

# Powered Industrial Trucks Operator Training

## 1910.178 (I) General Industry

The American National Standards Institute is a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes, systems, and personnel in the United States.

Canada Powered Industrial Truck (PIT) Trainer in accordance with Section 7.2 of CAN/CAS B335-15

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The Occupational Safety and Health Administration  
OSHA is an agency of the US Dept of Labor

OSHA's mission:

“assure safe and healthy working conditions for working men and women by setting and enforcing standards”

Under the OSHA law,  
Employers are responsible for providing a safe and healthful  
workplace for their workers.

# OSHA Final Rule:

- ❑ December 1, 1998, OSHA published the Final Rule for Powered Industrial Trucks.
- ❑ The effective date is March 1, 1999.
- ❑ It applies to all industries except agricultural operations.
- ❑ OSHA estimates that the new rule will prevent 11 deaths and 9,422 injuries per year.



# Powered Industrial Truck – Definition:

A mobile power propelled truck used to:

- Push
- Pull
- Lift
- Stack or Tier Material



And can be ridden on or controlled by a walking operator.

Commonly known as:

Forklift, Lift Trucks, Power Trucks, Pallet Jacks and Rider Trucks

# Who Can Use A PIT?



OSHA has very clear standards that employers must follow.

## Operator Qualification's:

- Only trained and authorized personnel shall be permitted to operate a powered industrial truck.
- All powered industrial truck operators must be trained and certified using
- Proper training material and physical evaluation.
- 18 years or older.



# Certification Process

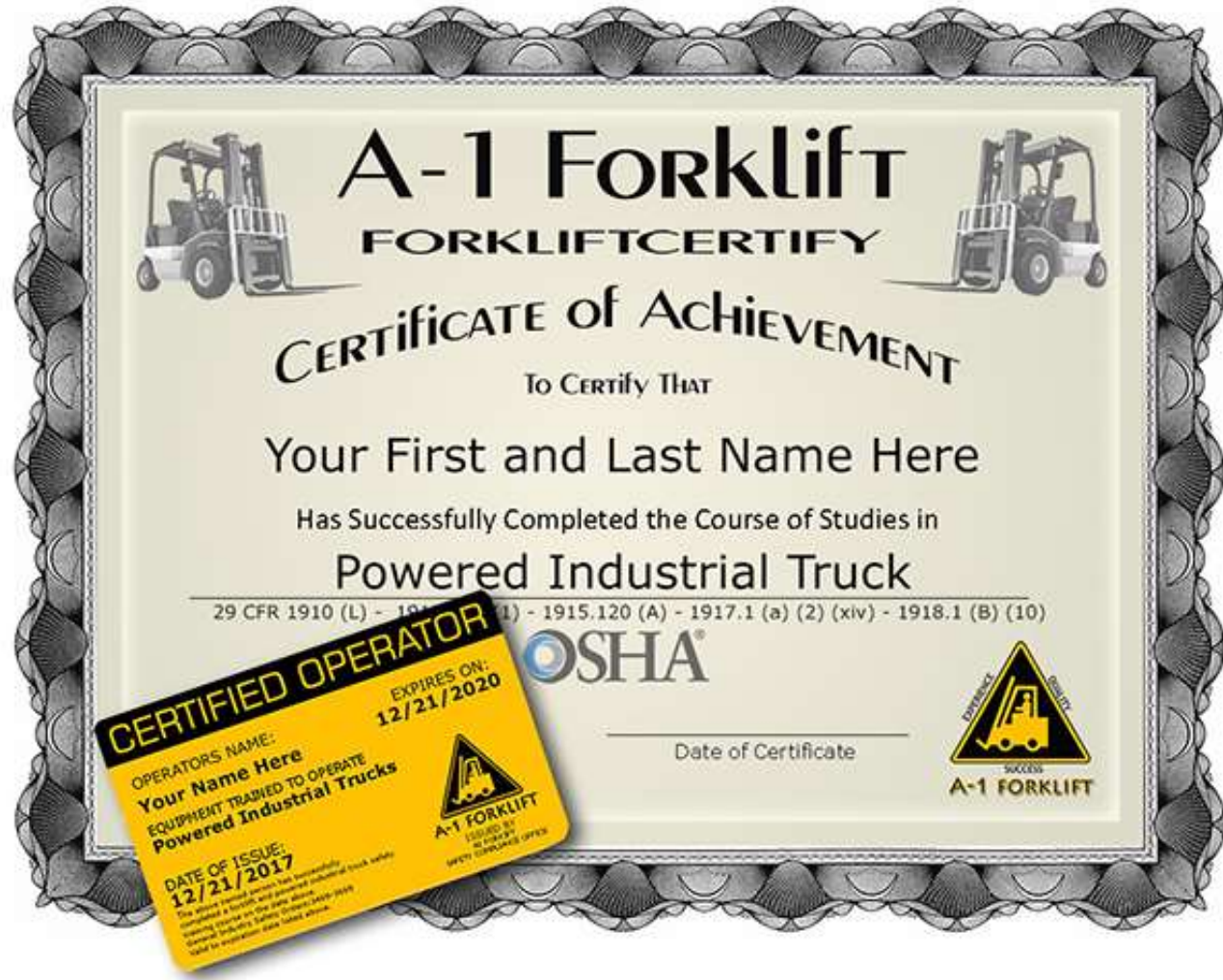
- Complete a written exam.
- Review Safe Operating Rules as published by OSHA
- Complete a skill test on actual equipment.



# Certification and Wallet Card

Where does it go?

How long is it valid for?



In 1970 OSHA estimated **38** workers killed per day

**On average 5,333 workers died on the job in 2019,  
2019 OSHA estimates 14 deaths per day**



**34,900** seriously injured yearly

**61,800** injuries classified as non serious



# Accidents / Injuries

## Preventable?



What are the most common PIT Injuries?

1. Rollover
2. Crushed by PIT
3. Pedestrian truck/pinned by PIT



**NO**

**SMOKING  
CELL PHONES  
EARPIECES  
SPEEDING  
DRINKING**



# The most common Powered Industrial Truck Injury?

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## Pedestrians:

*Always have the right of way.*

*Never drive up close to anyone.*

*Look in the direction of travel.*

*Make eye contact.*

*Sound horn.*

**Stop, look and listen**

# Good Housekeeping Is Key To SAFETY



- Cleanliness
- Order
- A Place For Everything



Enforcement plays an important part in OSHA's efforts to reduce workplace injuries, illnesses, and fatalities.

# **Fact Sheet**

After January 2019

Type of Violation	Current Maximum Penalty	New Maximum Penalty
<b>Serious Other-Than-Serious Posting Requirements</b>	\$7,000 per violation	\$13,260 per violation
<b>Failure to Abate</b>	\$7,000 per day beyond the abatement date	\$13,260 per day beyond the abatement date
<b>Willful or Repeated</b>	\$70,000 per violation	\$132,598 per violation

When OSHA finds employers who fail to uphold their safety and health responsibilities, The agency takes strong actions.

# Pre-Operation Inspection:



# OPERATING RULES:

Daily, pre-shift inspection of powered industrial trucks is required by OSHA standard. If the vehicle is found to be unsafe the vehicle must be removed from service logged and reported.

- Check the tires for excessive wear
- Check the horn and any other warning devices for proper operation.
- Check all lift, lower, tilt and attachments controls for proper operations and any visual sign of hydraulic leakage.
- Check the parking brake and service brakes.
- Check the steering for excessive play.
- Check the forks and retaining pins for damage.
- Check the general appearance of the mast.







**Horn, Steering** (excessive play)

**Parking brake**

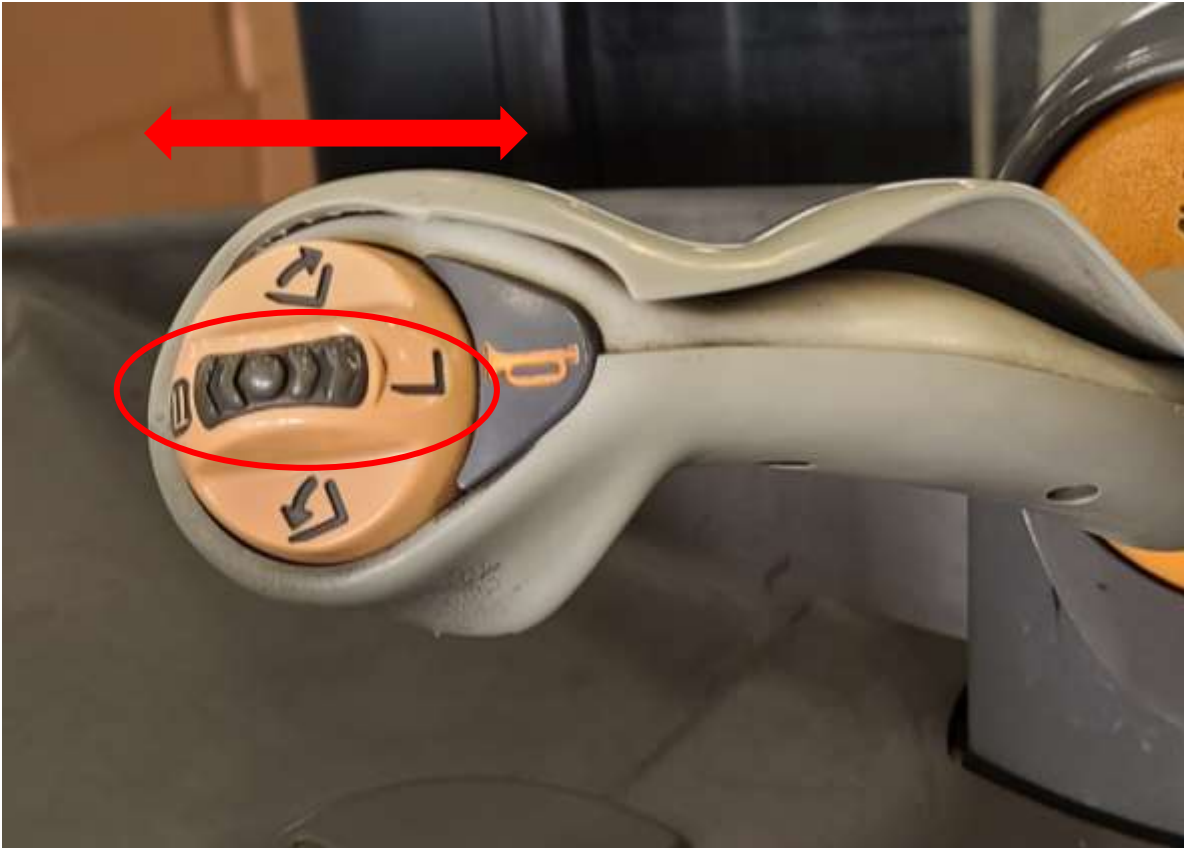
**Lift/Lower, Tilt** (up/down), **Side/Side**

**Gas, Brake Pedal**

# Dead Man Pedal

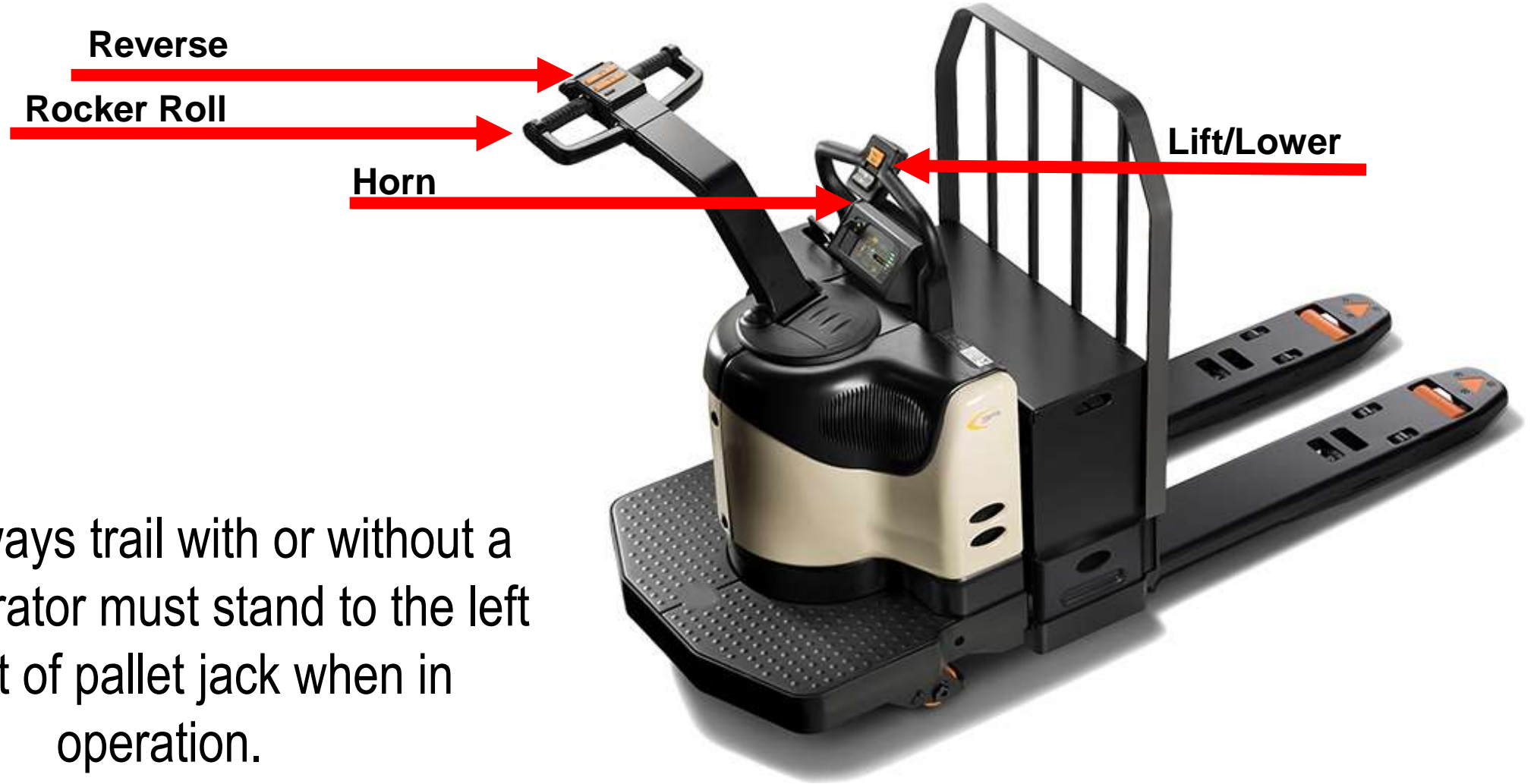


**Left / Right**



**Tilt**

# Complete Stop before dismounting



Forks always trail with or without a load. Operator must stand to the left or right of pallet jack when in operation.

Trucks will not be loaded in excess of their rated capacity.  
 The rated capacity of the truck must be clearly visible by the operator.

**TOYOTA FORKLIFT TRUCK**

MODEL: 7FGCU25 SERIAL NO. 97847 2-00  
 MAST: FSU BACK TILT: 5 ATTACH: FORKS  
 TYPE: LP  
 FRONT TREAD: 35 in TIRE FR: 21x7x15/SOLID  
 TREAD: 885 mm SIZE RR: 16x8x18-1/2/SOLID

TRUCK WT. 8372 lb  
 ACCURACY±5% 3800 kg

RATED CAPACITY WITH VERTICAL MAST EQUIPPED AT MAX. LIFT HEIGHT AS SHOWN

	A	B	C	CAPACITY
in 169	24	0		5000 lb
mm 4300	600	0		2200 kg
in 189	22	0		4350 lb
mm 4800	760	0		1900 kg

**WARNING** IMPROPER OPERATION OR MAINTENANCE COULD RESULT IN INJURY OR DEATH. OPERATORS ONLY. READ OPERATOR'S MANUAL FIRST.

Maximum Load Capacity



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# Pre-Operation Inspection:

W.A. # _____		CUSTOMER NAME _____		DATE _____
DATE _____		ADDRESS _____		TIME _____
MODEL _____		CITY, STATE, ZIP _____		
TECHNICIAN SIGNATURE _____		PHONE _____		
PL# _____	HOURS _____	CUSTOMER SIGNATURE _____		

Visual	Functional	Operational	Miscellaneous	Additional Maintenance
<input type="checkbox"/> 1. Safety Decal and Chart	<input type="checkbox"/> 21. Hoses	<input type="checkbox"/> 40. Lifting System	<input type="checkbox"/> 60. Leaking System	<input type="checkbox"/> 72. Engine/Fuel Filter
<input type="checkbox"/> 2. Operator's Manual	<input type="checkbox"/> 22. Cylinder/Valves	<input type="checkbox"/> 41. Back Counter	<input type="checkbox"/> 61. Back Counter	<input type="checkbox"/> 73. Engine Air Filter
<input type="checkbox"/> 3. ROPS	<input type="checkbox"/> 23. Linkage/Controls	<input type="checkbox"/> 42. Brake/Power/Burn	<input type="checkbox"/> 62. Brake/Power/Burn	<input type="checkbox"/> 74. Transmission Oil Filter
<input type="checkbox"/> 4. Back-up Alarm/Horn	<input type="checkbox"/> 24. Operational	<input type="checkbox"/> 43. Beam/Blade Pads	<input type="checkbox"/> 63. Beam/Blade Pads	<input type="checkbox"/> 75. Hydraulic Oil Filter
<input type="checkbox"/> 5. Seat Belts	<input type="checkbox"/> 25. FURCUBINATION	<input type="checkbox"/> 44. Cab/ROPS Mount	<input type="checkbox"/> 64. Cab/ROPS Mount	<input type="checkbox"/> 76. Hydraulic Oil Filter
<b>ENGINE</b>	<input type="checkbox"/> 26. Lubricator Grease Points	<input type="checkbox"/> 45. Beam/Chassis/Bearings	<input type="checkbox"/> 65. Beam/Chassis/Bearings	<input type="checkbox"/> 77. Fuel Filter
<input type="checkbox"/> 6. Belt Tensioner	<input type="checkbox"/> 27. Engine Oil Filter	<input type="checkbox"/> 46. Steering	<input type="checkbox"/> 66. Steering	<input type="checkbox"/> 78. Engine Valve Adjustment
<input type="checkbox"/> 7. Exhaust Smoke	<input type="checkbox"/> 28. Coolant	<b>ELECTRICAL</b>	<input type="checkbox"/> 67. Confirm All Electrical Functions	<input type="checkbox"/> 79. _____
<input type="checkbox"/> 8. Diesel Noise	<input type="checkbox"/> 29. Hydraulic Oil	<input type="checkbox"/> 68. Neutral Starting Switch	<input type="checkbox"/> 68. Neutral Starting Switch	<input type="checkbox"/> 80. _____
<input type="checkbox"/> 9. Turbocharger if equipped	<input type="checkbox"/> 30. Transmission Oil	<input type="checkbox"/> 69. Connections/Accessories	<input type="checkbox"/> 69. Connections/Accessories	<b>PERFORM</b>
<input type="checkbox"/> 10. Water System	<input type="checkbox"/> 31. Front/Back Differential	<input type="checkbox"/> 70. Battery Hold-Down	<input type="checkbox"/> 70. Battery Hold-Down	<input type="checkbox"/> 81. Confirm Transmission Operation
<input type="checkbox"/> 11. Muffler/Exhaust System	<input type="checkbox"/> 32. Front/Back Pans/Frame	<input type="checkbox"/> 71. Starter	<input type="checkbox"/> 71. Starter	<input type="checkbox"/> 82. Transmission Oil Cooler
<input type="checkbox"/> 12. Fuel Pumps	<input type="checkbox"/> 33. Rear Axle Differential	<input type="checkbox"/> 72. Alternator	<input type="checkbox"/> 72. Alternator	<input type="checkbox"/> 83. Drive Shafts
<input type="checkbox"/> 13. Fuel Line Clamps	<input type="checkbox"/> 34. Rear Axle Pans/Frame	<input type="checkbox"/> 73. Wheel/Wiper Pad	<input type="checkbox"/> 73. Wheel/Wiper Pad	<input type="checkbox"/> 84. Wheel/Lugs
<input type="checkbox"/> 14. Fuel Shut-Off System	<input type="checkbox"/> 35. Brake Pad	<input type="checkbox"/> 74. Deflated/Flat if equipped	<input type="checkbox"/> 74. Deflated/Flat if equipped	<input type="checkbox"/> 85. Tire Pressure
<input type="checkbox"/> 15. Fuel/Fluid Leakage	<input type="checkbox"/> 36. _____	<input type="checkbox"/> 75. Tire Spins	<input type="checkbox"/> 75. Tire Spins	<input type="checkbox"/> 86. Operator's
<input type="checkbox"/> 16. Fuel Tank	<b>HYDRAULIC</b>	<input type="checkbox"/> 76. Lights	<input type="checkbox"/> 76. Lights	
<input type="checkbox"/> 17. _____	<input type="checkbox"/> 37. Confirm All Hydraulic Functions	<input type="checkbox"/> 77. All Instruments	<input type="checkbox"/> 77. All Instruments	
<b>COOLING SYSTEM</b>	<input type="checkbox"/> 38. Coolant/Flaps	<input type="checkbox"/> 78. _____	<input type="checkbox"/> 78. _____	
<input type="checkbox"/> 18. Radiator Core	<input type="checkbox"/> 39. Control Linkage	<b>LEAKS</b>	<input type="checkbox"/> 79. Oil	
<input type="checkbox"/> 19. Fan/Belt/Drive	<input type="checkbox"/> 40. Caster	<input type="checkbox"/> 80. Coolant	<input type="checkbox"/> 80. Coolant	
<input type="checkbox"/> 20. Water/Output Tap	<input type="checkbox"/> 41. Cylinder/Valves	<input type="checkbox"/> 81. Fuel	<input type="checkbox"/> 81. Fuel	
<input type="checkbox"/> 21. Water Pump	<input type="checkbox"/> 42. Rearview	<input type="checkbox"/> 82. Air	<input type="checkbox"/> 82. Air	
<input type="checkbox"/> 22. _____	<input type="checkbox"/> 43. _____			
<b>STEERING SYSTEM</b>				
<input type="checkbox"/> 23. Linkage				
<input type="checkbox"/> 24. Lines/Rear				
<input type="checkbox"/> 25. Parking Brake/Pad				



SAFETY  
SUCCESS

This information is only for the purpose of suggesting possible repair or treatment of equipment. Any remedy will be conducted at the discretion of the inspector. No liability is assumed for any injury, loss, or damage resulting from the use of this information.

PR-1-018  
Rev. 1/18

**Visual** - Appearance

**Functional** - Operation

**Operational** - Performance

**Date, Sign  
Keep on file for 90 days.**

**. Visual . Functional . Operational .**

# Remember!

A vehicle in need of repair, defective or in any way unsafe, should not be driven and should be taken out of service immediately. Any problems should be recorded on the appropriate documents and reported to a supervisor.



**NO** modifications/additions  
can be made to your equipment.





Maintain 3 points of  
**STATIONARY**  
contact when getting on and off.





## **Stability Stance**

**4 Point of contact**

**Both feet on the floor in a comfortable position.**

**One hand firmly grasping the steering wheel.**

**The other hand on the fixed control handle.**

**NEVER travel while platform is elevated.**

**Although lowering the forklift before moving might seem counterproductive, it is important to put safety first when picking from elevated heights.**





Forklift seat belts are not meant to protect operators from high-speed collisions.

Instead, forklift seat belts are intended to protect operators from being crushed / pinned in the event the forklift tips over.



The seat belts save lives by preventing drivers from jumping.

# Stand Up Reach Truck



In the event of a tip over,  
step back.

# Order Picker **MUST** wear **Fall Protection per OSHA**



# Forklift Stability Triangle:



**Where is the Operators  
Center of Gravity?**





**Where is the Operators  
Center of Gravity?**



**Where is the Operators  
Center of Gravity?**



# Stand Up Reach Truck



# Attachments Alters Stability





Forks  
**MUST**  
be evenly  
balanced  
at  
**ALL** times.

**Never travel with forks elevated higher than???**





Forks **MUST**  
be a **Minimum** of  
**4-6"** off the floor inside and  
**6-8"** outside



Perform all truck movements smoothly and at a speed that will give you time to react in an **emergency.**



You control steering by moving the control handle from side to side. Always keep feet on the platform, no overhang.



# Maintain safe speed at ALL times:

## Reduce speed:

- Traveling on uneven surfaces,
- Wet and slippery floors,
- Congested areas, crossing bridge plates,
- Vision is obstructed.



**Excessive speed can result in roll over or tip over**

**NEVER allow  
anyone to walk under elevated forks.**



**Restrict pedestrian access.**

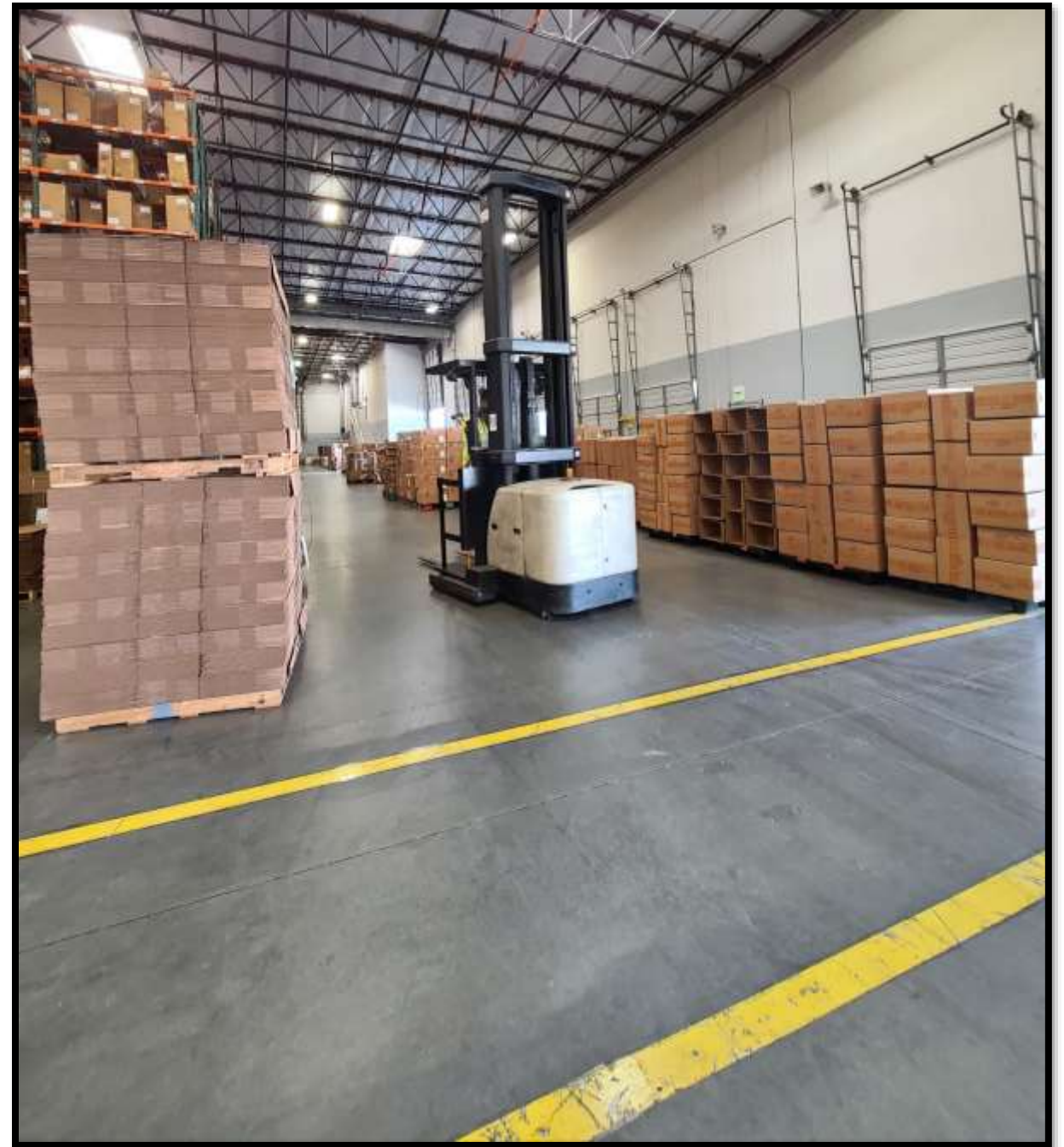
# Blind spots – Intersections

Slow down-

Stop-

Honk-

Proceed with caution





When your vision is obstructed  
**Travel in reverse**  
**Pull NEVER Push**

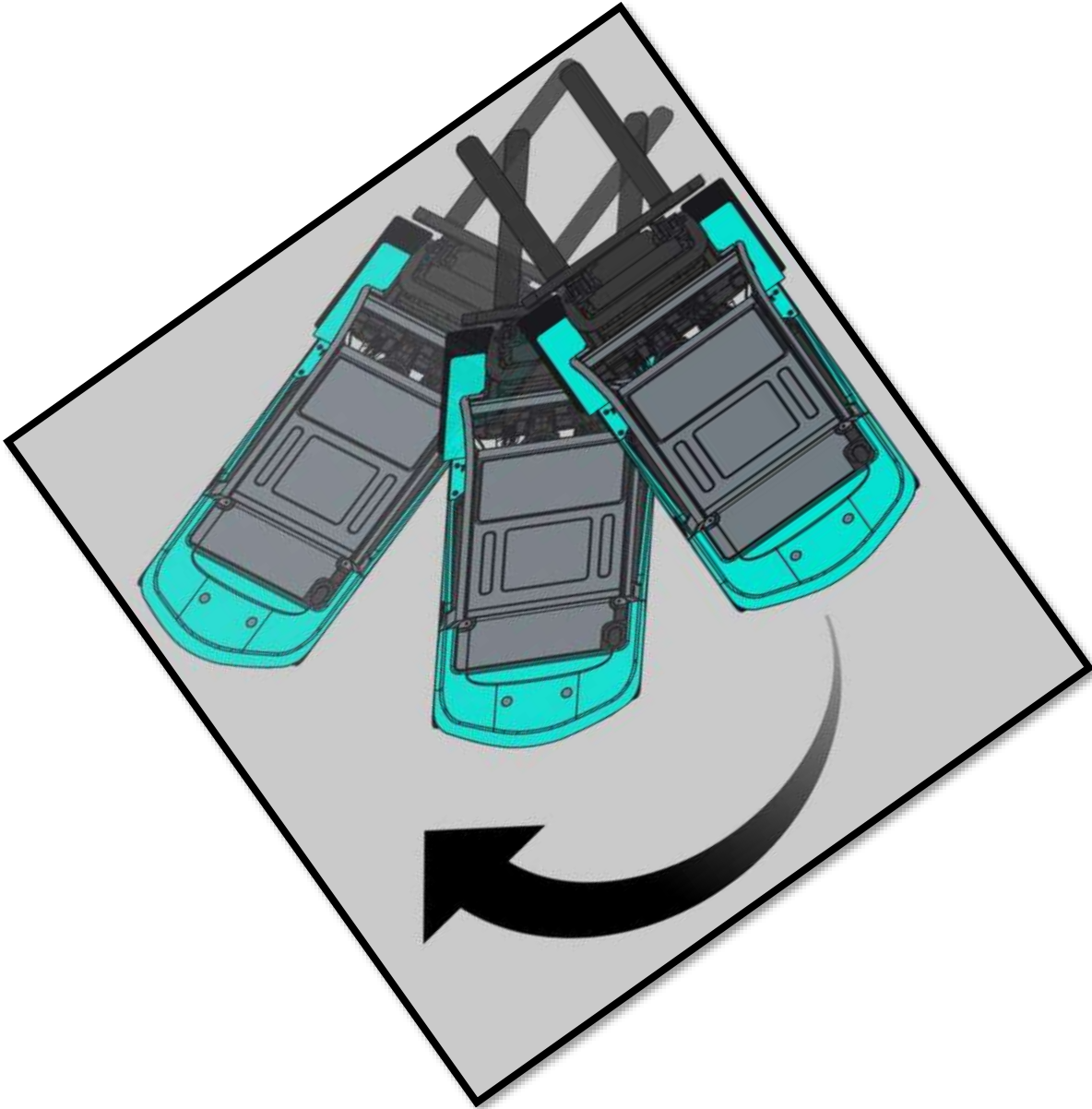




**Ensure Sufficient  
clearance  
under overhead installations.**



# Be careful of Rear End Swing:



Always:

look around before moving,  
look in the direction traveling,  
avoid traveling over loose objects  
or holes on the floor.

PIT's will not be operated on floors or platforms that will not safely support the loaded PIT.

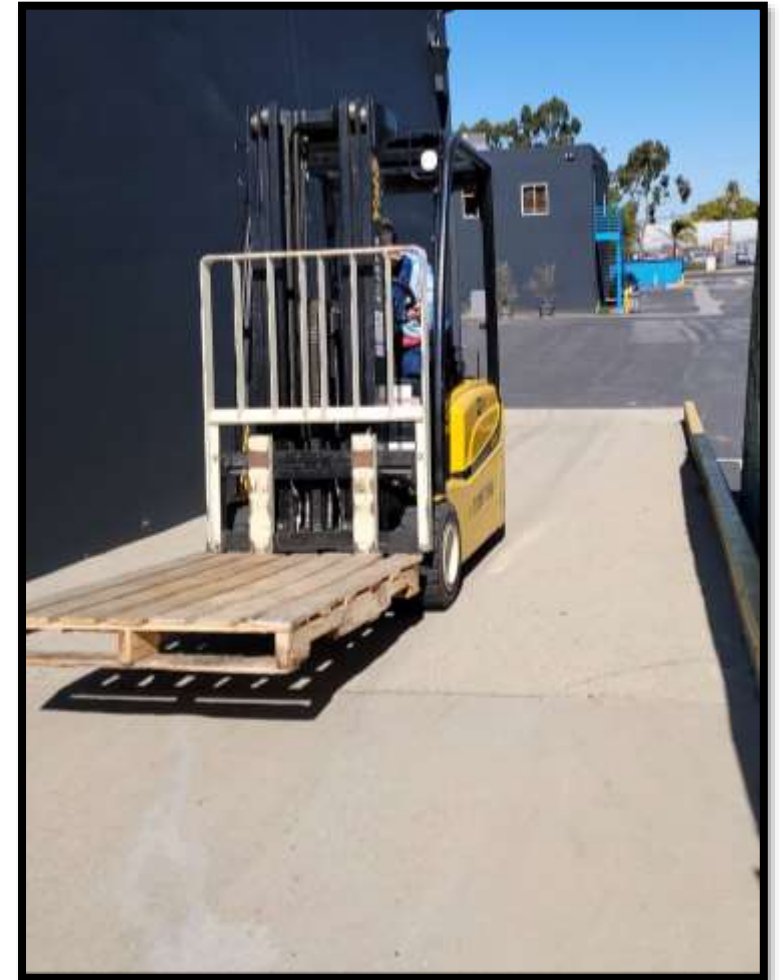




**Inclines:**  
Travel forward



**Downhill:**  
Travel in reverse with  
the load trailing







## **A loaded vehicle will not be moved until the load is safe and secure.**

- Secure the load so that it does not move around.
- Forks shall be placed under the load as far as possible; the load should touch the fork carriage.
- Travel with the mast tilted back to keep the load stable.
- Forks 4-6” off the floor.



Place the load all the way back to the fork's carriage to secure the load and for stability.

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- 1. Do Not Exceed Height Limitation**
- 2. Do Not Exceed Weight Limitations of Your Forklift or Pallet Jack**
- 3. Put the Heaviest Items on the Bottom**
- 4. Stack Pallets Evenly**
- 5. Never Reuse Damaged Pallets**



# Safe Platform

## NO RIDERS WILL BE PERMITTED

unless a safety platform with guardrails is provided.

A harness must be worn if lifted over 4 feet off the ground. Keep feet planted on the cage floor.



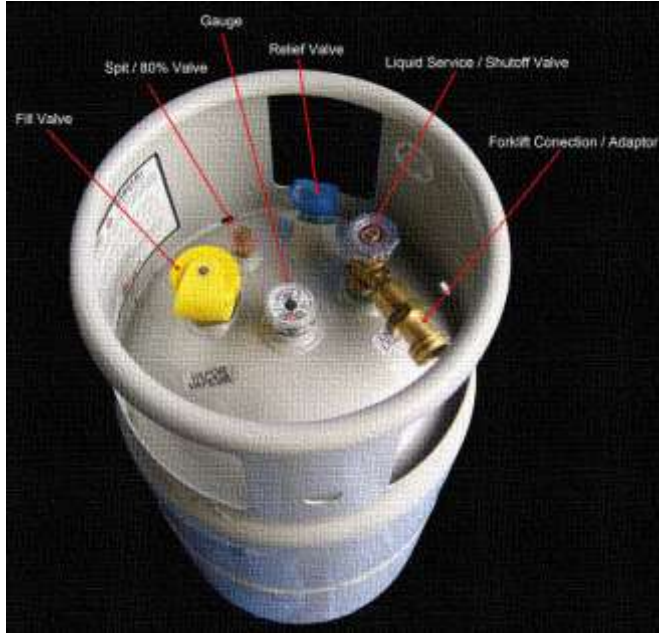
**Stunt driving  
and  
horseplay are not permitted.**



## When a powered industrial truck is left unattended:

- fully lower the fork (or other load engaging attachments)
- neutralize controls;
- shut off power;
- set brakes; and
- block wheels if the truck is parked on an incline.





# Operator Responsibility:

- Operate in a safe manner
- Report damage to supervisor & take out of service until fixed
- Know your load capacity
- Never lift employees with your forklift
- Zero tolerance for horseplay
- Drive within specified speed limits
- No drinking, smoking/vaping while operating heavy equipment
- Never leave your forklift unattended
- Engage the brake prior to dismounting
- Honk horn to communicate with pedestrians or in blind spots
- Never drive with the load blocking your vision
- Know your surroundings & hazards in your work area

