

Forklift Program Development (Powered Industrial Truck)

A Powered Industrial Truck (PIT) program is required by OSHA if your company has any mechanized-wheeled equipment for moving material or employees (lifts). OSHA's PIT standard also covers motorized pallet jacks.

Ensure that the type motor or engine for each type in service is compatible with the environment in which it will be used.

Refueling or recharging stations must be designed with proper ventilation - petroleum or LP gas refueling areas must be outside - battery charging areas require a well ventilated area with eye-wash/showers and material for battery acid spill cleanup. Battery charging creates hydrogen gas which is highly explosive.

OPERATIONS

Look at the operational environment for both the forklift and the operator. Select the type of motor (electric, gas, etc) and classification that is compatible with potential and existing hazards. Check paths of travel to ensure they are not restrictive and are well lit. Forklift traffic paths should be marked on the floor

areas to warn pedestrians. Protect unguarded drop-offs and utility areas. Look at areas where forklifts must make corners

- ensure stair landings or doorways do not exit blindly into forklift traffic paths.

Control liquid spills - look for sources of leaks into traffic paths. A small amount of liquid can be very hazardous in operation of forklifts.

Place signs and mirrors along traffic paths. Set and enforce a safe speed limit both inside and outside.

Establish routine daily operator inspections and documentation. Establish procedures for identification, removal from service, replacement and control of unsafe equipment.

Install seatbelts on all seats and attachments for lanyards & harnesses for any equipment used to elevate a worker above

floor level. All attachments must be authorized for the specific fork truck by the manufacturer.

Label attachments to show with what equipment they can be used.

Shipping Docks - check all areas for clearance. Conduct routine inspections of dock & bridge plates. Set up a key control

system to prevent trailers from being pulled away from docks while loading is in progress.

TRAINING

Step 1 Review Information

Review OSHA Standard 1910.178

Review equipment manufacturer's operator manuals

Step 2 Identify Operators & Equipment

Operators- Anyone who is expected to ever operate a forklift or other "Powered Industrial Truck" such as manlifts, pallet jacks, etc., must be training and certified as an operator. **Equipment -**

There are many different types of powered industrial trucks. Typically, these types of vehicles are known as forklifts or lift trucks. Some types of trucks are not capable of being ridden by the operator. These are also covered by the OSHA standard and training is required. Some trucks are fitted with attachments purchased from the manufacturer. The use of these attachments may affect the manner in which the truck is handled; therefore training on the use of the attachment would also be required. If your employees will be expected to operate several different types of powered industrial trucks, then training is required on the unique handling characteristics of the vehicles.

Step 3 - Define Training Methods

OSHA required that forklift training be conducted by a competent person. Your company decides

the level of competency. The trainer must know the equipment, be able to conduct training and evaluate trainee performance. **Training must consist of a combination of formal instruction and practical training.** Using both methods is the only way to ensure that the trainee receives and comprehends the instruction and uses the information to

safely operate a powered industrial truck. Note that the formal training need not take place in a classroom. Discussions can consist of the trainer talking to the trainee and explaining the training material, either in the workplace or in another location. The training must, however, include an explanatory element as well as a practical element.

Formal instruction may include lectures, conferences, classroom discussions, demonstrations, and written or oral tests. To make the training more understandable to the employee, consider using movies, slides, computers, video tapes and other visual presentations.

Using visual aids has several advantages, including:

- (1) The employees being trained remain more attentive, thereby increasing the training's effectiveness;
- (2) The trainer can use visual presentations to ensure that the necessary information is covered during the training;
- (3) Graphical presentations make better use of the training time by decreasing the need for the instructor to carry on long discussions about the instructional material; and,
- (4) Trainees have greater retention of information learned from graphical presentations. While some employees can learn instructional material while seated in a classroom, other employees may learn best by observing an operation (demonstration) and/or by personally performing an operation (practical exercise). In most cases, a combination of different training methods provides the best training in the least amount of time.

Step 4 Determine Program Content

Because each type (make and model) of powered industrial truck has different operating characteristics, limitations, and other unique features, a good employee training program for powered industrial truck operators should be based upon the type of vehicles that the employee will be trained and authorized to operate. The training should also emphasize the workplace's features that will affect how the vehicle must be operated. Finally, the training should include the general safety rules applicable to operating any powered industrial truck. The following is an outline of a generic powered industrial truck operator training program:

- (1) Characteristics of the powered industrial truck(s) the employee will be allowed to operate:
 - (a) Differences from the automobile;
 - (b) Controls and instrumentation: location, what they do, and how they work;
 - (c) Engine or motor operation;
 - (d) Steering and maneuvering;
 - (e) Visibility;
 - (f) Fork and/or attachment adaption, operation, and limitations of their use;
 - (g) Vehicle capacity;
 - (h) Vehicle stability;
 - (i) Vehicle inspection and maintenance the operator will be required to perform;
 - (j) Refueling or charging and recharging batteries;
 - (k) Operating limitations; and
 - (l) Any other operating instruction, warning, or precaution listed in the operator's manual for

the type of vehicle the employee is being trained to operate.

(2) The operating environment:

- (a) Floor surfaces and/or ground conditions where the vehicle will be operated;
- (b) Composition of probable loads and load stability;
- (c) Load manipulation, stacking, unstacking;
- (d) Pedestrian traffic;
- (e) Narrow aisle and restricted place operation;
- (f) Operating in classified hazardous locations;
- (g) Operating the truck on ramps and other sloped surfaces that would affect the stability of the vehicle;
- (h) Other unique or potentially hazardous environmental conditions that exist or may exist in the workplace; and
- (i) Operating the vehicle in closed environments and other areas where insufficient ventilation and/or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust.

(3) The requirements of the OSHA Standard.

After the training program has been completed, the employer must evaluate the trainee's knowledge and skills and determine that the employee is competent to operate the truck safely.

Step 5 Operator Evaluation

When the employee completes the training exercises and prior to operating the truck in the workplace, **an evaluation of the employee must be performed.** This evaluation will determine the adequacy of training and the ability of the employee to perform truck operations safely in the workplace. The OSHA standard also requires that an evaluation of the operator's performance be conducted at least once every three years and after refresher training. Training & evaluation records must include the name of the operator, the date of the training, the date of the evaluation, and the identity of the person(s) performing the training or evaluation.

Step 6 Refresher Training

During the course of truck operation, the supervisor may observe the employee performing an unsafe act, such as riding with the load too high or traveling at an unsafe speed. The person making the correction should point out the incorrect manner of operation of the truck or other unsafe act being conducted, tell the employee how to do the operation correctly, and then ensure the employee does the operation correctly. When there have been multiple on-the-spot corrections, the employer may decide to conduct a more structured retraining program which would include the following information:

- (1) Common unsafe situations encountered in the workplace;
- (2) Unsafe operating methods observed or known to be used;
- (3) The need for constant attentiveness to the vehicle, the workplace conditions, and the manner in which the vehicle is operated.
- (4) Once every 3 years for each qualified operator