

ENVIRONMENTAL HEALTH & SAFETY  
THE UNIVERSITY OF TEXAS AT TYLER



PROGRAM FOR  
FORKLIFT & INDUSTRIAL  
TRUCKS

2023

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**Introduction:**

The University of Texas at Tyler Environmental Health and Safety department has developed this Electrical Safety Program to ensure a safe work environment and to protect the health and safety of University Staff and any contractors/vendors working on university property. This program was written with guidance from OSHA guidelines, the University of Texas System Construction Safety Program, and on-site Job Hazards Analyses.

**Purpose:**

The purpose of this program is to establish requirements for the safe operation and use of Powered Industrial Trucks.

**Scope:**

This program applies to all UT Tyler faculty, students, staff, or contractors who operate a Powered Industrial Truck in the scope of their job duties and assignments. When work is performed on a non-owned or operated site, the operator's program shall take precedence; however, this document covers UT Tyler employees and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent. **NOTE:** Only trained and certified operators, including supervisors, are allowed to operate forklifts and industrial trucks. UT Tyler shall certify all authorized employees regarding competency on all types of equipment.

**Definitions:**

Authorized Employee – A person, at least 18 years of age and who has completed UT Tyler's required safety training for the safe operations of forklifts.

Forklift (Powered Industrial Truck) – Any mechanical device used for the movement of supplies, material or finished product that is powered by an electric motor or an internal combustion engine.

**Key Responsibilities:****Manager/Supervisor**

Shall ensure that each powered forklift operator is competent to operate a forklift safely, as demonstrated by the successful completion of the training and evaluation program.

Shall ensure that all forklifts are inspected before each shift and all repairs are made before the forklift is operated.

## **Employees**

Shall be current on applicable training.

Operate forklift in accordance with the forklift standards and manufacturer requirements.

Inspect forklift at the start of shift and remove from service if defects are found until they are corrected.

Operate forklift in a safe manner.

## **Procedure:**

### **General**

All approved forklifts shall have a manufacturer's identification plate attached showing all specifications of the forklift and that the forklift is accepted by a nationally recognized testing laboratory.

Modifications and additions that affect capacity and safe operation shall not be performed without manufacturer's prior written approval. Capacity, operation and maintenance instruction plates, tags or decals shall be changed to reflect the modification or addition.

If the forklift is equipped with front-end attachments other than factory installed attachments, the supervisor shall ensure that the forklift is marked to identify the attachments and show the approximate weight of the forklift and attachment combination at maximum elevation with the load laterally centered.

The operator shall see that all nameplates and markings are in place and are maintained in a legible condition.

All forklifts shall be equipped with safety seat belts and fire extinguishers. All forklifts shall be equipped with a horn, backup alarm, beacon light, headlights and taillight.

### **Safety Guards**

Forklifts shall be fitted with an overhead rollover cage, as per the manufacturer's specifications.

If the type of load presents a hazard to the operator, the forklift shall be equipped with a vertical load backrest extension, as per the manufacturer's specifications.

### **Training**

Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape and written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee) and evaluation of the operator's performance in the workplace.

All operator training and evaluation shall be conducted by authorized persons who have the knowledge, documented training and experience to train powered industrial truck operators and evaluate their competence.

Selected employees who have been trained shall receive refresher training and be evaluated, at a minimum, every three years.

Training shall include the following topics, except in topics for locations where they are not applicable to safe operation of the truck due to type of equipment or facility conditions.

1. Operating instructions, warnings and precautions for the types of truck the operator will be authorized to operate
2. Differences between the truck and the automobile
3. Truck controls and instrumentation: where they are located, what they do and how they work
4. Engine or motor operation
5. Steering and maneuvering
6. Visibility (including restrictions due to loading) – use a spotter as required
7. Fork and attachment adaptation, operation and use limitations
8. Vehicle capacity
9. Vehicle stability
10. Any vehicle inspection and maintenance that the operator will be required to perform
11. Refueling and/or charging and recharging of batteries
12. Operating limitations
13. Any other operating instructions, warnings or precautions listed in the operator's manual for the types of vehicles that the employee is being trained to operate
14. Surface conditions where the vehicle will be operated
15. Composition of loads to be carried and loaded stability
16. Load manipulation, stacking and unstacking
17. Pedestrian traffic in areas where the vehicle will be operated
18. Narrow aisles and other restricted places where the vehicle will be operated
19. Hazardous (classified) locations where the vehicle will be operated
20. Ramps and other sloped surfaces that could affect the vehicle's stability
21. Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust
22. Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation
23. The requirements of CFR 1910.178 (Powered Industrial Trucks)

Retraining is required when an employee operates the equipment in an unsafe manner, there is an incident, or a different vehicle type is put in service or changes in conditions.

## **Certification**

The trainer shall certify in writing that each operator has been trained and evaluated as required.

The certification shall 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 and/or evaluation.

## **Operations**

### General

All operators shall wear a safety seat belt when operating a forklift.

Forklifts shall not be driven up to anyone standing in front of a bench or other fixed object.

No person shall be allowed to stand or pass under the elevated portion of any forklift, whether loaded or empty.

Unauthorized personnel shall not be permitted to operate forklifts.

No riders or passengers are permitted.

It is prohibited for arms or legs to be placed between the uprights of the mast or outside the running lines of the forklift.

When a forklift is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off and brakes set.

Wheels shall be blocked if the forklift is parked on an incline.

A forklift is unattended when the operator is 25 ft or more away from the vehicle, which remains in view, or whenever the operator leaves the forklift, and it is not in view.

When the operator of a forklift is dismounted and within 25 ft of the forklift still in view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.

A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock or platform or freight car.

Forklifts shall not be used for opening or closing freight doors.

Brakes shall be set, and wheel blocks shall be in place to prevent movement of trucks, trailers or railroad cars while loading or unloading.

Fixed jacks may be necessary to support a semi-trailer during loading or unloading when the trailer is not coupled to a tractor.

The flooring of trucks, trailers and railroad cars shall be checked for breaks and weakness before they are driven onto.

There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.

An overhead guard (cages) shall be used as protection against falling objects.

An overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.

Fire aisles, access to stairways and fire equipment shall be kept clear.

### Traveling

The operator 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 operator shall be required to travel with the load trailing.

The operator shall be required to look in the direction of and keep a clear view of the path of travel.

Grades shall be ascended or descended slowly.

When ascending or descending grades in excess of 10 percent, loaded forklifts shall be driven with the load upgrade.

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.

Under all travel conditions the forklift shall be operated at a speed that will permit it to be brought to a stop in a safe manner.

Stunt driving and horseplay are prohibited.

The operator shall slow down for wet and slippery floors.

Dock board or bridge plates shall be properly secured before they are driven over.

Dock board or bridge plates shall be driven over carefully and slowly, and their rated capacity never exceeded.

While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion.

Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

### Loading

Only stable or safely arranged loads shall be handled.

Caution shall be exercised when handling off-center loads, which cannot be centered.

Only loads within the rated capacity of the forklift shall be handled.

Forklifts equipped with attachments shall be operated as partially loaded forklifts when not handling a load.

A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.

Extreme care shall be used when tilting the load forward or backward, particularly when high tiering.

Tilting forward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack.

When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

### Operation of the Truck

If at any time a forklift is found to be in need of repair, defective or in any way unsafe, the forklift shall be taken out of service until it has been restored to a safe operating condition.

Fuel tanks shall not be filled while the engine is running.

Spillage of oil or fuel shall be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.

When fueling with Liquefied Petroleum Gas (LPG), proper precautions and handling requirements shall be followed.

No forklift shall be operated with a leak in the fuel system.

Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

Operator must verify trailer chocks, supports and dock plates are secured prior to loading/unloading.

### Maintenance of Forklifts

Only authorized personnel shall perform maintenance and make repairs.

Those repairs to the fuel and ignition systems of forklifts, which involve fire hazards, shall be conducted only in locations designated for such repairs.

Forklifts in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

Only parts equivalent with those used in the original design shall replace all parts of any forklift requiring replacement parts.

Forklifts shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts.

Additional counter weighting of fork trucks shall not be done unless approved by the truck manufacturer.

Forklifts shall be inspected before being placed in service and shall not be placed in service if the inspection shows any condition adversely affecting the safety of the forklift.

Inspection shall be made at least daily – prior to each shift. (Visual – non documented) Inspection items shall be posted on each forklift. Operators must ensure the vehicle is safe prior to operating.

Where forklifts are used on an around-the-clock basis, they shall be inspected before each shift.



Defects, when found, shall be immediately reported to the supervisor and corrected before operating the forklift.

When the temperature of any part of any forklift is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the forklift shall be removed from service and not returned to service until the cause for such overheating has been eliminated.

Forklifts shall be kept in a clean condition, free of lint, excess oil and grease.

Noncombustible agents, where at all possible, shall be used for cleaning trucks.

Low flash point (below 100 degrees F) solvents shall not be used.

High flash point (at or above 100 degrees F) solvents may be used if precautions regarding toxicity, ventilation and fire hazard are mitigated with the agent or solvent used.

### **Loading and Unloading of Trucks**

The following requirements are to be followed when performing loading/unloading tasks.

Hazard identification and assessment must be performed prior to any loading/unloading operation.

All personnel on foot are to be clear of the loading/unloading zone during operations.

Tiered loads are to be properly chocked as material is being removed.

Only when safe to do so, personnel securing loads are to apply proper body positioning techniques in order to avoid putting themselves at risk.

Loads are to be properly secured on fork trucks prior to moving.

The fork truck operator and spotter are to maintain line of sight contact.

Never load/unload a truck on an incline.

### **Class VII**

Rough terrain forklift is a generic term used to describe forklifts typically intended for use on unimproved natural terrain and disturbed terrain construction sites. However, the term "rough terrain" does not imply that the forklift can be safely operated on every conceivable type of terrain.

DOSH regulations require that the employer ensure that a forklift operator is competent to operate the forklift he or she is assigned to use. The employer must document operator training and an evaluation of the operator's performance while using the forklift.

Refresher training must be given if the operator has been involved in an accident, near miss or unsafe operations.

**Revisions:**

<b>Date</b>	<b>Author/Reviewer</b>	<b>Description/Reason for Change</b>
12/9/2021	T. Bay/P. Tate	New Policy
7/7/2023	T. Bay/K. Stapp	Update logo, date, & formatting.