



FORKLIFT SAFETY



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Forklifts are used in numerous work settings to move materials. According to the Bureau of Labor Statistics, nearly 100 workers are killed and another 20,000 are seriously injured in forklift-related incidents each year. The most common types of fatal forklift incidents are overturns; falls; and workers struck, crushed, or pinned. Reducing the risk of forklift incidents requires comprehensive training, systematic traffic management, and a safe work environment, forklift, and work practices.

To ensure employee safety, the following requirements are enforced by Cal/OSHA for forklift operation:

1. Train and license operators prior to permitting forklift operation. [See Title 8, California Code of Regulations (T8CCR), Section 3668 (a)(2) at <http://www.dir.ca.gov/title8/3668.html>].
2. Provide refresher forklift training and evaluation every three years or when an operator is observed operating a forklift in an unsafe manner, operator has been involved in an accident or near-miss incident, operator has been assigned to operate a different type of truck, or conditions in the workplace change affecting the safe operation of the forklift. [See T8CCR§3668 at <http://www.dir.ca.gov/title8/3668.html>].
3. Maintain training records. Records should include the operator's name, training date, evaluation date, and the identity of the person who conducted the training and evaluation. [See T8CCR§3668(f) at <http://www.dir.ca.gov/title8/3668.html>].
4. Post and enforce "Operating Rules For Industrial Trucks". [See http://www.dir.ca.gov/dosh/dosh_publications/IndTrucks_Eng.pdf].
5. Inspect forklifts prior to operation and report any malfunctioning or unsafe conditions. If deficiencies are noted, discontinue use of the forklift(s) until repaired. [See T8CCR§3650(S)(7) at <http://www.dir.ca.gov/title8/3650.html>].
6. Display the rated capacity on the forklift in such a manner that it is readily visible to the operator at all times. [See T8CCR§3660(a) at <http://www.dir.ca.gov/title8/3660.html>].
7. For battery powered forklifts, provide emergency eyewash and shower equipment in accessible locations that require no more than 10 seconds for the injured person to reach unless the storage batteries are equipped with explosion resistant or flame arrestor type vents or located in a compartment or other location exposure. [See T8CCR§5162 at <http://www.dir.ca.gov/title8/5162.html>].
8. If employees are required to charge batteries, train and instruct employees in proper procedures of battery charging. [See T8CCR§5185 at <http://www.dir.ca.gov/title8/5185>].

Contact Loss Control and Prevention for assistance with your formal written program.



Forklift Daily Maintenance Checklist

Department: _____
Location: _____
Operator: _____

Serial/Unit#: _____
Date: _____
Supervisor: _____

Inspect each forklift before operation and report any defective item identified below or unsafe condition and discontinue use of forklift until repaired.

CHECK ANY DEFECTIVE ITEM WITH AN "X" AND GIVE DETAILS BELOW

- | | | | | | |
|-------------------|--------------------------|-----------------------|--------------------------|----------------------------|--------------------------|
| ACCELERATOR | <input type="checkbox"/> | ENGINE OIL LEVEL | <input type="checkbox"/> | LOW OIL PRESSURE | <input type="checkbox"/> |
| OIL LEAKS | <input type="checkbox"/> | UNUSUAL NOISES | <input type="checkbox"/> | OUTRIGGER | <input type="checkbox"/> |
| BACKUP SIGNAL | <input type="checkbox"/> | FRAME LEVELING | <input type="checkbox"/> | OVERHEAD GUARD | <input type="checkbox"/> |
| BATTERY CONNECTOR | <input type="checkbox"/> | FUEL FILTER | <input type="checkbox"/> | RADIATOR FLUID LEVEL | <input type="checkbox"/> |
| STEERING | <input type="checkbox"/> | GAUGES | <input type="checkbox"/> | RADIATOR LEAKS | <input type="checkbox"/> |
| PARKING BRAKE | <input type="checkbox"/> | HORN | <input type="checkbox"/> | TIRES | <input type="checkbox"/> |
| SERVICE BRAKE | <input type="checkbox"/> | HYDRAULIC CONTROLS | <input type="checkbox"/> | TRANSMISSION LEAK | <input type="checkbox"/> |
| DOORS | <input type="checkbox"/> | HYDRAULIC FLUID LEVEL | <input type="checkbox"/> | TRANSMISSION FLUID LEVEL | <input type="checkbox"/> |
| MIRRORS | <input type="checkbox"/> | HEAD/TAIL LIGHTS | <input type="checkbox"/> | CONTRACT/EXTEND CONTROL | <input type="checkbox"/> |
| STEPS | <input type="checkbox"/> | SEAT BELT | <input type="checkbox"/> | LOWERING/RAISING CONTROL | <input type="checkbox"/> |
| WINDOWS | <input type="checkbox"/> | ENGINE BELTS | <input type="checkbox"/> | FORK CONDITION | <input type="checkbox"/> |
| BATTERY INDICATOR | <input type="checkbox"/> | PROPANE TANK | <input type="checkbox"/> | LOAD CAPACITY RATING PLATE | <input type="checkbox"/> |

DETAILS:

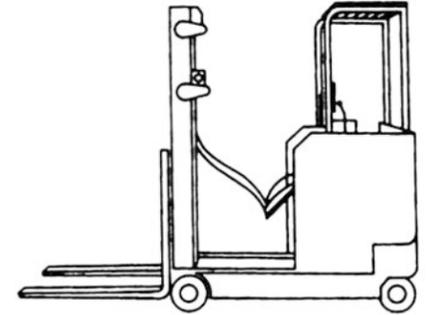
Make 2 copies: 1) maintenance and 2) supervisor



OPERATING RULES FOR INDUSTRIAL TRUCKS



Operating rules for industrial trucks contained on this poster are current through Register 2002, No. 22 California Code of Regulations (operative 6-27-2002). Other rules may also apply.



General Industry Safety Order 3664 Operating Rules (Part (a)).

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

General Industry Safety Order 3650 Industrial Trucks. General (Part(s)).

- (s) Industrial trucks and tow tractors shall be operated in a safe manner in accordance with the following operating rules:
- (1) Only drivers authorized by the employer and trained in the safe operations of industrial trucks or industrial tow tractors pursuant to Section 3668 shall be permitted to operate such vehicles.
 - (2) Stunt driving and horseplay are prohibited.
 - (3) No riders shall be permitted on vehicles unless provided with adequate riding facilities.
 - (4) Employees shall not ride on the forks of lift trucks.
 - (5) Employees shall not place any part of their bodies outside the running lines of an industrial truck or between mast uprights or other parts of the truck where shear or crushing hazards exist.
 - (6) Employees shall not be allowed to stand, pass, or work under the elevated portion of any industrial truck, loaded or empty, unless it is effectively blocked to prevent it from falling.
 - (7) Drivers shall check the vehicle at the beginning of each shift, and if it is found to be unsafe, the matter shall be reported immediately to a foreman or mechanic, and the vehicle shall not be put in service again until it has been made safe. Attention shall be given to the proper functioning of tires, horn, lights, battery, controller, brakes, steering mechanism, cooling system, and the lift system for fork lifts (forks, chains, cable, and limit switches).
 - (8) No truck shall be operated with a leak in the fuel system.
 - (9) Vehicles shall not exceed the authorized or safe speed, always maintaining a safe distance from other vehicles, keeping the truck under positive control at all times and all established traffic regulations shall be observed. For trucks traveling in the same direction, a safe distance may be considered to be approximately 3 truck lengths or preferably a time lapse--3 seconds--passing the same point.
 - (10) Trucks traveling in the same direction shall not be passed at intersections, blind spots, or dangerous locations.
 - (11) The driver shall slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.
 - (12) Operators shall look in the direction of travel and shall not move a vehicle until certain that all persons are in the clear.
 - (13) Trucks shall not be driven up to anyone standing in front of a bench or other fixed object of such size that the person could be caught between the truck and object.
 - (14) Grades shall be ascended or descended slowly.
 - (A) When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.
 - (B) On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.
 - (C) Motorized hand and hand/rider trucks shall be operated on all grades with the load-engaging means downgrade.
 - (15) The forks shall always be carried as low as possible, consistent with safe operations.
 - (16) When leaving a vehicle unattended (the operator is over 25 feet (7.6 meters) from or out of sight of the industrial truck), the brakes are set, the mast is brought to the vertical position, and forks are left in the down position, either:
 - (A) The power shall be shut off and, when left on an incline, the wheels shall be blocked; or
 - (B) The power may remain on provided the wheels are blocked, front and rear.
 - (17) When the operator of an industrial truck is dismounted and within 25 feet (7.6 meters) of the truck which remains in the operator's view, the load engaging means shall be fully lowered, controls placed in neutral, and the brakes set to prevent movement.

Exception: Forks on fork-equipped industrial trucks may be in the raised position for loading and unloading if the forks are raised no more than 42 inches above the level where the operator/loaders are standing, and the power is shut off, controls placed in neutral and the brakes set. If on an incline, the wheels shall be blocked.
 - (18) Vehicles shall not be run onto any elevator unless the driver is specifically authorized to do so. Before entering an elevator, the driver shall determine that the capacity of the elevator will not be exceeded. Once on an elevator, the industrial truck's power shall be shut off and the brakes set.
 - (19) Motorized hand trucks shall enter elevators or other confined areas with the load end forward.
 - (20) Vehicles shall not be operated on floors, sidewalk doors, or platforms that will not safely support the loaded vehicle.
 - (21) Prior to driving onto trucks, trailers and railroad cars, their flooring shall be checked for breaks and other structural weaknesses.
 - (22) Vehicles shall not be driven in and out of highway trucks and trailers at loading docks until such trucks or trailers are securely blocked or restrained and the brakes set.
 - (23) To prevent railroad cars from moving during loading or unloading operations, the car brakes shall be set, wheel chocks or other recognized positive stops used, and blue flags or lights displayed in accordance with applicable regulations promulgated by the Public Utilities Commission.
 - (24) The width of one tire on the powered industrial truck shall be the minimum distance maintained from the edge by the truck while it is on any elevated dock, platform, freight car or truck.
 - (25) Railroad tracks shall be crossed diagonally, wherever possible. Parking closer than 8 1/2 feet from the centerline of railroad tracks is prohibited.
 - (26) Trucks shall not be loaded in excess of their rated capacity.
 - (27) A loaded vehicle shall not be moved until the load is safe and secure.
 - (28) Extreme care shall be taken when tilting loads. Tilting forward with the load engaging means elevated shall be prohibited except when picking up a load. Elevated loads shall not be tilted forward except when the load is being deposited onto a storage rack or equivalent. When stacking or tiering, backward tilt shall be limited to that necessary to stabilize the load.
 - (29) The load engaging device shall be placed in such a manner that the load will be securely held or supported.
 - (30) Special precautions shall be taken in the securing and handling of loads by trucks equipped with attachments, and during the operation of these trucks after the loads have been removed.
 - (31) When powered industrial trucks are used to open and close doors, the following provisions shall be complied with:
 - (A) A device specifically designed for opening or closing doors shall be attached to the truck.
 - (B) The force applied by the device to the door shall be applied parallel to the direction of travel of the door.
 - (C) The entire door opening operation shall be in full view of the operator.
 - (D) The truck operator and other employees shall be clear of the area where the door might fall while being opened.
 - (32) If loads are lifted by two or more trucks working in unison, the total weight of the load shall not exceed the combined rated lifting capacity of all trucks involved.