Forklift Training - General

Overview

❖ Only trained and evaluated operators can drive forklifts

❖ Employer certifies successful completion of training and evaluation

Overview

❖ Operators can only drive the types of forklifts on which they have been trained

Overview

- ❖ Operating a forklift takes:
  - ▶ Skill
  - ▶ Mechanical knowledge
  - ▶ Knowledge of workplace hazards

Overview

❖ Take forklift out of service if defective

Forklift rules

- Don't stand or pass under raised forks

- Only handle stable, safely arranged loads

- Only handle loads within truck's rated capacity

Forklift rules

❖ Place forks under load as far as possible

❖ Only tilt load forward while depositing it

❖ High-lift rider trucks need overhead guards to protect operator

Forklift rules

❖ Use a safety platform to lift people

❖ Forklifts must be approved for hazardous locations

❖ Watch where you are going

Forklift rules

- ❖ Never drive up to anyone standing in front of a fixed object

- ❖ Allow no riders

- ❖ Keep arms, legs in truck

Forklift rules

❖ Keep the load close to the ground

❖ Keep to the right

❖ Obey speed limits

Forklift rules

❖ Slow down, sound horn where vision is obstructed

❖ Maintain safe distances (3 truck lengths) when following other trucks

❖ Do not pass a truck at dangerous locations

Forklift rules

❖ No stunt driving or horseplay

❖ Ensure enough clearance at overhead locations

❖ Stay within loaded/rated capacity

Forklift rules

❖ Use mechanical dock locks or set brakes of highway trucks before driving on trailer.

❖ Follow any special precautions

Forklift rules

❖ Keep aisles free when parking forklift

❖ Lower forks, neutralize controls, shut off engine, and set brakes when truck is unattended.

Training geared for the workplace

- ❖ Types of trucks

- ❖ Site-specific information

Training topics

- ❖ Operating instructions, warnings, precautions

- ❖ Differences between trucks and automobiles

- ❖ Truck controls, instrumentation

Training topics

- ❖ Engine and motor operation

- ❖ Steering and maneuverability

- ❖ Visibility

Training topics

- ❖ Fork and attachment adaptation, operation, use limitations

- ❖ Vehicle capacity, stability

- ❖ Inspection and maintenance

Training topics

- ❖ Refueling/recharging

- ❖ Operating limitations

- ❖ Other instructions

Workplace-related training topics

- ❖ Surface conditions

- ❖ Composition of loads

- ❖ Load manipulation

Workplace-related training topics

❖ Pedestrian traffic

❖ Narrow aisles, restricted areas

❖ Hazardous locations

© J. J. Keller & Associates, Inc.

Workplace-related training topics

❖ Ramps, sloped surfaces

❖ Closed environments

❖ Unique, potentially hazardous environments

Differences between trucks and automobiles

- ❖ Driver has limited visibility

- ❖ Rear-wheel steering

- ❖ Different centers of gravity

Differences between trucks and automobiles

❖ Controls are different

❖ Industrial trucks carry heavier loads
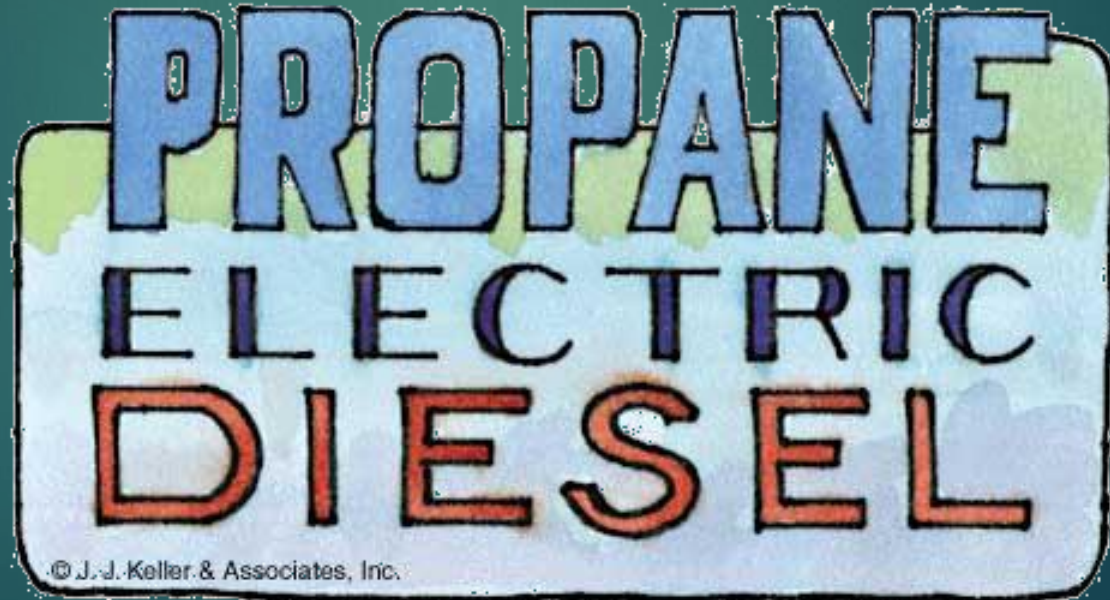
Controls and instrumentation

❖ Critical to safe operation

❖ Unintentional, mistaken operation can cause serious accidents

❖ Know where controls are located, what they do, how they work

Engine and motor operation

❖ Powered by gasoline, LP gas, propane, or battery

© J. J. Keller & Associates, Inc.

Engine and motor operation

❖ Knowing how a truck is powered helps to understand the truck's capabilities, limitations

Steering and maneuvering

❖ Rear-end steering

❖ Many trucks do not have a standard steering wheel

Steering and maneuvering

❖ Operator may need to steer in reverse

❖ Operator may need to steer with one hand

❖ Understand the controls for the type of truck you're operating

Operator visibility

- Loads can restrict vision

- Look in the direction you're traveling

- Watch for overhead obstacles

Operator visibility

❖ Ensure adequate clearance

❖ Check blind spots to side and rear

Forks

- ❖ Trucks can be equipped or modified to accept attachments for moving odd-shaped loads

- ❖ Additions/modifications may affect stability, safe operation

Forks

- ❖ Attachments can cause restrictions/limitations to operation

- ❖ Operate trucks with attachments as being partially loaded

Vehicle capacity

- ❖ Only handle loads within truck's rated capacity

- ❖ Capacity is found on nameplate

© J. J. Keller & Associates, Inc.

Vehicle capacity

❖ Understand limitations for:

▶ how much weight can be handled

▶ how high the load can be raised

▶ how far the load's center of gravity can be from truck's vertical load rest

Vehicle stability

- ❖ Center of gravity shifts when load is raised

- ❖ Truck is less stable with raised load

- ❖ Moving an unstable truck can result in tipover

Vehicle stability

❖ During a tipover:

- ▶ Stay with vehicle and lean away from direction of fall

- ▶ Don't jump downward while truck is tipping

❖ Keep load at lowest practical point

Inspection and maintenance

❖ Follow procedures and schedules

❖ Keeps forklifts operating safely

❖ Inspect for damage, defects, unusual conditions

Inspection and maintenance

❖ Perform safety checks before operation

  ▶ Fork pins and stops

  ▶ Cowling and body parts

  ▶ Fuel levels

  ▶ Belts, hoses, tires

Inspection and maintenance

❖ Perform safety checks before operation

  ▶ Brakes, steering, controls, hour meter, lights, horn

  ▶ Remove unsafe trucks from service

  ▶ Repairs must be made by authorized person

Inspection and maintenance

❖ Perform safety checks before operation

  ▶ Remove vehicles from service that emit sparks

  ▶ Don't operate trucks with fuel leaks

Inspection and maintenance

❖ Perform safety checks before operation

  ▶ Remove trucks from service that operate in excess of normal operating temperature

  ▶ Check water mufflers daily

Fueling/charging of batteries

❖ Exposes workers to hazardous chemicals

❖ Involves electrical hazards, heat build-up, generation of gas

❖ Be aware of all hazards involving fueling and battery handling

Fueling/charging of batteries

- ❖ Keep flames, sparks, arcs from fueling areas

- ❖ Smoking is not allowed in fueling/charging areas

- ❖ Keep tools and metallic objects from top of uncovered batteries

Provide operators with the information they need

- ❖ Operating instructions

- ❖ Warnings

- ❖ Precautions

Truck-specific information

❖ Limitations

❖ Operator's manual

Workplace-specific information

- Loads handled

- Pedestrian traffic

- Traffic routes

- Unique hazards of the facility

Retraining/re-evaluation

❖ Triggered by certain events:

- ▶ Accidents

- ▶ Near-misses

- ▶ Assignment to different type of truck

- ▶ Changes in work environment

- ▶ Observation of unsafe operation

Retraining/re-evaluation

❖ Evaluate at least every 3 years

❖ Avoid duplication of training