



SCOR

SAFETY COMPLIANCE FOR OSHA REGULATIONS

A Cottingham & Butler Program

Powered Industrial Truck (PIT) Safety



Ryan Howell

Occupational Safety & Health Consultant

rhowell@smscsafety.com

POWERED INDUSTRIAL TRUCK (PIT) - DEFINITION

“fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines”

Excluded are vehicles used for earthmoving and over-the-road hauling



POWERED INDUSTRIAL TRUCK (PIT) – MODIFICATIONS

Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturer's prior written approval. Capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.

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

POWERED INDUSTRIAL TRUCK (PIT) – TRAILERS

The brakes of highway trucks shall be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.

Fixed jacks may be necessary to support a semitrailer and prevent upending during the loading or unloading when the trailer is not coupled to a tractor.

POLL QUESTION #1

How often should powered industrial truck inspections be conducted?

- A. At the beginning of the first shift for the day
- B. Before every use
- C. At the beginning of each shift it is used
- D. When time is available

POWERED INDUSTRIAL TRUCK (PIT) – INSPECTIONS

Industrial trucks shall be examined before being placed in service, and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Where industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

TRAINING PROGRAM IMPLEMENTATION

Training and evaluation shall be conducted by a person with the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence

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.



TRAINING PROGRAM CONTENT

Truck-related topics

- Operating instructions, warnings, and precautions
- Differences from automobile
- Controls and instrumentation
- Engine or motor operation
- Steering and maneuvering
- Visibility
- Fork and attachment adaptation, operation, use
- Vehicle capacity and stability
- Vehicle inspection and maintenance that the operator will be required to perform
- Refueling/charging/recharging batteries
- Operating limitations
- Other instructions, etc.

TRAINING PROGRAM CONTENT

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
- The requirements of the OSHA standard

POLL QUESTION #2

When is refresher training required?

- A. After an accident or incident
- B. When new or different equipment is introduced
- C. Every 3 calendar years from initial training date
- D. Unsafe operation is witness
- E. All of the above

REFRESHER TRAINING AND EVALUATION

Occurrences that require refresher training include:

- Unsafe operation
- Accident or near-miss
- Evaluation indicates need
- Different type of equipment introduced
- Workplace condition changes

REFRESHER TRAINING AND EVALUATION

An evaluation of each powered industrial truck operator's performance must be conducted:

- After initial training, and
- At least once every three years

CERTIFICATION

The employer shall certify that each operator has been trained and evaluated as required by the standard.

Certification shall include:

- Name of operator
- Date of training
- Date of evaluation
- Identity of person(s) performing the training or evaluation



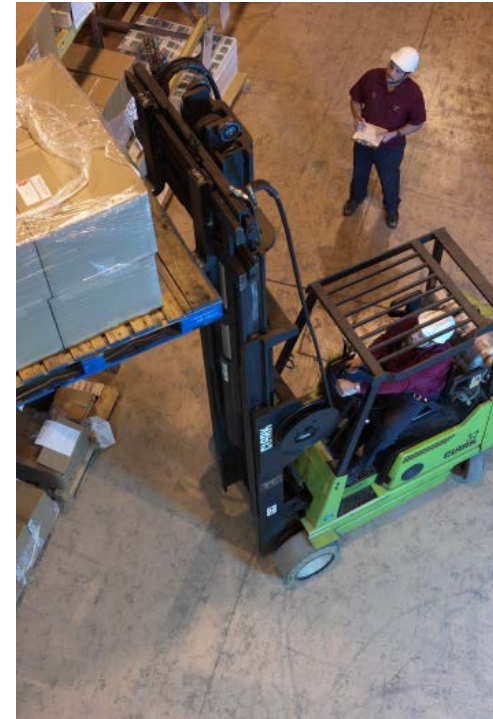
FORKLIFT TRAINING





FORKLIFT RULES

- Don't stand or pass under raised forks
- Only handle stable loads within truck's rated capacity
- Seat load as close to mast as possible





FORKLIFT RULES



- Use a safety platform to lift people
- Only use approved trucks in hazardous locations
- Look in direction of travel



FORKLIFT RULES

- Don't drive up to anyone in front of a fixed object
- Allow no riders
- Keep arms and legs in truck
- Wear seat belt





FORKLIFT RULES

- Keep the load close to the ground
- Obey speed limits
 - “Under all travel conditions the truck shall be operated at a speed that will permit it to be brought to a stop in a safe manner.”
- Forklift speed and performance can be modified (contact your supplier)





FORKLIFT RULES

- Slow down, sound horn at intersections
- Maintain safe following distances, clearance
- No stunt driving, horseplay



POLL QUESTION #3

When loading and unloading trailers, what is required?

- A. Trailer chocks
- B. Trailer jack or truck attached to trailer with truck turned off
- C. Both A and B
- D. Neither A nor B



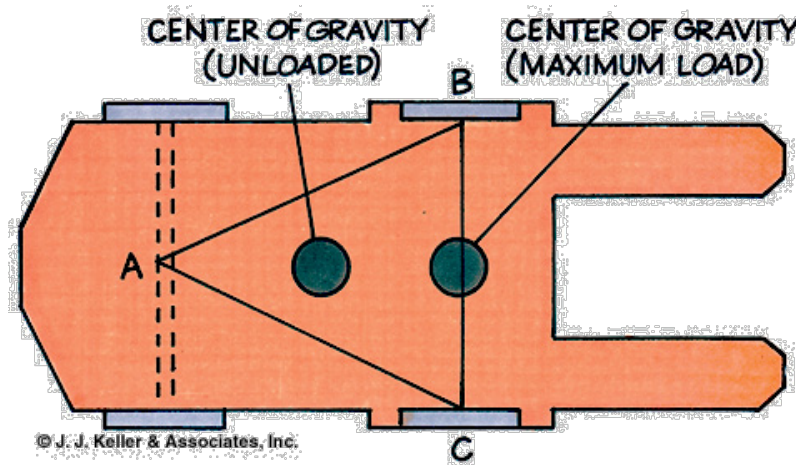
FORKLIFT RULES

- Secure truck trailers before entering
- Glad-hand locks are best practice
- Lower forks, neutralize controls, shut off engine, and set brakes when truck is unattended
- Attended = within 25 feet and within operators view



FORKLIFTS VS. AUTOMOBILES

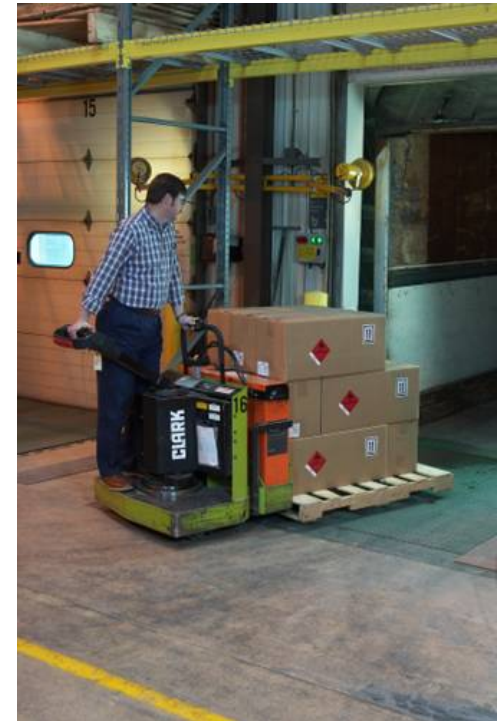
- Rear-wheel steering (out-swing)
- Different centers of gravity
- Different controls
- Average forklift weighs as much as 2 or 3 automobiles





STEERING AND MANEUVERING

- Rear-end steering
- No standard steering wheel
- Often drive in reverse
- Powered pallet jacks can weigh more than 6,000 lbs





OPERATOR VISIBILITY

- Loads can restrict vision
- Look in the direction of travel
- Check blind spots





FORKS

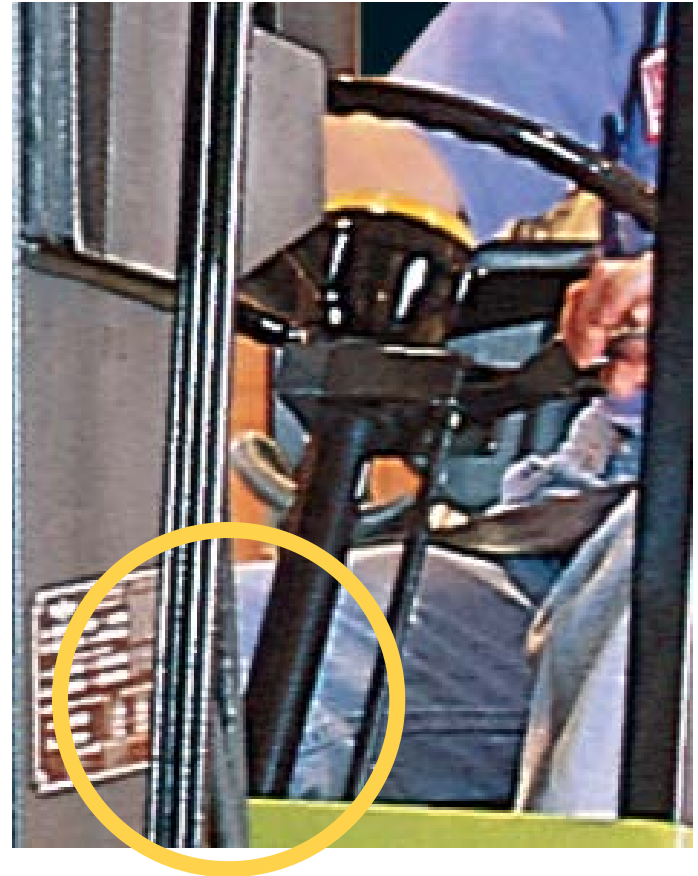
- Additions, modifications may affect stability, safe operation
- Attachments can restrict/limit operation
- Training must be specific to attachments





VEHICLE CAPACITY

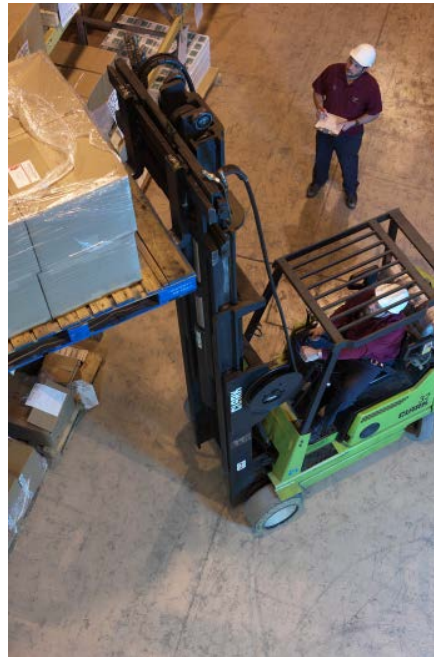
- Only handle loads within truck's rated capacity
- Capacity is found on nameplate





VEHICLE STABILITY

- Center of gravity shifts as load is raised
- Truck is much less stable with raised load





VEHICLE STABILITY

- During a tip-over, stay with vehicle, lean away from direction of fall
- Don't jump as truck tips





INSPECTION AND MAINTENANCE

- Follow procedures, schedules
- Pre-operation safety checks
- Required daily and/or at beginning of shifts





INSPECTION AND MAINTENANCE

- Damage, defects, unusual conditions
- Remove unsafe trucks from service
- Repaired by authorized personnel only



FUELING/CHARGING OF BATTERIES

Exposes workers to hazards

- Acid
- Hydrogen Gas
- Propane
- PPE required



POLL QUESTION #4

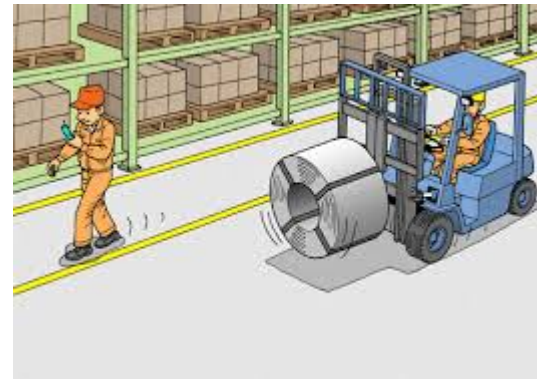
Do you conduct Pedestrian Safety in your workplace?

A. Yes

B. No

PEDESTRIAN SAFETY

- All employees should be trained on forklift hazards and precautions
- Use designated walkways
- Designated forklift paths
- Curbs or stops to deny forklift access



PEDESTRIAN SAFETY

- Protective footwear
- Back-up alarms



FORKLIFT MANAGEMENT

Many forklifts can be modified to:

- Monitor impacts and speed
- Shut off after impact, requiring supervisor restart
- Slow top speed
- Slow takeoff
- Track movement



SUMMARY

- OSHA estimates about 85 fatalities and 34,000 serious injuries occur annually due to forklifts
- Employers are required to ensure operators are properly trained and evaluated
- Forklifts must be inspected prior to use
- Many engineered and training solutions to improve forklift safety
- It is the employer's responsibility to provide a safe workplace - make forklift safety a priority!



Questions?

rhowell@smscsafety.com



C&B Risk Management Center

Patricia Mackey

Administrative Assistant

pmackey@smscsafety.com

Cottingham & Butler

Risk Management Center
General Industry

Cottingham & Butler