

Chapter 15 – Use of Powered Industrial Trucks

Program Statement

The purpose of this chapter is to establish procedures for the safe operation of powered industrial trucks at the University of North Alabama (UNA).

This chapter supports compliance with the Occupational Safety and Health Administration Powered Industrial Truck Standard, as found in 29 CFR 1910.178. This chapter applies to all UNA employees, permanent or temporary, who are required to operate material-handling equipment, including forklifts and powered pallet jacks.

Definitions

- Authorized Operator: An employee who has satisfactorily completed:
 - Both classroom and hands-on training related to campus equipment.
 - The vision exam.
- Evaluation: The operator is observed by a qualified trainer while performing a series of tasks using the form in Attachment A titled *Evaluation of Performance Test for Forklift Operators*, or equivalent.
- Load Center: The horizontal distance from the edge of the load (or the vertical face of the forks or other attachment) to the load's center of gravity.
- Powered Industrial Truck - a mobile, power propelled truck used to carry, push, pull, lift, stack, or tier material; also known as a "fork lift" or "fork truck".
- Rated Capacity: The maximum weight that the powered industrial truck is designed to lift, as determined by the manufacturer.

Responsibilities

Powered Industrial Truck Operators:

- Operating all powered industrial trucks in a safe manner consistent with safe rules of operation.
- Inspecting powered industrial trucks at the beginning of each work shift/ensuring one has been completed, and completing the appropriate inspection form.
- Reporting all equipment malfunctions and/or maintenance needs to their supervisors immediately. Park lift in safe place, remove key, tag or note problem.

Training Requirements

- Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video tape, 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.
- Someone who is authorized, qualified and determined to be competent shall conduct all training.

- At least every 3 years after initial training, an evaluation of each authorized operator's performance shall be conducted.
- Training records "certification" shall include the name of the operator, the date of training, the date of evaluation, and the identity of the person(s) performing the training or evaluation.

Training Program Topics

Training shall include providing information on the following topics:

Truck-related topics:

- Operating instructions, warnings, and precautions for the types of truck the operator will be authorized to operate
- Differences between the truck and the automobile
- Truck controls and instrumentation: where they are located, what they do, and how they work
- Engine or motor operation
- Steering and maneuvering
- Visibility (including restrictions due to loading)
- Fork and attachment adaptation, operation, and use limitations
- Vehicle capacity and stability
- Any vehicle inspection and maintenance that the operator will be required to perform
- Refueling and/or charging and recharging of batteries;
- Operating limitations
- Any other operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate

Workplace-related topics:

- Surface conditions where the vehicle will be operated
- Composition of loads to be carried and load stability
- Load manipulation, stacking, and unstacking
- Pedestrian traffic in areas where the vehicle will be operated
- Narrow aisles and other restricted places where the vehicle will be operated
- Hazardous (classified) locations where the vehicle will be operated
- Ramps and other sloped surfaces that could affect the vehicle's stability
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation

Refresher Training Requirements

Refresher training, including an evaluation of the effectiveness of that training, shall be conducted to ensure that the operator has the knowledge and skills needed to operate the powered industrial truck safely.

Refresher training will be conducted when:

- The operator has been observed to operate the vehicle in an unsafe manner
- The operator has been involved in an accident or near-miss incident
- The operator has received an evaluation that reveals that the operator is not operating the truck safely
- The operator is assigned to drive a different type of truck
- A condition in the workplace changes in a manner that could affect safe operation of the truck

An evaluation of each powered industrial truck operator's performance shall be conducted at least once every three years. Employee training records shall be maintained for the length of employment.

Equipment Inspection and Maintenance

- Each powered industrial truck will be inspected before each shift. The inspection will be documented on the form found in Attachment B titled *Pre-Use Inspections*.
- If repairs are needed on a powered industrial truck such that it cannot be safely operated, it will be taken out of service until the repairs have been made.
- After repairs have been completed, the powered industrial truck will be given a performance test to ensure that the equipment is safe to operate.
- Powered industrial trucks will be kept in clean condition, free of dirt, excess oil and grease.
- Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

Changing and Charging Batteries

- Equipment will be provided to safely flush and neutralize spilled battery acid and electrolyte.
- Smoking is prohibited in all battery-charging areas.
- Eyewash equipment will be maintained in all charging areas.
- Precautions will be taken to prevent open flames, sparks and electric arcs in charging areas.
- Employees who change and service batteries and handle corrosive liquids will wear the proper Personal Protective Equipment (PPE). At a minimum, this includes safety glasses, a face shield, and acid-resistant gloves (not single-use nitrile gloves).

Safe Work Practices

- Only authorized, trained personnel shall operate lift trucks.
- Before start of shift, a visual inspection must be conducted. Employees shall not operate an unsafe forklift at any time.
- Operators shall drive with both hands on the steering wheel. Horseplay is prohibited. Do not drive with wet or greasy hands.
- No person shall ride as a passenger on a forklift or on the load being carried.
- A forklift will not be used to elevate a platform or pallet with persons on it, except work platforms especially designed for this purpose. Work platforms must have standard guard rails, and must be securely fastened to the forks.

- No person shall stand or walk under elevated forks.
- No person shall walk on forks, including when parked.
- Operators should avoid making jerky starts, quick turns, or sudden stops. The operator will not use reverse as a brake.
- Slow down on wet and slippery surfaces and at cross aisles or locations where vision is obstructed.
- Operators entering a building or nearing a blind corner shall make their approach at reduced speed. Check mirrors when available; sound horn and proceed carefully.
- Operators shall give pedestrians the right-of-way at all times.
- Operators shall not drive toward any person who is in front of a fixed object or wall. If assistance is being provided by another person, such as in backing up, the operator must ensure that they are not standing in the truck's path of travel.
- Operators shall not overtake and pass another forklift traveling in the same direction, at intersections, blind spots, or hazardous locations.
- Operators should not put their fingers, arms, or legs between the uprights of the mast, or beyond the contour of the forklift.
- Forks should always be placed under the load as far as possible. Do not lift a load with one fork.
- No load should be moved unless it is absolutely safe and secure.
- Use extra care when handling long lengths of bar stock, pipe, or other materials.
- Avoid sharp or fast end-swing.
- Compressed gas cylinders shall be moved only in special pallets designed for this purpose.
- Trucks shall not be used for opening or closing freight doors.
- When unloading trucks or trailers, the brakes on the vehicle will be set (locked) and the wheels chocked.
- Forklifts must be safely parked when not in use. The controls shall be neutralized, power shut off, brakes set, key removed, and the forks left in a down position flat on the surface, and not obstructing walkways or aisles.
- Only stable and safely arranged loads will be handled.
- Only loads within the rated capacity of the powered industrial truck will be handled.
- Unattended powered industrial truck: when the operator is 25 ft. or more away from the vehicle which remains in his/her view, or whenever the operator leaves the vehicle and it is not in his/her view.
- When a powered industrial truck 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 truck is parked on an incline.
- When the operator of an industrial truck is dismounted and within 25 ft. of the truck still in his/her view, the load engaging means shall be fully lowered, controls neutralized, and the brakes set to prevent movement.
- When vision is obscured, the operator will slow down and sound the horn.
- If the load blocks the operator's view, the powered industrial truck will be driven in the direction that provides the best visibility.
- The operator will keep a clear view of the path of travel.
- UNA speed limits will be observed, and under all travel conditions, a powered industrial truck will be operated at speeds that will permit it to be brought to a stop in a safe manner.

- Three truck lengths (or two seconds) will be maintained between powered industrial trucks in operation.
- The powered industrial truck will be kept under control at all times.
- The loaded powered industrial truck will be driven with the load upgrade when driving on ascending or descending grades greater than 10%.
- Dock boards and bridge plates will be properly secured before they are driven over.
- When the forklift is not carrying a load, the operator shall travel with the forks as low as possible (maximum of 3 inches on paved surfaces). When carrying a load, it should be carried as low as possible (consistent with safe operation, 2 to 6 inches above the surface.)
- The forks should not be operated while the forklift is traveling.
- On a downgrade, the load shall be last, and the forks raised only enough to clear the surface.
- On an upgrade, the load shall be first, and the forks raised only enough to clear the surface.

ATTACHMENT A

Evaluation of Performance Test for Forklift Operators

Evaluator (Print) _____ Date _____

Operator Name (Print) _____

INSTRUCTIONS: Evaluator will observe the forklift operator trainee perform typical tasks and document the evaluation on this form. Successful completion = 1; unsuccessful completion = 0. A score of 100 is required. If an operator does not score 100, the evaluation may be given again once in the same day. If they are not successful after 2 attempts, they must receive additional hands-on and/or classroom training (as the situation dictates). Hands-on training may be conducted by a qualified operator who has the knowledge, training, and experience of forklift operation. This Performance Test may be given again after the hands-on trainer reports that the trainee is ready for an Evaluation.

Completed Successfully = 1	Task
	1. Shows familiarity with truck controls.
	2. Gave proper signals when turning.
	3. Slowed down at intersections.
	4. Sounded horn at intersections.
	5. Obeyed signs.
	6. Kept a clear view of direction of travel.
	7. Turned corners correctly – was aware of rear end swing.
	8. Yielded to pedestrians.
	9. Drove under control and within proper traffic aisles.
	10. Approached load properly.
	11. Lifted load properly.
	12. Maneuvered properly.
	13. Traveled with load at proper height.
	14. Lowered load smoothly/slowly.
	15. Stops smoothly/completely.
	16. Load balanced properly.
	17. Forks under load all the way.
	18. Carried parts/stock in approved containers.
	19. Checked bridgeplates/ramps.
	20. Did place loads within marked area.
	21. Did stack loads evenly and neatly.
	22. Did drive backward when required.
	23. Did check load weights.
	24. Did place forks on the floor when parked, controls neutralized, brake on set, power off.
	25. Followed proper instructions for maintenance – checked both at beginning and end.
	26. Used seatbelt.
Total Rating	

Records Retention: Retain in employee’s department file for length of employment.

ATTACHMENT B

PRE-USE INSPECTION

Date: _____ Conducted By (print name): _____

INSTRUCTIONS: Driver must inspect lift before use each shift/verify one is complete for the shift by checking the seat pocket for presences of completed daily form. Completed inspection sheets will be given to the Supervisor at the end of the shift. Inspection Sheets will be reviewed periodically by the EHS Dept. Do not use lift if any element is not "ok". tag lift "out of service", report issue to Supervisor, and enter work request to correct.

<u>Engine-Off</u> Checks	OK	Maint. Req.
Leaks – Fuel, Hydraulic Oil, Engine Oil or Radiator Coolant		
Tires – Condition and Pressure		
Forks, Top Clip Retaining Pin and Heel – Check Condition		
Load Backrest – Securely Attached		
Hydraulic Hoses, Mast Chains, Cables and Stops – Check Visually		
Overhead Guard – Attached		
Finger Guards – Attached		
Propane Tank (LP Gas Truck) – Rust Corrosion, Damage		
Safety Warnings – Attached (Refer to Parts Manual for Location)		
Battery – Check Water/Electrolyte Level and Charge		
All Engine Belts – Check Visually		
Hydraulic Fluid Level – Check Level		
Engine Oil Level – Dipstick		
Transmission Fluid Level – Dipstick		
Engine Air Cleaner – Squeeze Rubber Dirt Trap or Check the Restriction Alarm (if equipped)		
Radiator Coolant – Check Level		
Operator's Manual – In seat back pouch.		
Nameplate – Attached and Information Matches Model, Serial Number and Attachments		
Seat Belt – Functioning Smoothly		
Hood Latch – Adjusted and Securely Fastened		
Brake Fluid – Check Level		
<u>Engine-On</u> Checks – Unusual Noises Must Be Investigated Immediately		
Accelerator or Direction Control Pedal – Functioning Smoothly		
Service Brake – Functioning Smoothly		
Parking Brake – Functioning Smoothly		
Steering Operation – Functioning Smoothly		
Drive Control – Forward/Reverse – Functioning Smoothly		
Tilt Control – Forward and Back – Functioning Smoothly		
Hoist and Lowering Control – Functioning Smoothly		
Attachment Control – Operation		
Horn and Lights – Functioning		
Gauges: Ammeter, Engine Oil Pressure, Hour Meter, Fuel Level, Temperature, Instrument Monitors – Functioning		

Retain completed form in EHS Central Files for 6 months.