Workplan: Forklifts – Warehouses



Forklift accidents are a leading source of fatal and serious work injuries; failure to ensure proper use of forklifts is also perennially among the Top 10 most frequent causes of OSHA and OHS citations. Here's a 12-step compliance plan to help you avoid both things.

Step 1: Ensure Forklifts Meet Design Standards

All new powered industrial trucks you acquire, and use must meet the design and construction requirements outlined in the *American National Standard for Powered Industrial Trucks and the Canadian Standard Association Safety Standard for Lift Trucks*. You're not allowed to make modifications and additions that affect the forklift's capacity and safe operation without the manufacturer's prior written approval. All forklifts must have legible nameplates and markings.

Useful Resources:

- Forklift Safety Checklists

Step 2: Ensure Forklifts Are Used Only in Locations Allowed for Designation

Know the different designations for industrial trucks (in general and specifically for those used at your site). These designations are based on how the forklift is powered, e.g., diesel, electrical, or gas. These designations are specific for which forklifts can be used in what type of location – depending on the atmospheric conditions in the location. For example, diesel-designated forklifts can't be used in work areas that contain significant concentrations of flammable or combustible gases.

Step 3: Ensure Forklifts Have Right Safety Guards

A load backrest extension must be used whenever necessary to minimize the possibility of the load or part of it from falling rearward. All loads handled by the forklift and the facility it operates within must meet one of the requirements below:

- All loads do not go higher than the top of the forks.
- All loads are one-piece, shrink-wrapped, banded, or crated.
- No loads in the facility are stacked or racked higher than the operator's head that does not meet the load requirements above.

- Forklifts with the load backrest removed must be restricted to:
    - Handling only loads meeting the requirements above; or
    - A specific area of the facility that does not contain any loads presenting a hazard.

Step 4: Ensure Forklift Fuel Is Safely Handled & Stored

Your methods of handling and storing liquid fuels such as gasoline or diesel fuel must meet for your forklift such as gasoline and diesel fuel must meet the National or Canadian Fire Safety Association Flammable and Combustible Liquids Code. Storage and handling of liquefied petroleum gas fuel must also meet NFPA/CFPA Storage and Handling of Liquefied Petroleum Gases. NFPA is for U.S.-based operations and CFPA is for Canadian-based operations. The CFPA is modeled after the NFPA.

Step 5: Ensure Safe Methods Used to Change & Store Forklift Batteries

There are detailed rules to ensure safe charging, charging, and storage of batteries used to power forklifts, including the requirement that you ban smoking in battery charging areas and keep tools and other metal objects away from the top of uncovered batteries.

Useful Resources:

- Emergency Procedures for Lead-Acid Batteries
- Lead-Acid Batteries Safety Talk

Step 6: Ensure Forklift Operating Areas Are Well Lit

Operating areas must be properly illuminated, and auxiliary directional lighting must be provided on the forklift where general lighting is less than 2 lumens per square foot.

Step 7: Keep Forklift Noxious Gas & Fume Emissions below Required Levels

Concentration levels of carbon monoxide gas and other toxic substances generated by powered industrial truck operations may not exceed regulated levels. Check with federal, state, and jurisdictional requirements.

Step 8: Ensure Forklift Dockboards Meet Safety Standards

Dock boards (or bridge plates that forklifts ride over to get to higher or lower surfaces) must be strong enough to carry the expected load. Portable dock boards must be anchored or have devices that prevent slipping and have handholds or other effective means to permit safe handling.

Step 9: Ensure Only Competent Persons Operate Forklifts

Forklifts are only to be operated by those trained to operate a powered industrial truck, as demonstrated by successfully completing the training and evaluation requirements. Forklift training involves instructional training and a skills test. Training should happen:

- Initially and every 3 years after. In some cases, a re-evaluation of skills is required after 18 months.
- When new equipment is introduced into the workplace;

- When the operating conditions and environment have changed;
- When applicable legislation changes; or
- When skill or knowledge deficiencies are identified.

Step 10: Ensure Forklifts Are Operated Safely

The ANSI and CSA standards layout detailed requirements to ensure the safe use of forklifts, including how they're parked, mounted and dismounted. They also include a separate section on "traveling" establishing traffic rules, e.g., forklifts must keep at least 3 truck lengths from the vehicle ahead.

Useful Resources:

- Forklift Safety

Step 11: Ensure Forklifts Are Safely Loaded

Tilting and tipping of loads is a leading cause of forklift accidents. The Standard sets out detailed loading and unloading requirements to ensure that loads are stable and prevent such accidents.

Useful Resources:

- Forklift Loading Safety

Step 12: Ensure Forklifts Are Properly Maintained & Inspected

Forklifts must be inspected at least daily and removed from service if any dangerous defect is found. The Standard explains when and how inspections should be conducted and repairs effected.