

# Powered Industrial Trucks



**Andrew Palhof**  
Compliance Assistance Specialist  
Concord Area Office

**Jim Linsley**  
Corporate Trainer  
Alta Material Handling



**Occupational  
Safety and Health  
Administration**

# Disclaimer

This information has been developed by an OSHA Compliance Assistance Specialist and is intended to assist employers, workers, and others improve workplace health and safety. While we attempt to thoroughly address specific topics [or hazards], it is not possible to include discussion of everything necessary to ensure a healthy and safe working environment in this presentation. This information is a tool for addressing workplace hazards and is not an exhaustive statement of an employer's legal obligations, which are defined by statute, regulations, and standards. This document does not have the force and effect of law and is not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies. It does not create (or diminish) legal obligations under the Occupational Safety and Health Act. Finally, OSHA may modify rules and related interpretations in light of new technology, information, or circumstances; to keep apprised of such developments, or to review information on a wide range of occupational safety and health topics, you can visit OSHA's website at [www.osha.gov](http://www.osha.gov).

# OSHA's FY 2022 Agency Management Plan

2-2	Establish 3 Alliances and/or OSHA Strategic Partnerships with <b>warehousing companies</b> or trade associations to improve safety and health for workers in the industry.	
2-3	Develop an enforcement initiative focusing on targeting inspections and abatement of the hazards in the <b>package and parcel delivery industries</b> .	
3-5	OSHA will support a “ <b>Struck-By</b> ” Safety Summit.	
3-9	OSHA will develop a National Emphasis Program (NEP) focusing on preventing <b>heat-related illnesses and deaths</b> across major industry sectors, including general industry, construction, and agriculture.	
3-12	During FY 2022, OSHA is recommitting resources to target establishments and industries that use high numbers of temporary workers by reissuing the April 2013 memorandum, Protecting the Safety and Health of <b>Temporary Workers</b> . The revised memorandum will include additional instruction regarding inspections involving temporary workers at host sites including coding and compliance assistance.	

# Warehousing and Distribution Centers National Emphasis Program

- Warehousing and distribution centers have experienced growth within the past ten years.
- From January 2011 to December 2021, the warehousing and distribution centers industry experienced a surge in employment, increasing respectively from 668,900 employed to a total 1,713,900 employed (seasonally adjusted).



# Common Language

- Powered Industrial Trucks
- Powered Industrial Lifts
- PIT's
- Forklifts
- Forktrucks



# OSHA REGIONAL INSTRUCTION

U.S. DEPARTMENT OF LABOR

Occupational Safety and Health Administration

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DIRECTIVE NUMBER: CPL-04-00-023G

EFFECTIVE DATE: October 1, 2019

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SUBJECT: Local Emphasis Program for Powered Industrial Trucks

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Industrial trucks acquired after Feb. 15, 1972 must meet the design requirements in "American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1-1969" & 29 CFR 1910.178 (a) (2)

# Powered Industrial Truck Definition

**A mobile, power-propelled truck used to carry, push, pull, lift, stack or tier materials.**





<https://www.youtube.com/watch?v=KkYmDZ15wfE>



# Definition

Powered industrial trucks are used to move, raise, lower, or remove large objects or a number of smaller objects on pallets or in boxes, crates, or other containers.

OSHA Standard 1910.178 Powered Industrial Trucks, contains requirements related to fire protection, design, maintenance, and use of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks.

ASME B56.1-1969, Safety Standard for Low Lift and High Lift Trucks, which is incorporated by reference in 1910.178, defines powered industrial trucks as “mobile, power propelled trucks used to carry push, pull, lift, stack, or tier material.”

# Excluded

*Vehicles used or intended for earth moving and over-the-road hauling.*

*Example-  
Loader with a fork  
attachment.*

**1926.21(b)(2) - General Training**



# These are not powered industrial trucks



Non-powered pallet jack



Farm vehicles



Self-propelled elevated work platform



Earth-moving vehicle



Bobcat skid steer with forks

# Manual Lifting Devices

Covered or not covered?

What standard applies?

How should you treat it?



# OPERATOR INSTRUCTIONS

## OVERVIEW

The following instructions specify the proper operation procedure and basic functions of this high lift truck.

## OWNER/OPERATOR RESPONSIBILITY

Like other vehicles, manually propelled high lift industrial trucks can cause injury if improperly used or maintained.

The owner and/or operator shall study the product instructions and retain them for future reference. Read and comply with all labeling on the lift truck.

Only authorized personnel shall be permitted to operate a manually propelled high lift industrial truck. Operators of manually propelled high lift industrial trucks shall be qualified as to visual, auditory, physical, and mental ability to operate the equipment safely.

The user shall ensure that the operators understand that safe operation is the operators responsibility. The user shall also ensure that operators are knowledgeable of, and observe, the safety rules.

An effective operator training program should center around user company's policies, operating conditions, and trucks. The program should be presented completely to all new operators and not condensed for those claiming previous experience.

Modifications and additions that affect capacity or safe operation shall not be performed.

The user shall see that all nameplates, caution, and instruction markings are in place and legible.

The user shall consider that changes in load dimension may affect truck capacity.

Experience has shown that manually propelled high lift industrial trucks are stable when properly operated. However, improper operation, faulty maintenance, or poor housekeeping may contribute to a condition of instability. Some conditions that may affect stability are: surface and floor conditions, grade, speed, load position, attachments (trucks with attachments behave as partially loaded trucks even when operated without a load on the attachment), dynamic and static forces, and the judgment exercised by the operator.

Safety guards are intended to offer protection to the operator from moving parts but cannot protect against every possible condition. Therefore, they should not be considered a substitute for good judgment.

Good judgment and care shall be exercised in handling of loads extending above the mast.

Controlled lighting of adequate intensity should be provided in operating areas.

Areas of use for manually propelled high lift trucks shall be smooth and level: free from gaps, floor drains, etc.

The floors shall be maintained to keep them free of debris and liquids which hinder safe operation of the truck.

# Forklift Operating Manual

Since there are numerous makes, models and types of forklifts, it is important to check for warnings in the specific forklift operator's manual.

The manual should be kept on the forklift at all times.



# What industries are covered by the LEP?

- OSHA standards apply to both General Industry, Construction and Shipyards.
- If PIT's are used at a jobsite, Compliance Officers shall expand the inspection.
- Area offices will conduct inspections for all complaints which contain allegations of powered industrial truck hazards.

PIT's in construction account for 25 percent of the accidents.





# Reasons for the Standard

Powered industrial truck accidents in General Industry and Construction cause approximately;

- Estimated 1.5 million workers in the US that operate PIT's
- 85 fatalities
- 34,900 serious injuries
- It is estimated that 20 - 25% of the accidents are caused by inadequate training.

# Leading Causes of Forklift Fatalities;

- Forklift overturns
- Struck by
- Crushed or pinned by a forklift
- Falls from a forklift.

Poor truck maintenance also contribute to accidents from brake failure, ruptured hydraulic lines and exposure to carbon monoxide.

# Safe Operation of Powered Industrial Trucks

The following topics will be covered:

Forklift-related fatalities and injuries

Types of forklifts

How a forklift operates

Hazards of forklift operation

How to use forklifts safely

Common Mishaps



# The risk of ignoring forklift safety

Forklifts are extremely useful in a variety of workplaces, but there is great risk of property damage, injury or death if you:

- Are not trained on forklift safety
- Are not familiar with the specific forklift vehicle
- Operate the forklift in an unsafe manner
- Operate a forklift with a defect or missing parts



# The Most Common Citations

- Lack of training / Refresher training
- No seatbelt or not using seatbelt
- No inspection of the forklift for defects
- Modification of forklift without manufacturer's approval
- No nameplate or unreadable nameplate

# Performance-Oriented Requirements

- The powered industrial truck operator training requirements are performance-oriented.
- Allows employers to tailor a training program to the workplace and the particular types of powered industrial trucks operated.

# Effective Powered Industrial Truck Operator Training Program

- **Four major areas of concern must be addressed:**
  - The general hazards that apply to the operation of all or most powered industrial trucks;
  - The hazards associated with the operation of particular types of trucks;
  - The hazards of workplaces generally; and,
  - The hazards of the particular workplace where the vehicle operates.

# Training Program Implementation

(continued)

- Training shall consist of a combination of:
  - Formal instruction (e.g., lecture, discussion, interactive computer learning, written material),
  - Practical training (demonstrations and exercises performed by the trainee), and
  - Evaluation of the operator's performance in the workplace



You must also have hands-on training on the specific truck you will be operating

Controls and handling are different



# Forklift Nameplate

The nameplate will list the type of forklift and the capacity

**WARNING** IMPROPER OPERATION OR MAINTENANCE  
COULD RESULT IN INJURY OR DEATH.

MODEL [REDACTED] SERIAL No. 3171001000

TYPE **LP** TRUCK WT. **8680** lbs

CAPACITY OF STANDARD TRUCK WITH SIMPLEX MAST  
AND FORKS: **4500** lbs AT 24 IN. LOAD CENTER WITH  
MAXIMUM HEIGHT OF 130 IN. RATED CAPACITY WITH  
OPTIONAL MAST AND/OR ATTACHMENT LISTED BELOW.

MAST: VERTICAL

	A	B	FORKS ONLY	ATTACH.
24 in.				
	<b>156</b>	24		<b>4500</b>

ATTCH/MODEL **SideShift**

MEETS DESIGN SPECS ANSI B56.1

Type → Weight → Load capacity

OSHA

This forklift is a propane (LP) powered forklift, weighing 8680 lbs. with a lifting capacity of up to 4500 lbs.

# Operator Training

The employer shall ensure that each powered industrial truck operator is “Competent” to operate a powered industrial truck safely.

Prior to permitting an employee to operate a powered industrial truck, the employer shall ensure that each operator has successfully completed the required training

# Unique Characteristics of Powered Industrial Trucks

- Each type of powered industrial truck has its own unique characteristics and some inherent hazards.
- To be effective, training must address the unique characteristics of the type of vehicle the employee is being trained to operate.

# Training Program Implementation

- Trainees may operate a powered industrial truck only:
  - Under direct supervision of a person who has the knowledge, training, and experience to train operators and evaluate their competence; and,
  - Where such operation does not endanger the trainee or other employees.

# Training Program Implementation

## (continued)

**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 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 (continued)

- Surface conditions
- Composition and stability of loads
- Load manipulation, stacking, unstacking
- Pedestrian traffic
- Narrow aisles and restricted areas
- Operating in hazardous (classified) locations
- Operating on ramps and sloped surfaces
- Potentially hazardous environmental conditions
- Operating in closed environments or other areas where poor ventilation or maintenance could cause carbon monoxide or diesel exhaust buildup



# Loading truck trailers and railroad cars

**Make sure:**

truck trailer wheels are chocked,

dock board is secure and can handle weight,

you use horn or warning lights when exiting trailer or railcar.



# Don't leave your forklift unattended

A forklift is considered "unattended" when the operator is 25 ft. or more away from the vehicle even if it remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

When a forklift is left unattended, forks must be fully lowered, controls neutralized, power shut off, and brakes set. Wheels must be blocked if the truck is parked on an incline.

Wisconsin Dept of Health Services



Where's the operator??

When the operator of a forklift is within 25 ft. of the truck still in his view, the load engaging means must be fully lowered, controls neutralized, and the brakes set to prevent movement, but the power does not need to be shut off.

# Refresher Training and Evaluation

- Refresher training shall be conducted to ensure that the operators have the knowledge and skills needed to operate the powered industrial truck safely.
- Refresher training required when:
  - Unsafe operation
  - Accident or near-miss
  - Evaluation indicates need
  - Different type of equipment introduced
  - Workplace condition changes

# Refresher Training and Evaluation (continued)

- An evaluation of each powered industrial truck operator's performance must be conducted:
  - After initial training,
  - After refresher 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

Jim Linsley  
Forklift Trainer  
Alta Material Handling  
(Formerly NITCO)

# How is a forklift different from a car or truck?

Usually steers from the rear, rather than the front, making it swing wide

Carries heavy loads, often in tight places and rough terrain

Can have reduced visibility

Can have a high center of gravity making it susceptible to turnover

Controls are different and more complicated

Heavier than most cars and trucks



This.....

.....Doesn't operate like these.

# Forklifts have reduced visibility

Both the forklift mast and a large load on the forks reduce forward visibility.



Older mast design



Newer mast design



In warehouses or other indoor workplaces, aisles of material, walls, doors and other building configurations can create blind corners.



# Forklift Blind Spot



Blind spot

# Forklifts and Pedestrians

Slow down and sound horn at intersections, corners, and wherever your vision is obstructed.

When provided, use flashing warning light or backup alarms when traveling in reverse.

Always look in the direction of travel.

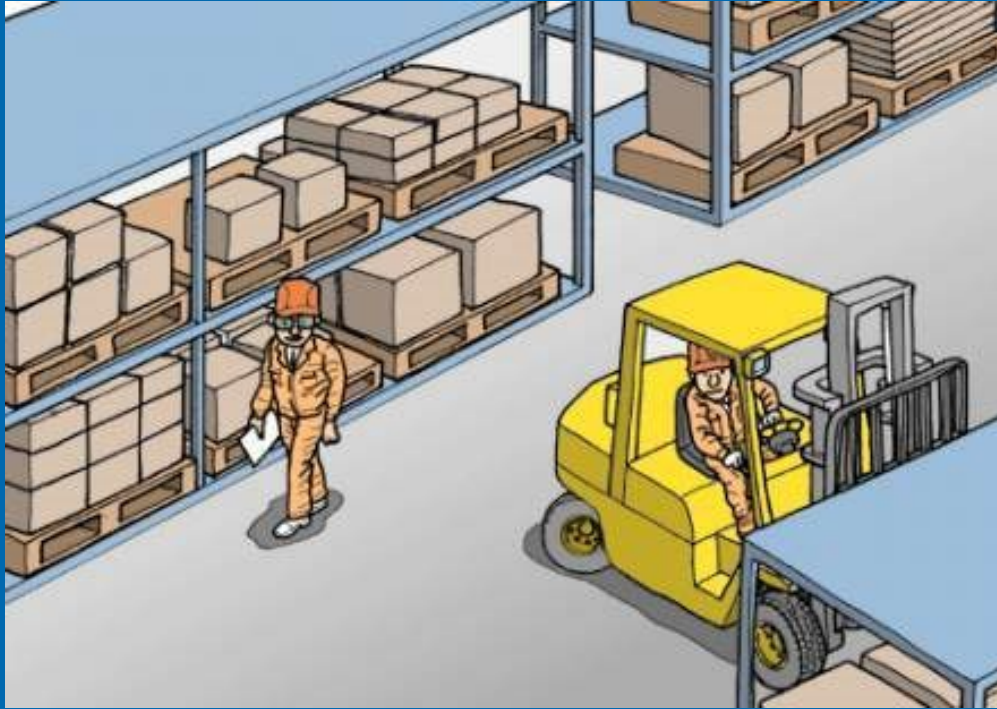
Signal to pedestrians to stand clear.

Do not allow anyone to stand or walk under upraised forks.

When possible, make eye contact with pedestrians or other forklift operators before moving in their path.



# Forklift-pedestrian accident example

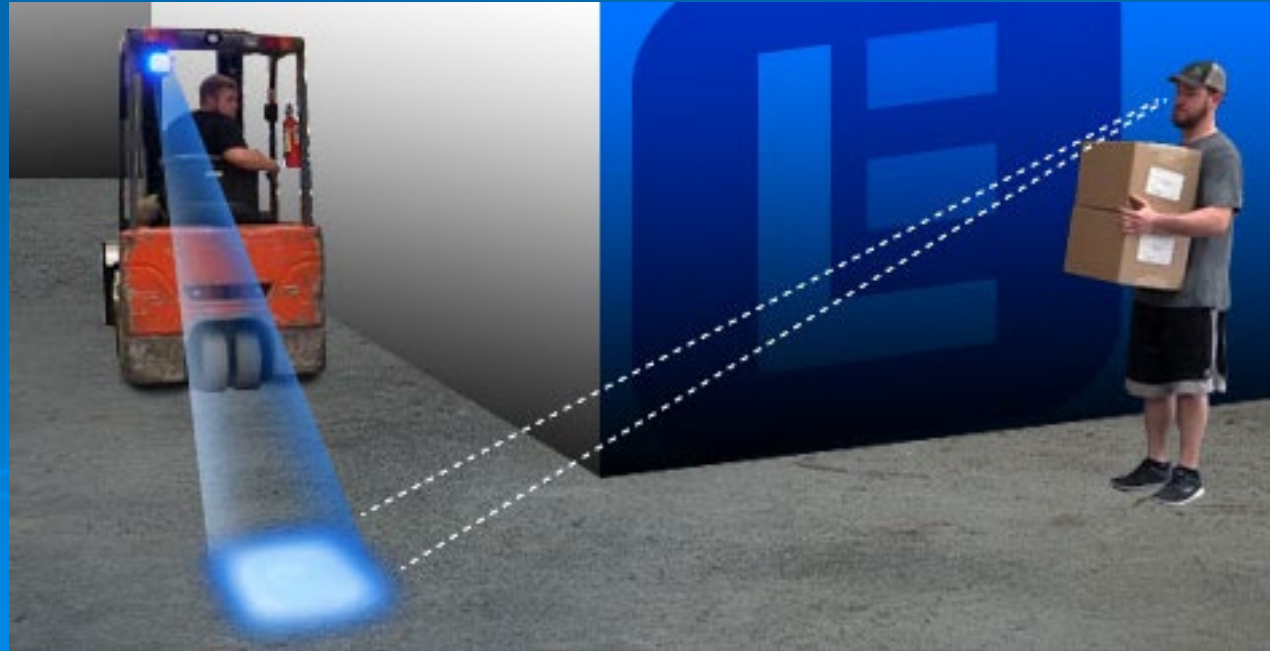


Don't forget to train pedestrians!

Neither the pedestrian or the forklift operator were paying attention!!



# New Technology and Safety Features



No Speeding!!







# Forklift Types



Class I: [Electric Motor Rider Trucks](#)



Class II: [Electric Motor Narrow Aisle Trucks](#)



Class III: [Electric Motor Hand Trucks or Hand/Rider Trucks](#)



Class IV: [Internal Combustion Engine Trucks \(Solid/Cushion Tires\)](#)



Class V: [Internal Combustion Engine Trucks \(Pneumatic Tires\)](#)



Class VI: [Electric and Internal Combustion Engine Tractors](#)

The Industrial Truck Association list seven classes of PITs.



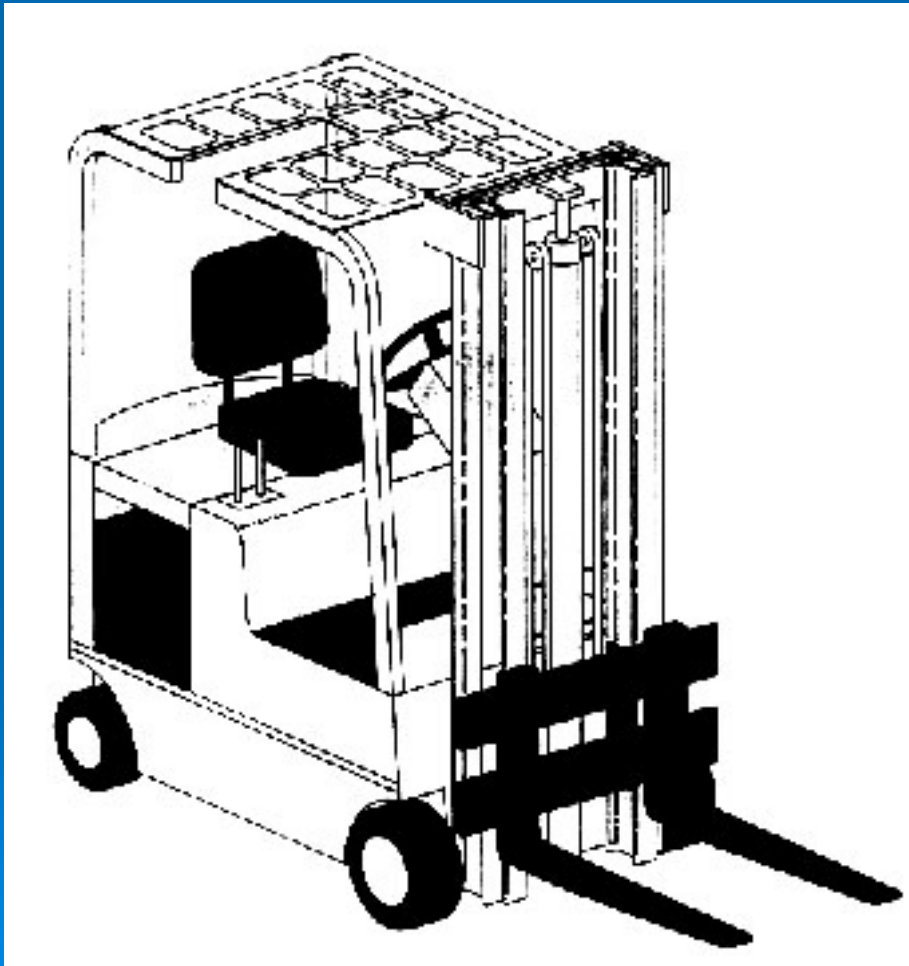
Class VII: [Rough Terrain Forklift Trucks](#)



# Classes of Commonly-Used Powered Industrial Trucks

- **The Industrial Truck Association has placed powered industrial trucks into 7 classes.**
  - Class I - Electric motor rider trucks
  - Class II - Electric motor narrow aisle trucks
  - Class III - Electric motor hand trucks or hand/rider trucks
  - Class IV - Internal combustion engine trucks (solid tires)
  - Class V - Internal combustion engine trucks (pneumatic tires)
  - Class VI - Electric and internal combustion engine tractors
  - Class VII - Rough terrain forklift trucks

# Class I - Electric Motor Rider Trucks

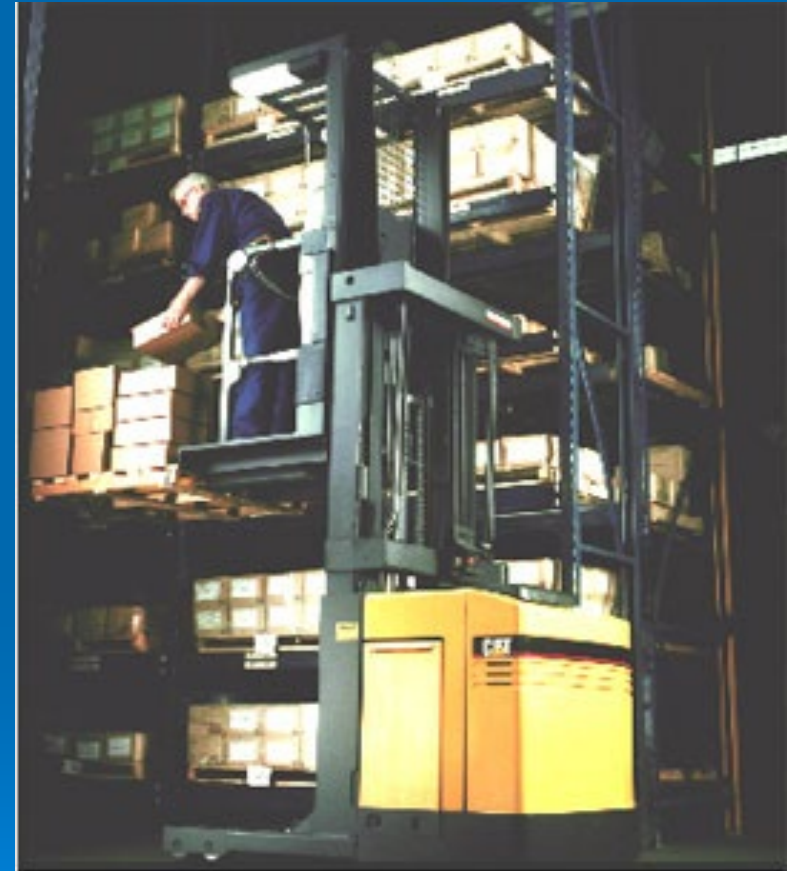


**Sit Down Rider - Electric**

# Class 2 - Narrow Aisle Trucks



**Rider Reach Truck**



**Order Picker**

# Order Picker Fall Protection

In warehouses “order picker” forklifts, the vehicle must have either:

- Standard guardrails on all open sides
- or
- A safety harness and retractable



# Class 2 Electric Truck

## Characteristics:

1. Electric motor
2. Narrow construction to fit in aisles
3. Solid tires

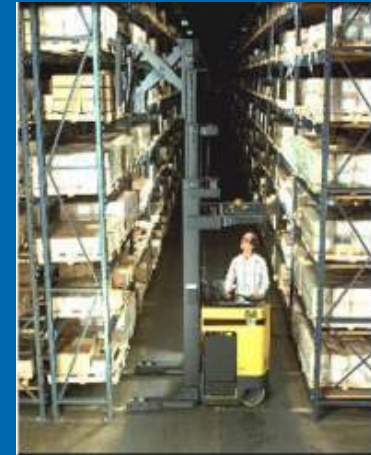
On some models, forks reach in and out as well as up, down and tilt. Other models have the forks on the side (called "Side Loaders") or allow the forks to pivot to the side (called "Front/Side Loaders").



The operator stands on a platform which moves up and down. Sometimes called an "order picker"



Order Picker



Rider Reach Truck



Straddle legs add stability for forklifts that don't use a counter-weight

# Class 3 - Hand & Hand/Rider Trucks



**Walkie Powered  
Pallet Truck**



**Walkie/Rider  
Powered Pallet Truck**

# Class 4 - Internal Combustion Engine Trucks - Cushion (Solid) Tires



**Sit Down Rider Fork  
- LPG**

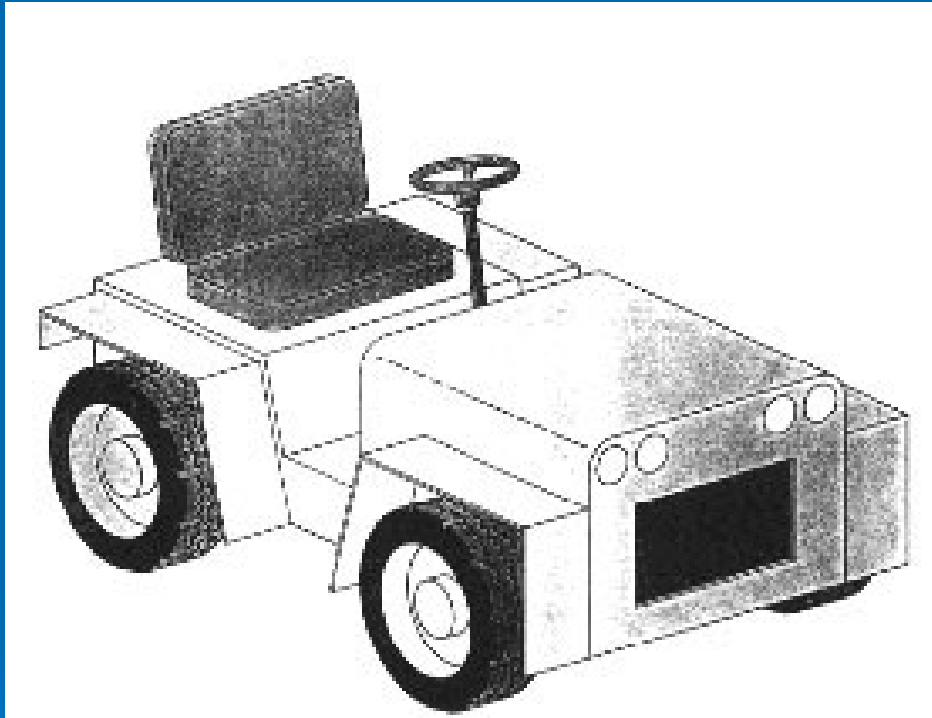
# Class 5 - Internal Combustion Engine Trucks (Pneumatic Tires)



**Sit Down Rider - Gas-  
Pneumatic Tires**



# Class 6 - Electric & Internal Combustion Engine Tractors



Sit-down rider

# Class 7 - Rough Terrain Forklift Trucks

- Straight-mast forklift



- Extended-reach forklift



All rough terrain forklift trucks

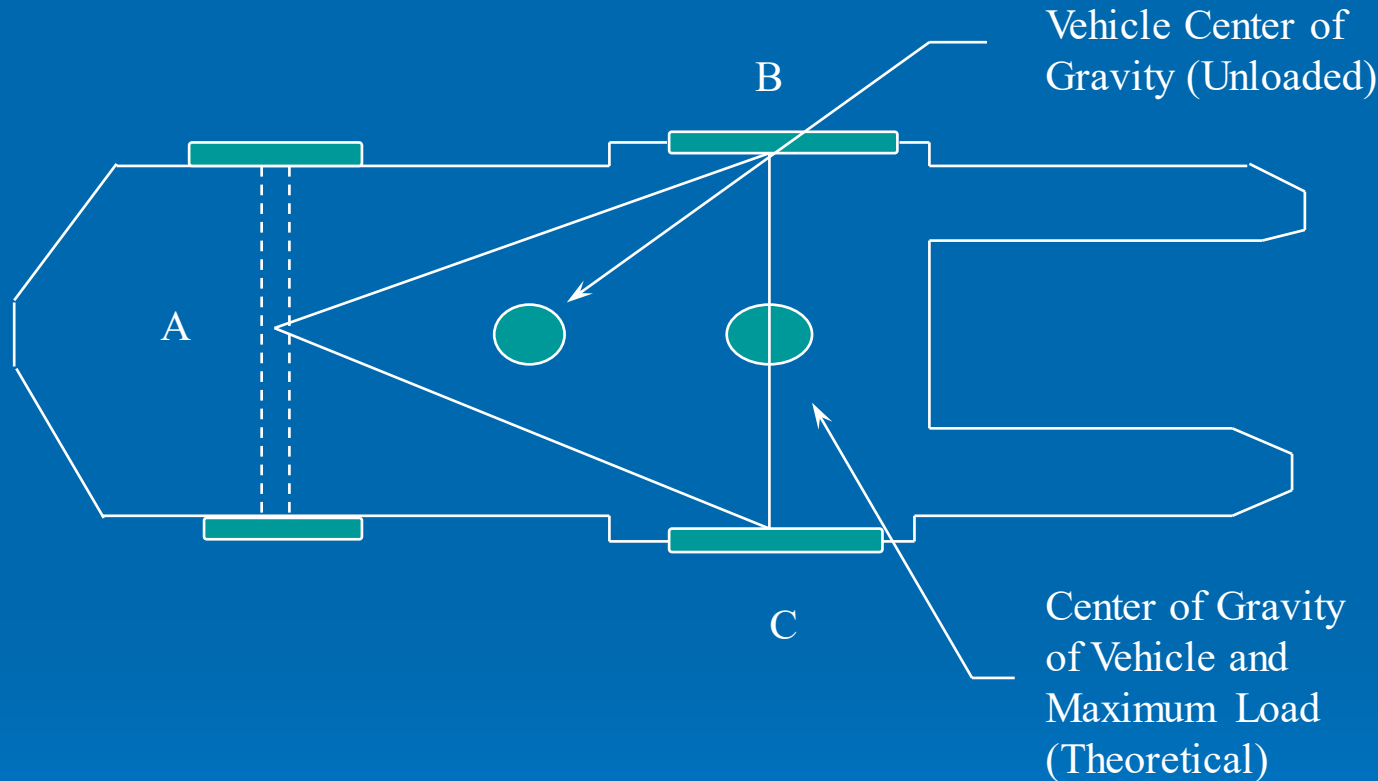
# Stability of Powered Industrial Trucks



# Stability / Capacity



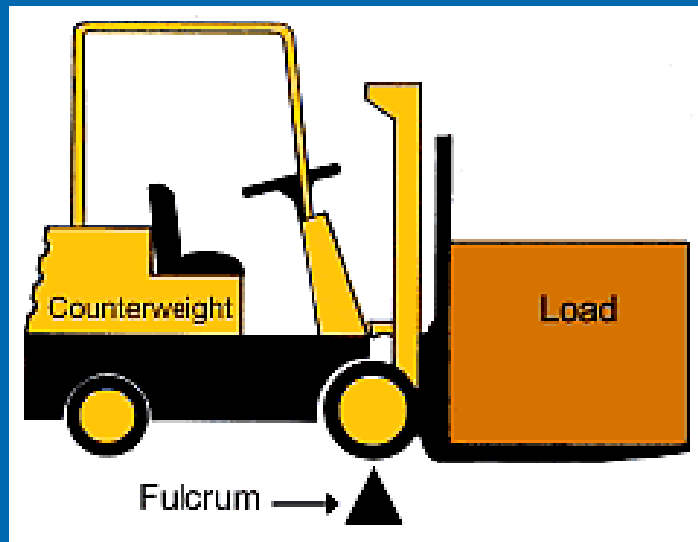
# Stability Triangle - Figure 1



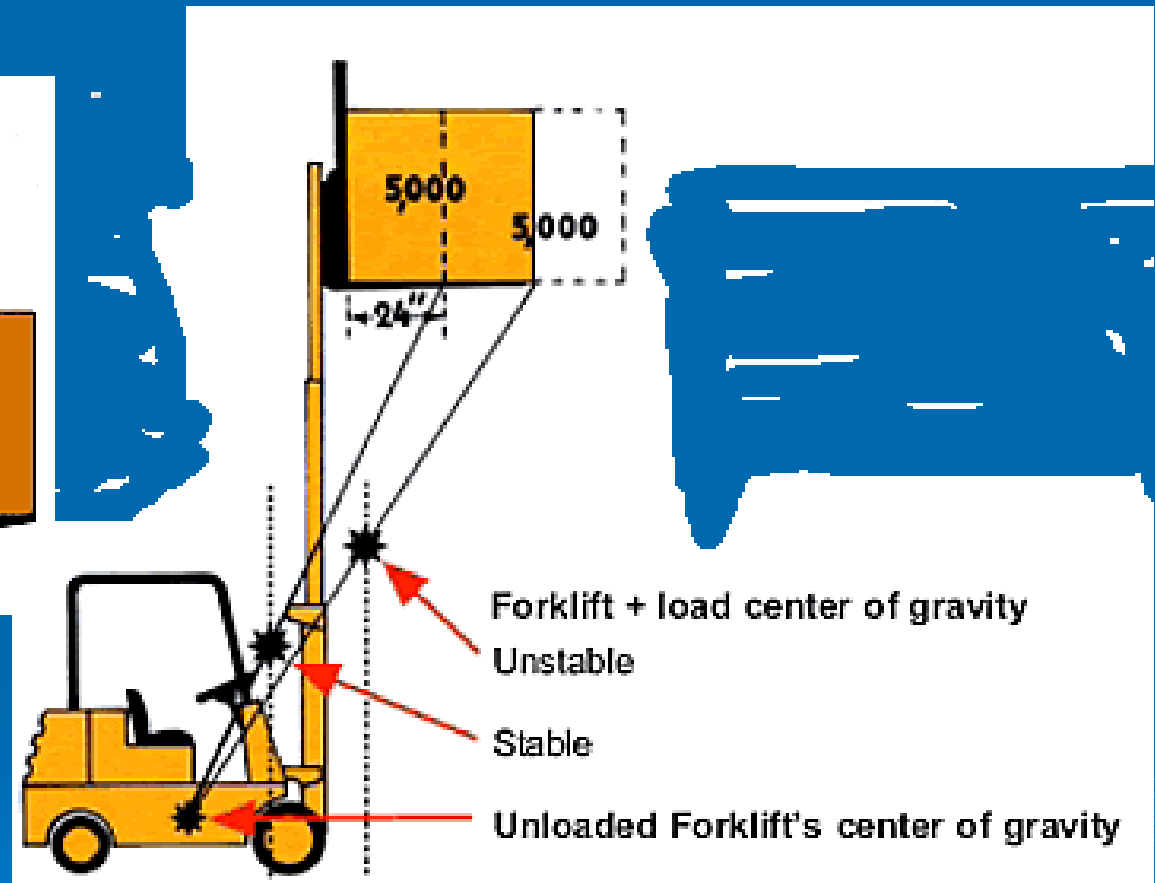
## Notes:

1. When the vehicle is loaded, the combined center of gravity (CG) shifts toward line B-C. Theoretically the maximum load will result in the CG at the line B-C. In actual practice, the combined CG should never be at line B-C.
2. The addition of additional counterweight will cause the truck CG to shift toward point A and result in a truck that is less stable laterally.

# How loads affect forklifts



OSHA



A forklift balances a load with a counterweight at the back. The front wheels act as a fulcrum or balance point. The center of gravity moves upward when the forks are raised.

Don't travel with a raised load



# Wide or irregular size loads



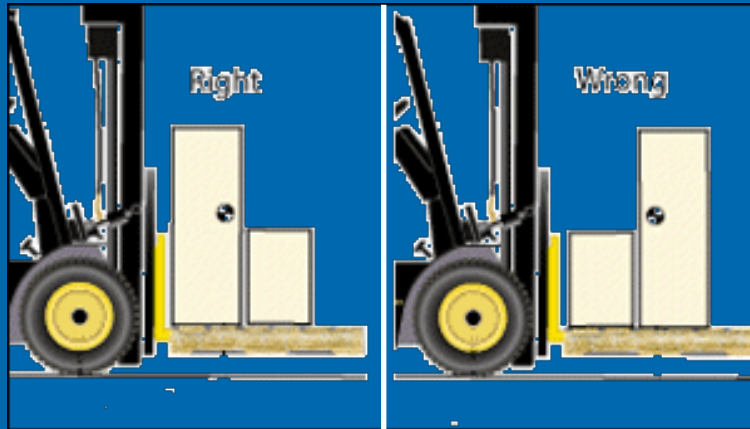
Distribute the weight evenly when carrying irregular sized loads.

Keep the center of gravity of the load as near as possible to the center going horizontally across the forks.

Keep the center of gravity of the load as near to the front wheels as possible.



# Forklift Load Capacity



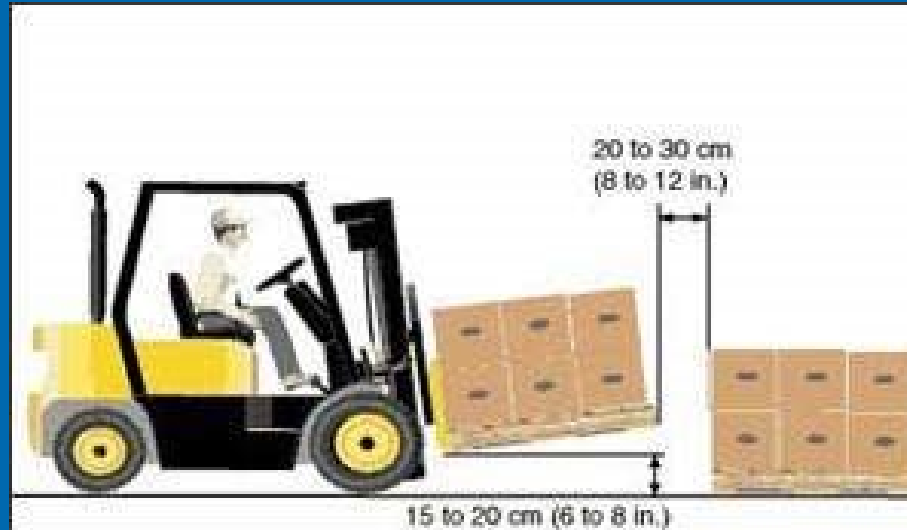
While carrying a load near the maximum allowable capacity, be aware of the following:

Danger of tipover

Danger of losing load

Danger of being struck by falling load

# Moving the load



Use extra caution when handling loads that approach the truck's maximum rated capacity:

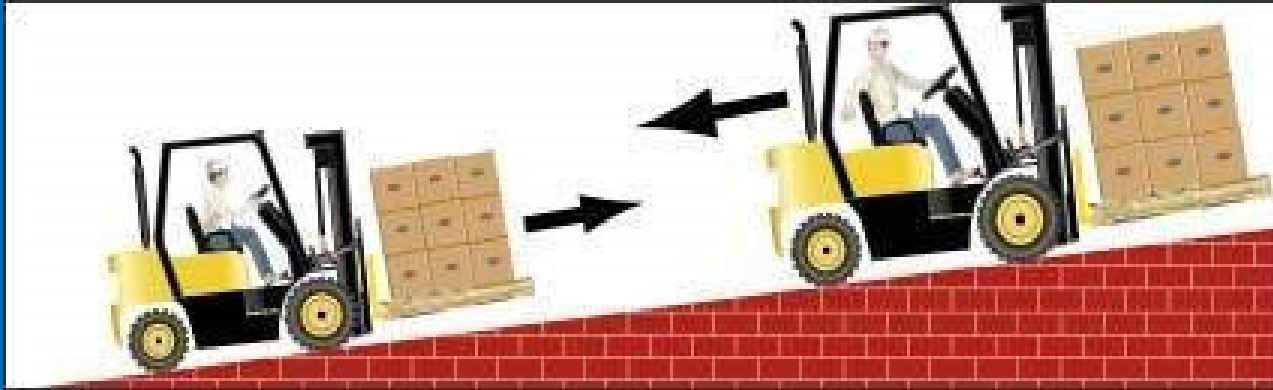
Tilt the mast & forks back and position the heaviest part of the load against the carriage.

Travel with the mast tilted back to keep the load stable.

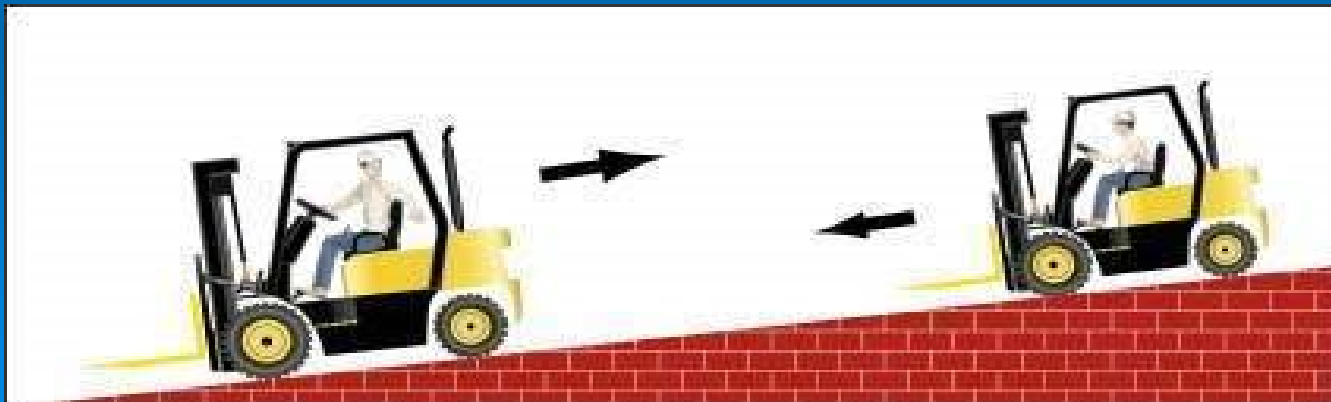
Never travel with the load tilted forward. Tilting the load forward increases the load distance and makes the load less stable

# Driving on an incline

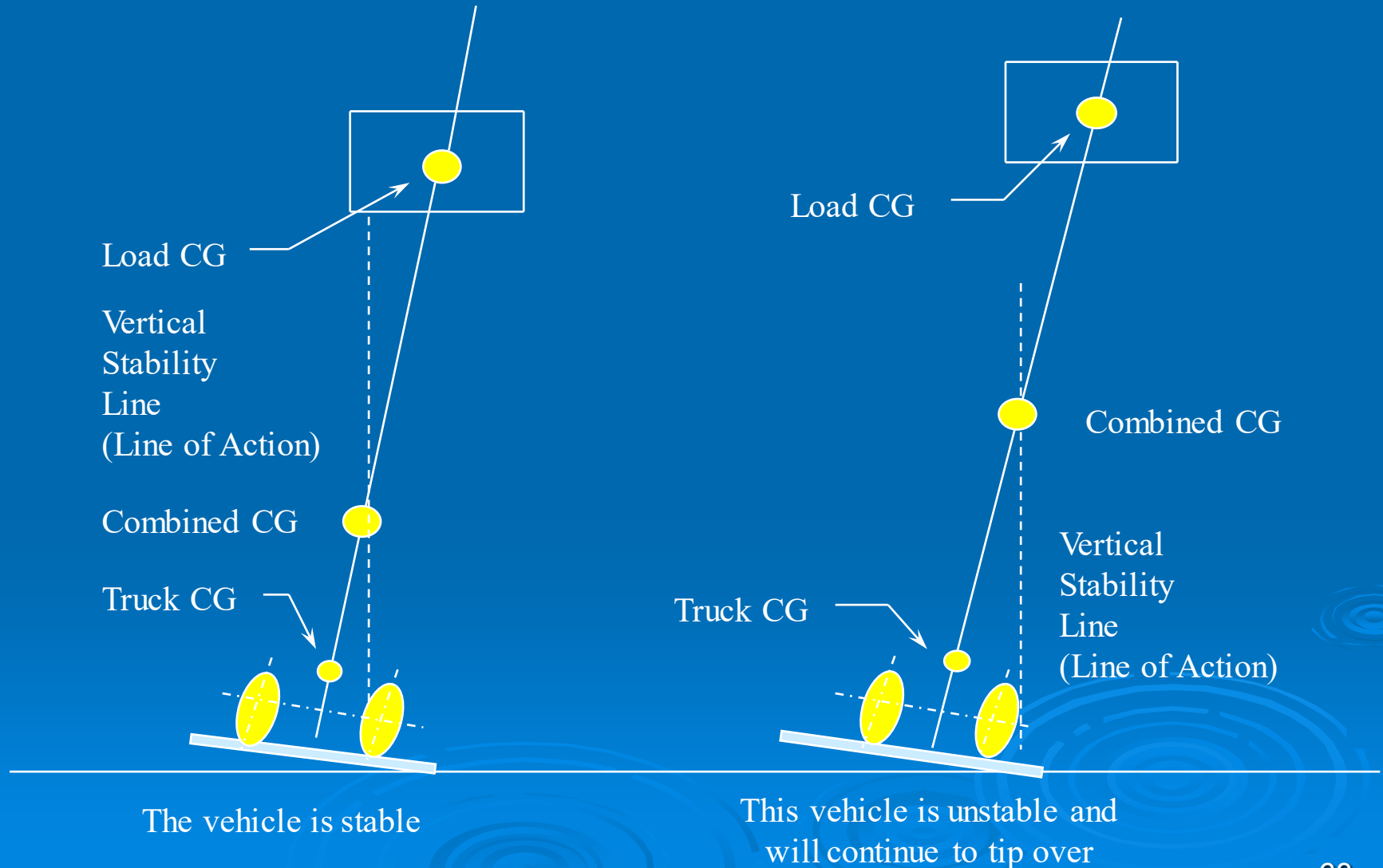
Always drive with the load on the uphill side - go backwards driving down the incline and frontwards going up the incline to prevent tipping or losing control of the forklift.



If no load on the forklifts, do the opposite with forks pointing down the ramp

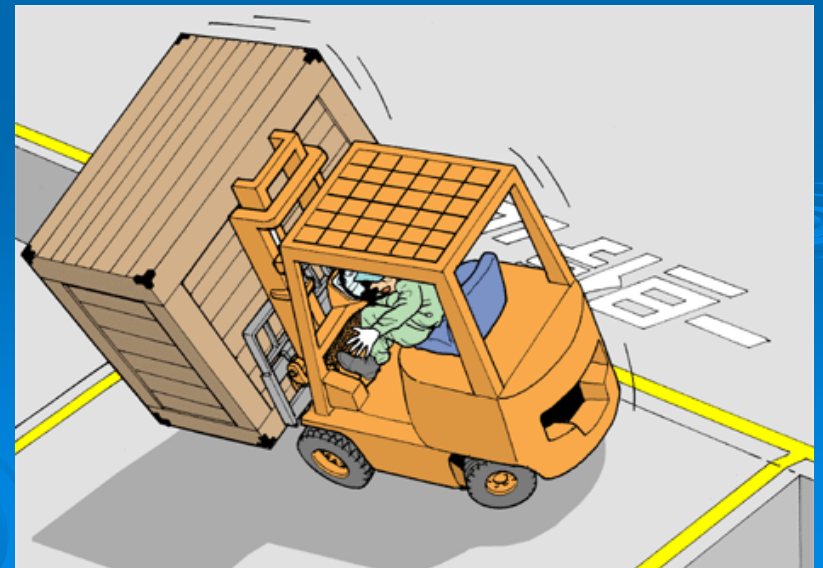


# Stability Triangle - Figure 2

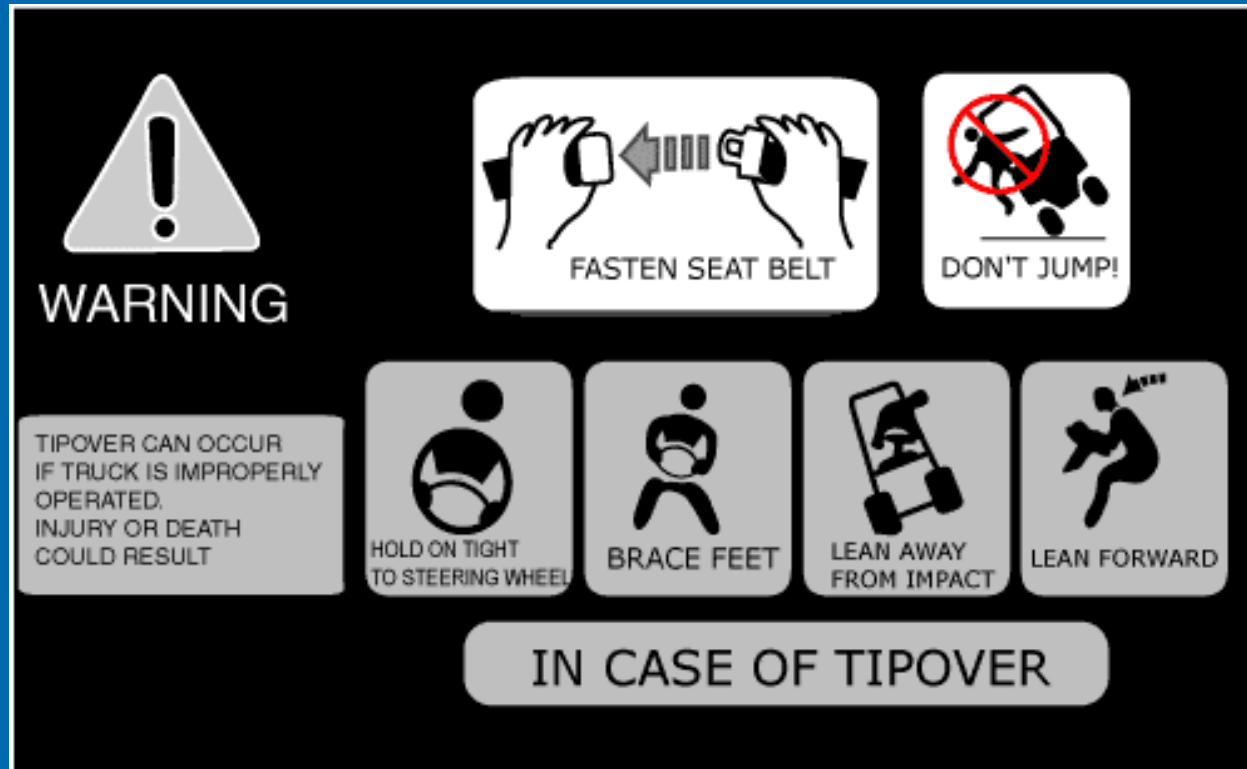


# More Reasons Why Forklifts Tip Over

- Driving too fast around a corner
- Driving off edge of platform, ramp, road or other surface
- Driving an indoor forklift outdoors on rough, uneven ground
- Turning on an incline or hill



# What to do in case of a tip-over



If the forklift tips, keep your arms and legs inside and hold on to the steering wheel. Don't attempt to jump out – you can't move faster than the forklift can tip over. Most people who attempt to jump are killed by the impact of the overhead guard.

Tipover procedures for other types of forklifts may vary. For example operators of stand-up forklifts with rear-entry access should step backwards off the forklift if a tipover occurs.

# Seatbelts

Seatbelts are required on all forklifts manufactured since 1992 and can be retrofitted on all older models.

You are required to use it when it is supplied with the forklift. It will save your life.

Click it - before  
you drive!!



A common cause of forklift fatalities is from the operator not having or using a seatbelt.

# Modifications

## 1910.178 (a)(4)

Modifications and additions which affect capacity and safe operation shall not be performed by the **customer or user** without manufacturers prior written approval.

Capacity, operation, and maintenance instruction plates, tags, or decals shall be changed accordingly.







EP15T CAT3



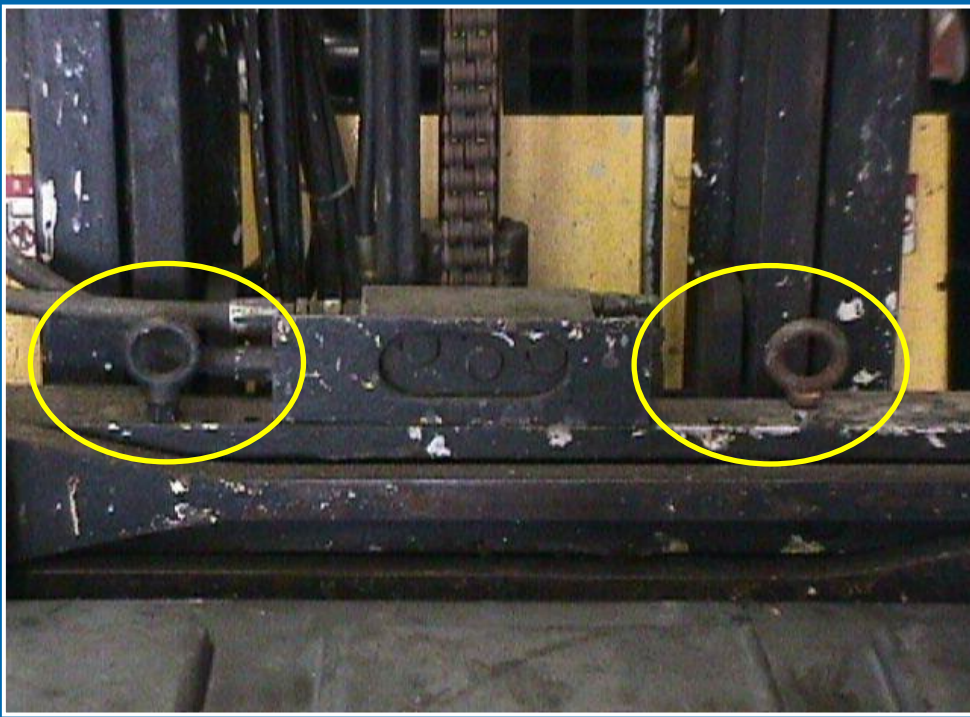
HYSTER

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- **Look closely for Attachment Points**
- **Must be approved by mfg**





CM

# Forklift Attachments

Forklifts can have a variety of attachments which affect their performance and use.

The load capacity of the forklift is reduced by the weight of the attachment.

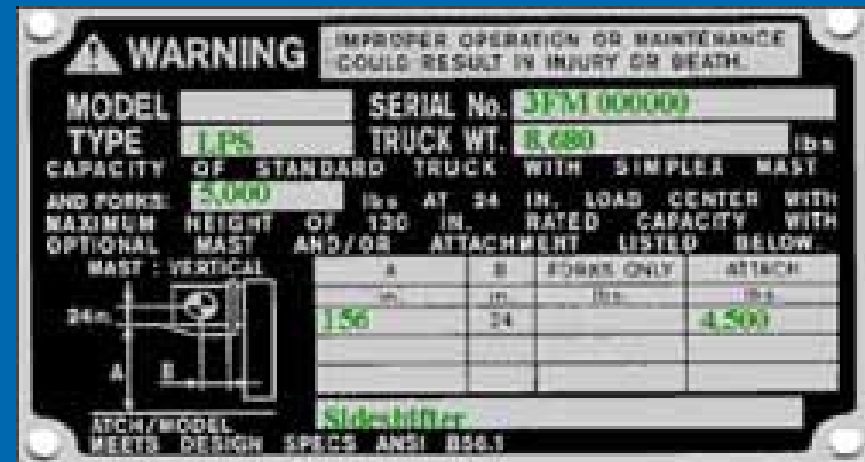
The attachment must be approved by the forklift manufacturer.

Be sure you know how to use the specific attachments on the forklift you will be operating.

Operators must be trained on the attachments!



# Attachments

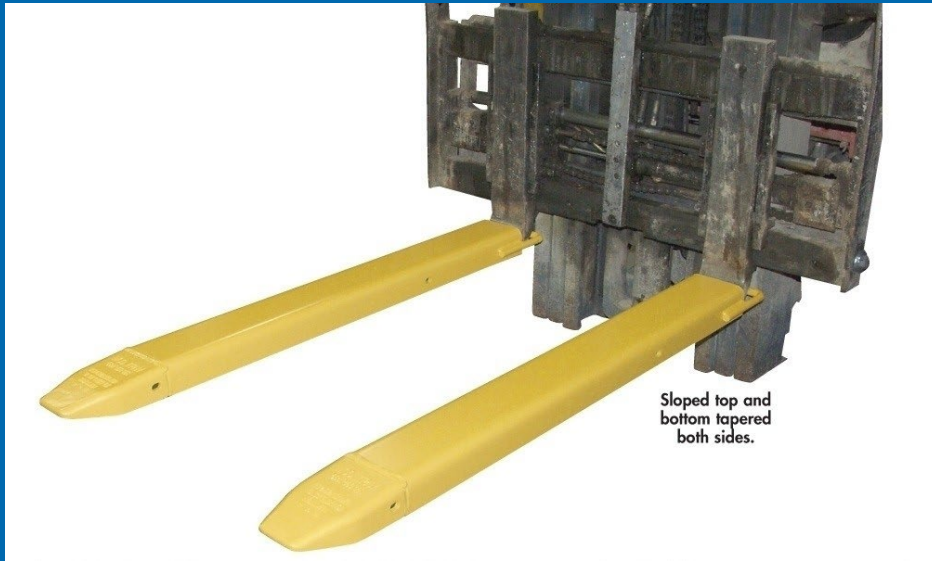


(a)(5)

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.

(a)(6)

The user shall see that all nameplates and markings are in place and are maintained in a legible condition.



# Fork Extensions







# Dump Recycling Bin



# Forklift Work Platforms

Never lift other workers on forks unless you use an approved work platform with railings as shown.



**Dangerous!!**



Is this platform safe? Attached Hoisting Device?  
Approved platform? Is the Cage Secured?  
Securing Chain hanging?

# Proper equipment for the Job!



# Forklift inspection and maintenance

All forklifts be examined at least daily before being used. Forklifts used on a round-the-clock basis must be examined after each shift. Check the following:

- Fluid levels -- oil, water, and hydraulic fluid.
- Leaks, cracks or other visible defect in hydraulic hoses and mast chains.
- Tire pressure and tire cuts or gouges.
- Condition of the forks, including the top clip retaining pin.
- Safety decals and nameplates in place and legible.
- All safety devices working properly including the seat belt.

A vehicle that is damaged, defective or otherwise unsafe must be removed from service. Report the problem to your supervisor immediately.



# Propane-powered forklifts and carbon monoxide

Propane powered forklifts produce carbon monoxide. The amount depends on how well they are tuned, but should be 1% or less at the tailpipe.

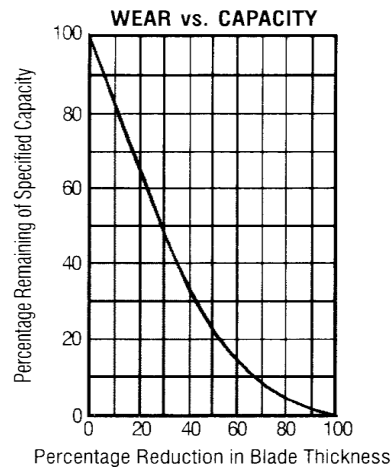


Carbon monoxide poisoning can occur when propane forklifts are used in cold rooms, controlled atmosphere rooms, truck trailers or shipping containers, or in warehouses or other enclosed areas that do not have enough fresh air ventilation.

If propane powered forklifts are used indoors, they should be tuned up regularly and tested for carbon monoxide emissions periodically.

# ANSI B56 Recommends that Forks be inspected on a regular basis for;

- Surface Cracks
- Straightness
- Fork Angle
- Tip Alignment
- Blade Wear



## INSTRUCTIONS FOR CALIPER USE

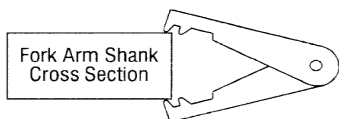


FIG. 1

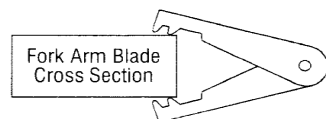


FIG. 2

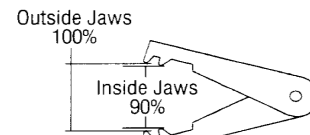


FIG. 3



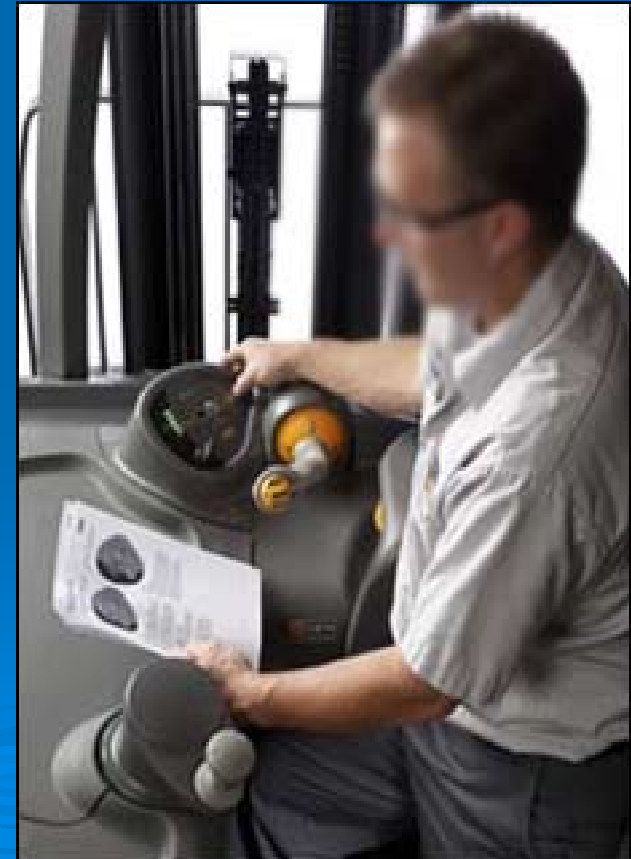
# Pre-Operation

The operator should conduct a pre-start visual and operational inspections to ensure the forklifts will operate safely.

A vehicle that is in need of repair, defective or in any way unsafe must be removed from service. The problem should be recorded on a log and reported to a supervisor immediately.

All repairs must be made by authorized personnel.

Perform preventive maintenance according to manufacturer's scheduled recommendations.





# Refueling a propane powered forklift

Liquid propane is extremely cold when released to the atmosphere. If your skin is exposed to propane while refueling, you can get frostbite.

- Shut off the engine before refueling.
- Before replacing an LP gas tank, close the shut off valve and let the engine run until it stalls.
- Don't leave propane-powered forklifts near high heat sources.
- When parking propane-powered forklifts for a long period of time, turn the tank valve off.

Any propane leak must be taken seriously. Propane vapor is heavier than air and will tend to sink to the lowest lying area. If not adequately dissipated, it will ignite when exposed to a spark or flame.



# Charging or changing batteries on electric forklifts

The battery changing / charging area should have the following:

- No smoking signs.
- Because of the danger of electrical arcing, which will ignite hydrogen gas, keep tools and other metal objects away from the top of uncovered batteries.
- Adequate fire protection.
- Plenty of water for flushing and neutralizing spilled battery acid.
- An eyewash that provides at least 15 minutes of flowing water.
- Enough ventilation to remove hydrogen gas during battery charging.



If you have to add water to batteries or handle battery acid, be sure to wear personal protective equipment.



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## Powered Industrial Trucks (Forklift)

Types & Fundamentals

Operating the Forklift

The Workplace

Training Assistance

### Powered Industrial Trucks (Forklift) eTool

Powered industrial trucks, commonly called forklifts or lift trucks, are used in many industries, primarily to move materials. They 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 commonly associated with powered industrial trucks vary depending on the vehicle type and the workplace where the truck is used. Each type of truck presents different operating 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 than other worksites in maintaining pedestrian safety.

The best way to protect employees from injury also depends on the type of truck operated and worksite where it is being used. This eTool\* specifically provides information on OSHA's Powered Industrial Truck requirements [[29 CFR 1910.178](#)] and industry best practices addressing:

- [Types and Fundamentals](#)  
The differing types and fundamentals of powered trucks
- [Operating the Forklift](#)  
The basic operating rules and safe work practices
- [Understanding the Workplace](#)  
How workplace conditions can affect safe operation
- [Training Assistance](#)  
Operator training required by OSHA



[Types and Fundamentals](#)



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# Questions??