



SAN JOSÉ STATE
UNIVERSITY



FORKLIFT TRAINING MANUAL

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Notes

OSHA REQUIREMENTS: FORKLIFT OPERATOR TRAINING

The Occupational Safety and Health Administration (OSHA) issued new training requirements for forklift operators and drivers of other industrial trucks in a final rule published in the Federal Register on December 1, 1998 (29 CFR 1910.718).

OSHA has required training for forklift operators since 1971; however, the requirements have been fairly minor. The new rule spells out detailed training requirements for operators of "powered industrial trucks," which the Agency defines as "mobile, powered-driven vehicles used to carry, push, pull, lift, stack, or tier material." These would include things such as high lift trucks, pallet trucks, and forklift trucks.

EFFECTIVE DATE: This new rule for forklifts is effective March 1, 1999.

The SJSU Forklift Certification Program has been developed to meet the requirements of the OSHA regulation for Forklift Operator Training. For questions regarding this program or to receive training guidance and materials contact the Safety and Risk Service Unit at 408-924-2155.

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Overview

Forklift training is required for all individuals who wish to use the forklift at SJSU. This manual is presented as a guide and may be used for retraining/re-certification only. Initial training in forklift safety requires completion of web-based ClarityNet Forklift Certification training through SJSU Safety and Risk Services as well as a “hands-on” practical evaluation of your forklift operator skills. This skills test should be provided by a experienced and knowledgeable forklift operator within your department. You may contact SJSU Safety by dialing 4-2155 from any SJSU facility phone or from the SJSU campus. Those wishing to reach SJSU Safety from other locations should dial 408-924-2155. This document contains information of use for all individuals using the forklift at the SJSU campus.

Forklift training at SJSU is mandatory and requires both computer based training and hands-on experience. Although the operation of a forklift is similar to that of a car, there are important differences, including the speed, visibility, load stability, lack of stability on inclines or declines, path smoothness (potholes etc), load height, load rigging etc. Training is provided to all SJSU personnel to help move heavy objects, usually on pallets that would otherwise be difficult to move. Using a forklift carries responsibilities. Individuals who do not wish to accept such responsibilities or who have physical limitations such as reduced peripheral vision may elect not to become forklift certified. Many individuals of SJSU staff are trained to drive the forklift and can be made available to assist individuals in moving materials via the forklift.

SJSU Forklift Training Overview / Study - Guide

Training reduces risk.

 Check controls before starting.

 Know how to handle situations.

 Wear proper equipment.

 Make sure you can see.

SJSU Forklift Training Requirements

All operators of lift trucks must be trained and receive a certificate or license to indicate the employee's knowledge, skill, and ability to safely operate a powered lift truck. The certification must include the name of the trainee, the date of the training, and the signature of the person performing the training and evaluation.

Refresher training of the operator's performance must be conducted at least every 3 years by completing the practical training.

Initial training will consist of:

I. Formal instruction: (Minimum Requirements)

- a. Computer-Based "ClarityNet" Forklift Certification Training
- b. Videotape Review - "Forklift 2000" (available for loan)
- c. Review of Daily inspection sheet (Forklift pre-use Daily Inspection)

II. Additional training resources:

- a. Review of " Forklift Training Overview / Study – Guide" (11 pages)

III. Practical Training:

- a. Performance of inspection
- b. Demonstration by the trainer on maneuver of industrial lift
- c. Practical demonstration by the trainee and evaluation by the trainer.

Practical demonstration should include:

- A rack containing a pallet, preferably elevated rack.
- A cross-aisle (intersection)
- Trash in the aisle (i.e.; book, board, etc.).
- Completion of "Lift operator Skills evaluation" form

The operator is to pick up a pallet from the rack and transport it, crossing an intersection or cross-aisle, and placing pallet safely on the ground within a designated location. The operator is to return with the pallet along the same route.

Remind the operator to proceed perpendicular to any road grades or slopes to prevent tipping of forklifts. Stop trainee immediately if unsafe acts or conditions occur while testing.

IV. Forms: Attachments

- 1: Forklift pre-use Daily Inspection
- 2: Lift operator Skills evaluation

V. Required Posting in Work area & Cal OSHA operating rules:

3. Post the Cal-OSHA "Operating Rules for Industrial Trucks"
4. Cal-OSHA safe operating rules

Safety Inspection

- Safety inspection is performed once per day or shift
- All defects are to be logged daily

Forklift operators must make judgment calls from the beginning to the end of each job. Some things which must be considered include the weight of the load and the forklift capacity, the stability of the load, the height at which a load must be lifted, obstacles both in the path and overhead where the forklift operator is operating, and blind-spots or individuals who might be sharing the work space with the forklift operator and vertical incline.

Before using the forklift, always check to see that the charge is at least $\frac{1}{2}$ full for normal loads and $\frac{3}{4}$ full for heavy loads. If the load to be lifted is rated at 90% or more of capacity, the charge should be full.

Safety inspections are important because using damaged equipment has the potential for serious accident scenarios. Operating a forklift that is not fully charged is a recipe for disaster when lifting a heavy load.

The SJSU forklift capacity is 3000 lbs including the weight of pallets or lifting equipment.

Operator Responsibility

- Pre-op safety inspection
- Driving to pick-up load
- Load pick-up
- Driving load
- Setting down a load

Each forklift operator has many responsibilities whenever he or she is engaged in picking up and moving a load. It is easy to become complacent from routine operations. This is why training is an important part of any safety program. Training should include initial hands on experience, encompassing each element of forklift operation. Retraining is also necessary to diffuse bad habits and to reiterate important situations, which might have been forgotten by the casual forklift operator. Training always reduces risks.

Pre-op safety inspections are fundamental to safe operations of the forklift. In addition to knowing the load capacity, operators must be knowledgeable regarding the use of all forklift levers. Always test proper operation and electrical charge of a forklift prior to beginning any lift. Operators should be cautious of driving forklifts up or down inclines, whether or not they are carrying a load. Drivers should engage forks completely when picking up a load. Loads should only be lifted to a height to clear stacks and then lowered to a position which gives both maximal stability and clearance of obstacles. Operators should always be aware that they may have to share their space with pedestrians. Therefore, they should always use spotters when driving around blind corners or other areas where visibility is impaired. When approaching a stack to set down a load, the operator must ensure that the area of approach is clear of personnel.

Electric Forks

- Make sure the forklift is charged before using
- Minimum charge should be $\frac{1}{2}$ of capacity ($\frac{3}{4}$ for heavy loads)
- Heavy loads drain the battery more quickly

Electrical forklifts have many advantages and disadvantages. There is no exhaust, and therefore they are the vehicle of choice for closed indoor work. Fumes from diesel or gas powered vehicles will rapidly degrade indoor air quality. However, electrical forklifts must be routinely recharged. An operator should never begin to use an electrical forklift that does not have at least a $\frac{3}{4}$ charge on the battery. Further, operators must be aware that heavy loads [greater than 90% of load capacity] will significantly and rapidly deplete the load charge on the battery. This is because more work is being done on a heavy load than on a light load. Topping off batteries must only be done when the battery is disconnected and in an area where there is adequate room for the task. Only qualified [trained] personnel should be permitted to oversee the task of recharging electrical forklifts. Having been certified as a forklift operator does not automatically confer the ability to recharge the forklift. Inform your supervisor or facility manager if you feel your electrical forklift requires recharging.

Checking Controls

- Check that the horn functions
- Check the steering mechanism with the engine running
- Check the breaks (not more than $\frac{1}{2}$ inch travel)
- Check the seat brake
- Check that the clutch disengages the transmission
- Check the hydraulic controls-lift and tilt levers

All forklift work begins by going through a mental checklist. After checking tires, make sure that the horn and warning backup lights perform as specified when the forklift is put in reverse. Check that the forklift steers properly both in the forward and reverse directions. Always check the foot brake to ensure it engages when pressed. The travel on a foot brake should be no more than $\frac{1}{2}$ inch.

Seat brakes are provided on a forklift as a safety device. When someone is seated on the seat, it is possible to operate the forklift. By lifting yourself out of the seat, you should no longer be able to move the forklift either in the forward or backward direction. Some forklifts are equipped with a clutch. This should always be checked to see whether it will disengage the transmission before making a lift.

Operators should test all hydraulic controls before attempting to pick up a load. This includes lift, tilt and horizontal [used for centering a load] hydraulic levers. At the same time, the operator can ensure that all chains move smoothly. All of these actions are required before attempting to lift a load. It does the operator no good to be stuck with an elevated load, which will not move because he or she neglected to test the controls before lifting the load. It is the responsibility of the forklift operator to ensure that the forklift is in proper working order before attempting to lift or move a load. Operators who have time limits should not bypass these important checklist items in an effort to save time. They should reschedule or pass on their responsibility.

Forklift Safety

- Cages offer protection
- Inspect all items before moving a load
- Check pallets and remove any loose items
- Wear a helmet for additional protection
- Make sure all the loads are secure
- Lower loads to move

Forklift cages are designed to protect the operator from falling debris or to offer minimal protection during a rollover. Forklifts should be equipped with a seatbelt, which must be used at all times that the operator is in the forklift. The forklift should also carry a portable fire extinguisher. The most important part of moving a load is to ensure that the load is stable and secure before beginning the task. All items to be lifted by engaging forks must be on a pallet. Pallets are designed to permit the forks to completely engage during the forklift operation. Damaged pallets should never be used for forklift operations. Further, items on a pallet must be secured. This is normally accomplished by shrink-wrapping the items to be moved. Lifting straps or metal banding are also acceptable ways of securing large items. Before lifting, make sure the pallet is clear of any loose items such as screwdrivers, nails or other items that may have been used to secure the pallet. These unsecured items can act as projectiles during a lift. That is why helmets are recommended for additional protection.

Stability of loads is greatly enhanced by lowering the load before and during forklift movement. The forks should be placed so as not to scrape any low lying obstacles and the pallet height (including load) must be low enough not to interfere with the forklift driver's vision. If vision is impaired, it is necessary to have a spotter at all times, or to drive the forklift backwards to assure proper vision at all times.

Precautions

- Be aware of obstacles, both ahead and overhead
- Be cautious about cable trays
- Move materials only in the designated areas with adequate space
- Do not block individuals into a stack

Forklift operators must always be aware of overhead obstacles as well. Electrical power lines are the leading cause of death in forklift operations.

Extreme caution must be used when using the forklift near electrical lines. Always lower the load to be moved to decrease the possibility of interacting with the cable trays and to increase visibility for the forklift driver.

Always ensure that the designated area for load placement is of adequate square footage and that no individuals would be trapped between the load and other obstacles if the load were to be placed in the designated area. Never place a load where an individual would be trapped.

Additional Precautions

- Make sure horn works well
- Be cautious when backing up
- If you cannot see well, have a spotter
- Loads should be lowered for stability and to increase the vision of obstacles

The SJSU forklift is equipped with a horn, which sounds continuously while the forklift is moving in the reverse direction. Always make sure the horn is working properly by testing the horn while moving the forklift (unloaded) in the backward position. While backing up, the driver does not have a full and unrestricted view of the area. For this reason, it is a good idea to have a spotter who has a full 360 degrees view of the area behind the forklift and can check for obstacles or the presence of individuals along the path of forklift movement. In the forward direction lowering the load and tilting the load back towards the forklift frame increases stability as well as driver visibility.

Checking Loads

- Check that pallet is undamaged
- Check that load is banded
- Check that area is clear of people and debris

One of the most important aspects of forklift operation is checking the load to be lifted. Most forklift loads are moved on pallets. Alternately, loads may be lifted via sling onto one or both forks. When using a sling, care should be taken to ensure that the sling is fitted towards the back of the fork (i.e. closest to the forklift frame) to prevent or reduce the risk of sling slippage. All pallets should be inspected for integrity. Broken or pallets of insufficient mechanical strength should be replaced. Small materials on pallets should be shrink wrapped in place before moving. Pallet height should also be kept to a minimum in order to increase driver visibility and overall stability. If vision is impaired by the load height, the driver may elect to drive the load backwards.

Also check to make sure the forklift travel path has been cleared of all obstacles and personnel. Remember pedestrians always have the right of way.

Load Capacities

- Be aware of load centers
- Be aware of the total capacity
- Do not exceed load center
- Be aware that fork extenders make the load less stable
- Most tipping accidents occur because of the above problems

In addition to proper palleting, materials to be moved to via forklift must always be centered. A heavy long load that is not centered could cause the forklift to tip sideways with the potential for serious harm.

In many instances, forklift operators may be requested to move long loads where the forklift forks, although completely engaged, do not traverse the length of the load. Sometimes this is the only way to remove materials from a transport truck. Under these circumstances, the driver may elect to use the fork extension provided for the SJSU forklift. However these fork

extenders decrease load stability and add to the fulcrum effect. If the fulcrum is too long, it may cause the rear of the forklift to raise up. If this happens, abort the lift immediately. As soon as possible try to reposition the load so that the forks can clear the width of the load. Exceeding the load center is dangerous and increases the risk of tipping the forklift with the possibility of serious injury or death.

Load Pickup-1

- Center forks on the load
- Approach slowly to about 12” from the load
- Engage forks completely
- Lift forks until the load is engaged
- Tilt mast back
- Clear stacks by slowly backing away from them
- Lower forks for travel

Continuity in forklift load handling reduces the risk of injury or accident. Always center the loads on the forks. In tight spaces a light load can be moved to a clearer space but should always be re-centered and the forks fully engaged before moving the load to an other location. To increase load stability, the loads must always be tilted backwards to reduce the risk of load slippage. This is especially important when fork length does not engage the load completely (i.e. exceeds load center). When removing palletted materials from a stack, engage the loads with centered forks as far as possible over the entire fork length. Lift the load slightly to clear the stack and back away slowly until the stack is cleared. The loads may be lowered before moving further. Raised forks decrease stability of the load and must be as low as possible before moving the load.

Load Pickup-2

- Check overhead guard
- Check vertical load backrest. The higher the load, the less the stability
- Adjust fork extension to maximum for load. Do not exceed load center (24 inches)
- Be aware that fork extenders make the load less stable
- Know the capacity of the forklift; if rear wheels lift up, STOP!

When approaching any area for load pick-up, the forklift driver must always be aware of the potential for overhead obstacles. The overhead guard, the primary protection device in a rollover (along with the forklift seat belt) must be intact. Because the frame is metal, it conducts electricity. The majority of forklift accidents are electrocution by interference with overhanging electrical wires and roll over of forklifts by unbalanced loads, driving off ramps or over additional obstacles.

Wide loads present additional challenges to forklift operators. The longer the forks, the less stable the load. Fork extensions are available to increase forklift but drivers must be aware that this reduces forklift stability. The SJSU forks (without extensions) have a total length of 48 inches with a load center of 24 inches. Extreme care must be taken to move loads exceeding 48 inches in length with the SJSU forklift. If the rear of the forklift begins to raise off the ground, abort the lift immediately. You have exceeded the load capacity of the SJSU forklift, which is 3000 lbs.

Load Stability

- Tilting the load forward reduces the load stability and can cause damage to the forks
- Check the vertical load backrest. The higher the load, the less the stability
- Adjust the fork extension to maximum for load. Do not exceed load center (24 inches)
- Be aware that fork extenders make the load less stable
- Know the capacity of the forklift; If rear wheels lift up, STOP!

One cannot over-emphasize the importance of being especially cautious around electrical conducting wires and devices. The SJSU forklift is equipped with bronze forks that are especially formulated to reduce spark formation in a flammable area. Such an area would be one where solvents are in use. However the remainder of the forklift remains electrically conductive. Bronze forks are susceptible to damage if they are grounded. Tilting the load backwards during movement increases load stability and minimizes the potential for grounding of the forks, process, which can generate sparks in a hazardous environment as well as damage the forks, making them unsuitable to lift any load.

If the load is too large to see clearly over the top of the load, move the load by driving backwards. Forklift drivers must also drive backwards when going down or up an incline.

Accident Prevention

- Accidents can and will happen
- If at any time the back of the forklift begins to lift, STOP!

Working with a forklift requires constant attention to the hazards in front, above and around the area of operation. Despite one's best intentions, there is always a possibility for an accident to occur. Forklift operators should take precautions to minimize accident potential. They should verify that the charge on the forklift is adequate to the task (at least $\frac{1}{2}$ full for normal loads and $\frac{3}{4}$ full for heavy loads), they should survey the travel route before making a lift to familiarize themselves with any potential obstacles, they should warn people in the area that forklift operations are underway, they should arrange for a spotter if there is any potential obstacle which could have serious consequences if hit by the forklift, or if there are blind spots along the way. If their vision is impaired due to the size of the load, a spotter is essential for safe completion of the lift or the forklift must be driven backwards to ensure a clear line of sight. Most of all the driver must be on the look-out for any behavior that could jeopardize the operation such as exceeding the load center, forklift maximum weight etc.

Stacking

- Take precautions when loading or pulling from a stack
- Do not stack materials too high
- Make sure the area is clear of personnel

Special precautions are necessary when stacking materials (as in a warehouse situation). The bottom pallet of the stack must be able to take the entire weight of the stack without damage. Many palleted materials are sensitive (such as equipment) and may be damaged if stacked. Materials should not be stacked so high as to become unstable (height to width aspect ratios are important). Particular attention must be paid to centering each load on a stack. Uneven, non-centered loads present serious hazards to life, limb, and equipment. When pulling a load from a stack, extreme care must be taken to ensure that other pallets in the stack are not dislodged, moved or damaged during load removal. Stacks that are too high increase the risk for accidents as moving loads with extensions adds to instability. Further, if stacks are not evenly centered, it may be impossible to completely engage the forks. Most importantly, make sure the area is clear of any personnel to avoid serious risk of injury.

Moving Loads

- Pallets should be level before stacking additional materials.
- Lower the load to increase vision and always tilt the load backwards to increase stability

Stacks that are not maintained level, centered, and even increase the risk for instability. Care should be taken to examine stack stability frequently, especially for those items that are stacked outside and may be susceptible to high winds, rain or other potential natural hazards. Wooden pallets left outside can degrade rapidly, endangering the stack and increasing the potential for collapse or stack slippage.

Loads are most secure when lowered and tilted backwards. During such forklift operations, it is necessary to tilt loads backwards to prevent the movement of the load forward (which would increase the effective mass of the load) and to prevent load loss.

Such slippage of a mass could cause the rear of the forklift to raise up and in extreme cases, cause the forklift to flip.

Before picking up a load, always apply the hand brake. This will ensure that the forklift does not move while picking up or putting down a load.

Driving A Forklift

- Never drive when you cannot see
- Be aware of overhead obstructions
- Never travel with load in raised position
- Make gradual accelerations and decelerations
- Do not exceed a speed of 5 mph

There are many duties assigned to a forklift driver. In addition to being certified regarding the use of a forklift, including all levers, steering, brake and operational parameters, the forklift operator is also charged with assuring that all forklift movements are conducted safely. Such items as ascertaining that there are no blind spots while moving the load and that the driver is familiar with all overhead obstacles and their placements also fall under the realm of forklift operator responsibilities.

Operators must ensure that all movements are made gradually for both acceleration and deceleration and that movements are slow and deliberate. Quick stops may cause a load to unbalance.

Always plan ahead for the unexpected. If vision is impaired by the height of the load, the driver may elect to move the load by driving backwards and looking backwards with a clear line of sight.

Setting Down A Load

- Never drive up to a person standing at a stack
- Do not block exits
- Tilt mast forward to the vertical
- Set the load down or on a stack
- Look back and then clear the stacks
- Lower the forks

After the forklift operator has moved the load to the pre-designated area, the operator must carefully set down the load. The first to do after reaching the unloading position is to set the brake, making sure that the designated area does not block any emergency exits or a person who may be moving around the area chosen for unloading. After the brake is set, tilt the mast back to the vertical. You should remember that all loads are tilted backwards during movement to improve stability. Bringing the load back to the horizontal also ensures that all four corners of the load will touch the floor simultaneously, evenly distributing load weight. Slowly lower the load until the pallet rests firmly on the floor. Lift the forks just enough off the floor to clear the pallet and clear the forks by moving backwards. Make sure the way is clear to back up and always make sure the back-up horn is functioning properly. In tight spaces, a spotter may be necessary to safely execute this task.

Common Forklift Pitfalls

- Beware of unstable stacks
- Beware of forks left too high for proper operation of the forklift

Many loads are so high that they can completely obscure the operator's line of sight. Splitting the load into two separate pallets is the preferred solution. Occasionally, a single piece of machinery or other objects is so large that no other alternative is possible. In these circumstances the forklift operator must use a spotter or drive the load backwards. Spotters should be chosen with care. They must be able to respond to danger quickly, must be responsible, and must be able and willing to effectively communicate with the driver. Materials that are to be stacked have special risks. Operators must be extremely precise in the placement of stacked loads: any deviation from the center could cause the load to topple. Further, the operator must know the weight limitation of pallets (the lowest pallet supports the entire weight of the stack) as well as the nature of materials to be stacked (i.e. will they collapse under the weight of even a single pallet).

Forklift Hazards

- Load not completely engaged on forks results in instability
- Backup on inclines or declines improves stability and visibility

Load center is an important concept in forklift operation. As stated previously, common forklift lengths are 48 inches, and the load center should be half that distance (24 inches). Wide loads through which the forks do not completely penetrate are subject to instability through a fulcrum lever effect. Such effects may be intensified for loads that need to be transported up an incline or down a ramp. Tilting the load backwards helps somewhat in this effect. However forklifts should always be placed in such a manner as to center the load and to engage the forks through the entire width of the load to be carried. Always drive the forklift backwards while on an incline.

Other Safety Notes

- Never get more than 25 feet away from an unattended truck
- When finished, always ground the forks
- When starting, always raise forks before driving
- If in doubt about anything, ASK!
- No one should ever walk near or under a load

Operators should never be more than twenty-five feet from a powered lift truck. It is fine to verify the area over which a load will pass by getting out of the truck to have a proper and thorough view. However always put on the hand brake before leaving the forklift for area inspection. After using the forklift, always ground the forks. This prevents any obstacles from getting under the forklift and reduces the tripping hazard associated with raised forks. Whenever there is a question regarding proper procedure, the forklift operator must always satisfy him/herself, through a second party if necessary, that everything is being done to reduce risk. The operator has the responsibility to for assuring that no one walks under a load. Having a second person as a spotter is a useful addition to forklift operation.

Forklift Checklist

All forklift operators should follow this pre-safety inspection process in addition to any department safety inspection checklists. Remember, pre-safety inspections should be done each and every time the forklift is used. First the operator should check for any leaks. It is especially important to assure that there are no hydraulic fluid leaks. The operator should inspect the cage for structural soundness since this is the first line of protection in a roll over accident. Always check the charge and know the rated capacity of the forklift (Most SJSU forklift has a 3000 lb lifting limit). Questions regarding battery charge and connections should always be referred to SJSU facility management. Forklifts with solid rubber tires should be used with caution during rainy weather. Inspect the seat belt and the seat brake to confirm that it disengages drive train and prevents operation of the forklift when the driver stands up off the seat. Check the back-up horn by moving the forklift in reverse and that the engine and all levers are functional before beginning a lift.

The travel on the brake should be no more than ½ inch. Check the smooth operation of all the hydraulic systems and finally check the battery charge indicator. The operator must always be informed about the weight of the object to be moved, the quality of the pallet, how well things are bonded to the pallet. These checks must be made each and every time the forklift is used. Safety is the top priority at SJSU, and information as gathered through the checklist procedure significantly reduces the risk of forklift operation.



Attach 1

FORKLIFT PRE-USE DAILY INSPECTION

HUMAN RESOURCES SERVICE GROUP

Safety & Risk Services | One Washington Square | San José, CA 95192-0046

408-924-2150 | 408-924-2148 (fax)

Instructions: *To be completed daily prior to use. Keep original in department where lift truck is used. Send a copy to Safety and Risk Services.*

CHECKLIST			
Fork-truck or equipment number: _____			
Powerplant of truck:			Comments
a. Battery-powered electric truck			
1. Battery for damage	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
2. Corrosion	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
3. Loose connections	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
b. Gasoline, diesel, propane			
1. Fuel tank level	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
2. Fuel tank damage	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
3. All valves/hoses secure	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
Truck Operation			
a. Mast	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
b. Carriage	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
c. Forks	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
d. Overhead guard	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
e. Backrest	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
f. Hydraulic system	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
g. Tires	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
h. Capacity name plate	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
i. Hydraulic Fluid level	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
j. Brake fluid level	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
k. Oil level	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
l. Coolant level	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
Start Forklift, check controls as you put it through normal maneuvers and check:			
a. Lift	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
b. Tilt	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
c. Brakes	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
d. Steering	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
e. Lights	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
f. Horn	<input type="checkbox"/> Ok	<input type="checkbox"/> Other	
General comments:			
Name: _____	Date: _____	Initials: _____	
If anything is out of line, turn off forklift, tag it with a "do not operate" tag, and report			



Attach 2

LIFT OPERATOR SKILLS EVALUATION

HUMAN RESOURCES SERVICE GROUP

Safety & Risk Services | One Washington Square | San José, CA 95192-0046

408-924-2150 | 408-924-2148 (fax)

Instructions: *To be completed prior to use. Keep original in department where lift truck is used. Send a copy to Safety and Risk Services.*

TRAINEE DATA

Trainee Name: _____ Test Date: _____
 Facility/ Location: _____

CHECKLIST

Truck Type: Sit-down Stand-up Powered by: Electric LPG
 Other description: _____

(1-8) Physical examination of the truck.

Operator must perform and describe inspection of each item:

- 1. Tilt Pass Fail
- 2. Raise/lower Pass Fail
- 3. Horn Pass Fail
- 4. Tires Pass Fail
- 5. Oil leaks Pass Fail
- 6. Brakes Pass Fail
- 7. Capacity plate Pass Fail
- 8. Mast chains Pass Fail

- 9. Did the operator pull forward toward the designated section of racks without striking anything? Pass Fail
- 10. The operator place the forks under the pallet properly? Pass Fail
- 11. Was the load raised or tilted properly? Pass Fail
- 12. The truck strike any section of racks when removing pallet? Pass Fail
- 13. Was the pallet lowered before traveling? Pass Fail
- 14. Safe rate of speed? Pass Fail
- 15. Stop/ slow down at cross aisles? Pass Fail
- 16. Sound horn at cross aisles? Pass Fail
- 17. When returning pallet, did operator pull into rack properly? Pass Fail
- 18. Any racks struck while replacing pallet? Pass Fail

19. Did the operator back out and lower forks before moving? Pass Fail

20. Did the operator look behind when backing up? Pass Fail

21. Proper safety equipment worn? Pass Fail

22. Did the operator drive around the "trash" or pick it up? Pass Fail

23. Set the load / forks flat on floor before getting off? Pass Fail

24. Was seat belt used? Pass Fail

25. Did the operator make any moves that were potentially dangerous? Pass Fail

26. Ask the operator to describe **three** safety rules for loading/ receiving at the dock.

- Chock wheels
 - Truck turned off
 - Warn others
 - Proper lighting
 - Watch for others
 - Load limits on truck
 - Height limits from carriage
 - Other
- Pass Fail

27. Ask the operator to describe **two** safety rules to follow at the battery charging station.

- Proper equipment
 - Proper plug/ unplug
 - No smoking
 - Clean-up procedure
 - Eyewash station
 - Other
- Pass Fail

General Comments:

SUPERVISOR

Name: _____ Date _____

Total Points (30 max):

Attach 3 – Safe operating rules identified in CCR Title 8, Section 3650

Reprint of Cal/OSHA Regulations, Title 8, Section 3650, California Code of Regulations

1. Only drivers authorized by the University and trained in the safe operations of industrial trucks or industrial tow tractors shall be permitted to operate such vehicles. Methods shall be devised to train operators in safe operation of powered industrial trucks.
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 least once per shift, and if it is found to be unsafe, the matter shall be reported immediately to a supervisor or Transportation Services, 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 of 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/ride 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, either:
 - a. The power shall be shut off, brakes set, the mast brought to the vertical position, and forks left in the down position. When left on an incline, the wheels shall be blocked; or
 - b. The power may remain on provided the brakes are set, the mast is brought to the vertical position, forks are left in the down position, and the wheels shall be blocked, front and rear.
 - c. NOTE: When the operator is over 25 feet (7.6 meters) from or out of sight of the industrial truck, the vehicle is considered unattended.
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.
 - a. 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 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.