Forklifts, or lift trucks, can be used to move, raise, lower, or remove large objects or a number of smaller objects on pallets or in boxes, crates, or other containers.

The hazards that coincide with powered industrial trucks will differ depending on the vehicle type and the workplace facility where the truck will be operated. Different trucks present different operational hazards. For example, a sit-down, counterbalanced high lift rider truck is more likely than a motorized hand truck to be involved in a falling load accident, because the sit-down rider truck can lift a load much higher than a hand truck. Workplace conditions also present different hazards. For example, retail establishments often face greater challenges in conservation of pedestrian safety.

OSHA requires that all forklifts be examined at least daily before being placed in service. Forklifts used on a round-the-clock basis must be examined after each shift. [29 CFR 1910.178(q)(7)]

There should be a pre-start check with the key off and an operational check while the engine is running by the forklift operator to ensure it is safe to use.

Remember! A vehicle that needs repair or is in any way unsafe, shouldn’t be driven and should be taken out of service to be repaired immediately. Any problems should be documented on the appropriate forms and reported to a supervisor.
**Pre-Start Inspection:**

Before starting your vehicle, a pre-start inspection could include the following (sourced from OSHA):

- Fluid levels – oil, water, and hydraulic fluid.
- Leaks, cracks or any other visible defect including hydraulic hoses and mast chains. NOTE: Operators should not place their hands inside the mast. Use a stick or other device to check chain tension.
- Tire condition and pressure including cuts and gouges.
- Condition of the forks, including the top clip retaining pin and heel.
- Load backrest extension.
- Finger guards.
- Safety decals and nameplates. Ensure all warning decals and plates are in place and legible. Check that information on the nameplate matches the model and serial numbers and attachments.
- Operator manual is on truck and legible.
- Operator compartment. Check for grease and debris.
- All safety devices are working properly including the seat belt.

In addition to these general guidelines, additional items should be checked based on the forklift type. See additional items [HERE].

**Operational Inspection:**

After the pre-operation inspection is completed, an operational inspection with the engine running should be completed. This inspection includes (sourced from OSHA):

- Accelerator linkage
- Inch control (if equipped)
- Brakes
- Steering
- Drive control: forward and reverse
- Tilt control: forward and back
- Hoist and lowering control
- Attachment control
- Horn
- Lights
- Back-up alarm (if equipped)
- Hour meter

NOTE: Unusual noises or vibrations should be reported immediately.

**Additional Information**

- Sample Daily Checklists for Powered Industrial Trucks. Note: Checklists are provided as a guide only and are not a substitute for complying with OSHA standards.

[Checklists for internal combustion and electric trucks](#)
[Checklists for various truck types and sample generic checklist](#)
Potential Hazards While Driving:

Be aware of potential hazards while driving, such as:

- Mechanical breakdown
- Fire
- Overheating
- Leakage

Requirements and Recommended Practices:

The OSHA powered industrial truck standard [29 CFR 1910.178] lists the different conditions under which a forklift is required to be removed from service. If the operator notices these conditions while driving, the operator must stop, park, and get assistance.

- Any powered industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel. [29 CFR 1910.178(q)(1)]
- Defects when found must be immediately reported and corrected. [29 CFR 1910.178(q)(7)]
- Any vehicle that emits hazardous sparks or flames from the exhaust system shall immediately be removed from service, and not returned to service until the cause for the emission of such sparks and flames has been eliminated. [29 CFR 1910.178(q)(8)]
- When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been eliminated. [29 CFR 1910.178(q)(9)]
- No truck shall be operated with a leak in the fuel system until the leak has been corrected. [29 CFR 1910.178(p)(4)]

Maintenance

Remember, scheduled maintenance is extremely important to ensure safe operation of your vehicle. Never operate a forklift that requires maintenance, and report repair problems to your supervisor immediately. Follow all of your company’s procedures.

Potential Hazards:

- Forklift skidding or sliding due to grease, leakage, spills.
- Mechanical breakdown due to poor maintenance.
- Accidents and injuries due to improperly working equipment.
Requirements and Recommended Practices:

- Never operate a vehicle that requires maintenance or is in any way unsafe. [29 CFR 1910.178(p)(1)]
- Remove from service any powered industrial truck not in safe operating condition. All repairs must be made by authorized personnel. Do not attempt to fix it yourself unless you are trained and authorized to do so. [29 CFR 1910.178(q)(1)]
- Perform preventive maintenance according to manufacturer’s scheduled recommendations.
- Keep industrial truck in clean condition, free of lint, excess oil, and grease. [29 CFR 1910.178(q)(10)]
- Use non-combustible agents for cleaning trucks.
- High flash point (at or above 100° F) solvents may be used. Do not use low flash point (below 100° F) solvents.
- Take recommended precautions regarding toxicity, ventilation and fire hazards.

*sourced from OSHA

TRAINING REQUIREMENTS

What does the OSHA standard require?

The standard requires employers to develop and implement a training program based on the general principles of safe truck operation, the types of vehicle(s) being used in the workplace, the hazards of the workplace created by the use of the vehicle(s), and the general safety requirements of the OSHA standard. Trained operators must know how to do the job properly and do it safely as demonstrated by workplace evaluation. Formal (lecture, video, etc.) and practical (demonstration and practical exercises) training must be provided. Employers must also certify that each operator has received the training and evaluate each operator at least once every three years. Prior to operating the truck in the workplace, the employer must evaluate the operator’s performance and determine the operator to be competent to operate a powered industrial truck safely. Refresher training is needed whenever an operator demonstrates a deficiency in the safe operation of the truck. 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. [29 CFR 1910.178(l)(2)(ii)].

*sourced from OSHA

For details about training and proper training materials to ensure your forklifts are operated properly, click [HERE].