rough Terrain Forklift Trucks (pneumatic tires).

For more detailed examples of forklift types, please refer to **Types of Forklifts**.

Safely Using a Forklift

 Failure to check that the forklift is operating properly can lead to an accident

Pre-use inspection
The forklift must be checked for defects daily — usually by the operator before beginning a shift. Even if you operate a forklift safely, a defect can cause or contribute to a serious accident. Some things to look for are:

- Is the horn working? Sound the horn at intersections and wherever vision is obstructed.
- Are there hydraulic leaks in the mast or elsewhere? These could cause slipping hazards or lead to hydraulic failure.
- Are fuel connections tight and battery terminals covered? Dropping a piece of metal across battery terminals can cause an explosion.
- Is there a lot of lint, grease, oil or other material on the forklift that could catch on fire?
- Do sparks or flames come out from the exhaust system?
- Does the engine show signs of overheating?
- Are tires at proper pressure and free of damage? A tire with low pressure or a tire failure can cause a forklift to tip or fall when a load is high.
- Do all controls such as lift, lower, and tilt work smoothly? Are they labeled?
- Is there any deformation or cracks in the forks, mast, overhead guard, or backrest?
- Are lights operating if used at night or in dark locations?
- Is steering responsive? A lot of play or hard steering will reduce your control.
- Do brakes stop smoothly and reliably? Sudden stops can cause tipping.
- Does the parking brake hold the forklift on an incline?
- Are seat belts (if equipped) working and accessible?
- Is the load capacity plate readable?

Any defects that would affect safety must be corrected before the forklift is returned to service. Appendix A is a sample operator pre-use inspection checklist.

Surface Condition
The surface a forklift operates on can cause serious safety problems. Loose objects, bumps, or depressions can cause you to lose control of steering, bring you to a sudden unplanned stop or cause you to drop your load. A soft dirt surface can cause a wheel to sink and destabilize an elevated load and the forklift.

Any surface a forklift drives on must be able to support the forklift and its load with a safety factor of four. If a 7,000 pound forklift is carrying a 3,000 pound load then the floor must be able to support 40,000 pounds. Remember that nearly the full weight of the load plus a part of the weight of the forklift may be centered near a single wheel. Wet, oily or icy surfaces should be avoided. Clean them up as soon as possible.

Traveling
The basic rule for traveling is that you maintain control of your forklift at all times. Other rules include:

- Operate a forklift only while in the seat or operator's station. Never start it or operate the controls while standing beside the forklift.
- Never allow passengers unless the forklift was designed for a passenger.
- Do not put any part of your body between the uprights of the mast or when traveling, outside of the forklift frame.
- Always look in the direction of travel and keep a clear view of the travel path. Travel in reverse if the load blocks your view.
- Always observe posted speed limits at your workplace. A forklift should not be driven faster than a quick walking pace.
- Keep a distance of at least three forklift lengths between you and any forklift traveling in front of you.
- Do not pass a forklift traveling in the same direction if it is at a blind spot, intersection or other dangerous location.
- Never drive a forklift up to anyone in front of a bench or other fixed object.
- Never allow anyone to walk or stand under the elevated forks – even if the forks are not carrying a load.
- Check that there is adequate clearance under beams, lights, sprinklers, and pipes for the forklift and load to pass.
- Never engage in stunt driving or horseplay.

Driving onto trucks, trailers, and railroad cars

Failure to secure the truck or trailer with blocks can cause the trailer to move resulting in the forklift falling between the trailer and the dock.

Forklifts are often driven onto trucks, trailers, or railroad cars over a dock board (also known as a bridge plate) at loading docks. If the truck, trailer or car is not secured to the dock or otherwise chocked, it can move over time.

The dock board can then fall between the trailer and the dock as the forklift crosses it.
You can secure wheel chocks with chain at each loading dock bay and tell truck drivers that they must place them in front of the rear wheels. Another way of securing the trailer is to use a vehicle restraint system mounted to the dock that clamps onto a bar below the trailer as it backs into place. This system will signal when the restraint is engaged or if there is a problem.

The pavement at some loading docks slopes downhill toward the loading dock. This is not a substitute for chocking wheels. Sometimes a trailer is left at a loading dock without the tractor attached. Use trailer jacks to prevent the trailer from up-ending when a forklift drives to the front of the trailer to load or unload.

An unsecured dock plate can move over time resulting in a sudden stop of the forklift and loss of the load as the wheels lodge in the space between the dock and the truck bed.

A portable dock board must be secured in place to prevent it from moving. Some boards have pins that are inserted into the sides and project below the board. This prevents the board from moving toward the dock or toward the trailer. To prevent crushed fingers and make for safe handling, a portable dock board must also have handholds or lugs that allow the forklift to pick it up.

Keep a safe distance from the edge of a loading dock or a ramp. The edge must be painted yellow or with alternating yellow and black diagonal stripes to warn of both the fall hazard and the potential to be crushed by a trailer backing into the dock. Some loading docks have a bull rail that prevents a wheel from slipping off the sides of ramps or edges of the dock where a forklift would not have to cross to enter a trailer.

Any part of the dock edge that is four feet or more above the adjacent surface must have a standard guardrail. Removable rails (such as chain rails) and posts can be used at the place where trucks or trailers will be loaded.

Loading and unloading the forklift
Check the load before you pick it up.

Block
The most common.The upper level may be unstable if not encircled with wire or strapping

Brick-
Containers are interlocked by turning each level 90 degrees

Pinwheel
Used where brick pattern is unstable.

Irregular Stacking Patterns
Wood strips, plywood or heavy cardboard between layers can help stabilize castings, bags, and other irregular shapes.

- Is it stable or will parts slide or fall during transit? Secure it as necessary. The illustrations below show some common pallet stacking patterns.
- Do the dimensions and weight of the load fall within the capacity rating of the forklift at the highest elevation and extension you will handle the load? If not, can you break the load into smaller parts?
  When you pick up the load:
- Move squarely into position in front of the load.
- Position the forks wide apart to keep the load balanced.
- Drive the forks fully under the load.
- Tilt the mast backward slightly to stabilize the load and lift. Check the destination before you place the load.
- Is the destination flat and stable — or, will the load rock, tilt or lean?
- Never place heavy loads on top of light loads.
- Observe maximum stacking quantities and orientation if printed on cartons.
- Do you know the load bearing capacity of your rack or storage loft destination?
- Are rack legs or support members bent or disconnected? The load bearing capacity of a damaged rack is unknown! Wait until the damaged component has been replaced before loading.

- Are racks arranged back to back with a stock behind where you will place the load? Someone may need to be in the next aisle to control access while you place the load.
- Are wooden stringers or decking laid between front and rear rack beams in good condition?
- If you are stacking, are other pallets in the stack in good condition and capable of supporting the load in addition to what they are already supporting?

When you place the load at its destination:

- Move squarely into position in front of the rack or stack where the load will be placed.
- When ready to place the load, tilt the mast to level. Only tilt forward when the load is over the spot where it will be placed.
- Lower the forks and back away.
- Visually verify that the load is stable.

Leaving a forklift unattended
A forklift is considered to be unattended when it is not in view of the operator or if it is in view, the operator is 25 feet or more away. If you leave a forklift unattended, lower the forks to the ground. Set the controls to neutral, turn off the power, and set the brakes. If the forklift is on an incline, block the wheels.

If you dismount a forklift and stay within 25 feet, you must at least lower the forks to the ground, set the controls to neutral and set the brakes.


Lifting or lowering a person on forks or a pallet can result in a fall injury or fingers caught in moving parts of the mast.

Lifting and lowering people
Never allow anyone to be lifted while standing on the forks or on a pallet lifted by the forks! If you want to use a forklift to raise an employee to an elevated position, use a platform or structure specifically built for this purpose that meets these conditions:

- The platform must have standard guardrails which include a top rail 36” to 42” above the platform (39” to 45” on a construction site), midrail and toeboard. It must also prevent contact with chains and shear points on the mast. See the illustration for an example.

Forklift work platform has standard guardrails and a screen to prevent contact with moving parts of the mast. A chain secures the platform to the mast.

- **WARNING** Never stand on the forks or a pallet to work at an elevated level.
- The platform must be securely attached to the forks such as by a clamp or chain.
- Check with the forklift manufacturer to verify that the hydraulic system will not allow the lift mechanism to drop faster than 135 feet per minute in the event of a system failure. Identify the forklift as approved for use with the platform.
- Lock or secure the tilt control to prevent the boom from tilting.

- A forklift operator must be at the normal operating position when lifting and lowering the platform. The operator must be near the forklift while a worker is elevated.
- Except to inch or maneuver at low speeds, do not move the forklift between two points when a worker is on the platform.

Fueling/charging

 These practices are designed to prevent explosion of flammable vapors due to spark or collision with unprotected fuel tanks.

When refueling or charging batteries, observe the following precautions:

- Do not smoke or allow any open flames or spark /arc generating equipment in the refueling / charging area.
- Make sure there is adequate ventilation to disburse fumes.
- Make sure there is a fire extinguisher nearby.
- Make sure there is a barrier that protects the pump or charger against vehicle damage.

Liquid Petroleum Gas (LPG) forklifts

- LPG gas is very cold. Wear gloves when changing LPG tanks. Check for leaks before operating.

Gasoline or diesel forklifts

- Turn the engine "OFF" and apply the hand brake before gasoline or diesel refueling.
- Clean up any spilled fuel before restarting the engine.
  Battery operated forklifts
- When charging batteries, keep the battery vent caps in place to prevent electrolyte spray. (Check that the vent caps are not plugged.)
- Keep the battery compartment open to dissipate heat.
- Keep tools and other metal objects away from the top of the battery to prevent an arc or explosion due to short circuited terminals.
- When adding fluid to the battery, wear safety glasses and a face shield for protection against electrolyte splash or spray.
- Battery charging areas must have a way to flush and neutralize spilled electrolyte.
- Do not attempt to remove a battery from the forklift unless you have been trained and the charging station is equipped with a hoist designed for this purpose.
- If you do any service to a battery beyond routine charging the employer must supply an eyewash that can be reached within 10 seconds and that is capable of providing .4 gallons of water per minute for 15 minutes.

Carbon monoxide hazard

 Internal combustion engines produce carbon monoxide. This gas can rapidly build up in any indoor area. People can be overcome without even realizing they are being exposed. Confusion, headache, dizziness, fatigue, and weakness may set in too quickly for victims to save themselves. Carbon monoxide poisoning can cause permanent brain damage, including changes in personality and memory. Once inhaled, carbon monoxide decreases the ability of the blood to carry oxygen to the brain and other vital organs. Even low levels of carbon monoxide can set off chest pains and heart attacks in people with coronary artery disease.

Gasoline powered forklifts should not be used indoors. Propane forklifts also produce carbon monoxide and must be regularly inspected and maintained. If you are concerned about the exposure level in an enclosed area where a forklift operates, contact a qualified industrial hygienist to make measurements and recommendations to improve ventilation.

Operating a forklift in an environment where chemicals or other substances are present can be hazardous. Use only forklifts that are acceptable for operations under those conditions.

To select the appropriate forklift, you must know the type of location (Class), the name of the chemical or substance and how likely it is that

the hazardous condition would be present (Division).

Terms

- A Class I location contains flammable gases or vapors.
- A Class II location contains combustible dust.
- A Class III location contains easily ignited fibers.
- An Unclassified location is a general storage, commercial or industrial location without the hazard conditions described above.
- A Division I location has a high potential for the hazard to be present.
- A Division II location has a lower potential for the hazard to develop.

Please refer to the **Select a Safe Forklift Table** to determine hazard classifications and acceptable forklift designations. To interpret hazard designations, please refer to the **Explosion/Combustion Hazards** table.