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POWERED INDUSTRIAL TRUCKS (PIT:FORKLIFTS)

OSHA CITATION 29 CFR 1910.178

GLASC May 18, 2022

WHAT IS A POWERED INDUSTRIAL TRUCK?

- Forklift
- Powered Pallet Jack
- Towmotor
- Rough terrain forklift
- Order Picker
- Electric or internal combustion
- Not earthmoving equipment



WHY ARE PITS REGULATED BY OSHA?

- Hazardous to both the operator, pedestrians, and property damage
- Over 100 deaths per year in the United States
- Over 100, 000 injuries



TYPES OF HAZARDS

- Overhead obstructions
- Unsecured loads
- Improper use
- Lack of maintenance
- Surface conditions
- Loading docks
- Overweight loads
- Ramps



WHEN IS TRAINING NEEDED?

- **New operator**
- Refresher training
 - Operator involved in an accident or near miss
 - Operator driving in an unsafe manner
 - Different type of equipment to be used
 - Changes in the workspace
- Every 3 years at a minimum



EQUIPMENT INSPECTION

- What to do before the heavy lifting starts!
 - **Complete the inspection form!**
 - Daily or at the start of the shift
 - Engine condition and fluid levels
 - Look for leaks
 - Broken structural components
 - Check the forks for bends and cracking
 - Rubber parts – tires, hoses, belts, wiring
 - Mast components
 - Operating controls
 - Alarms and lights
 - Nameplate with machine specs
 - Warning labels
- If there is damage, tag the machine out of service!



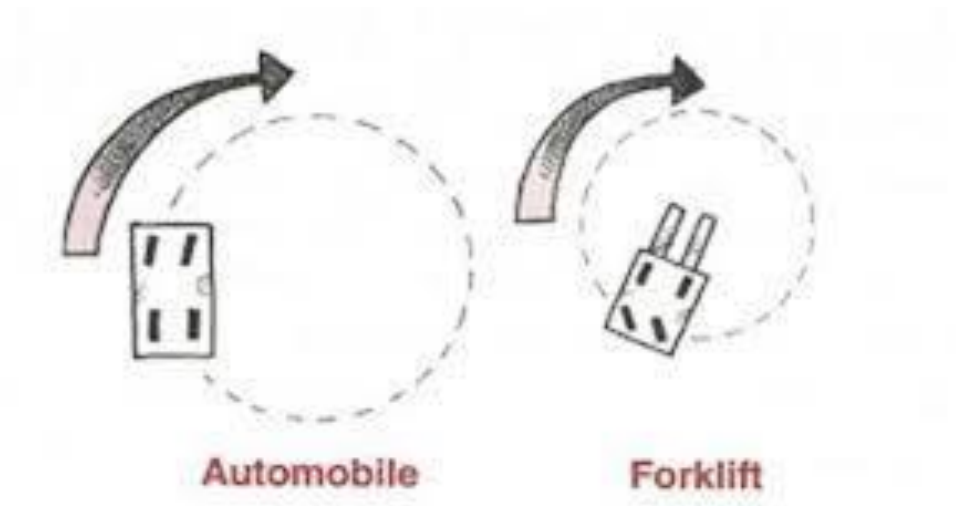
COMMON FEATURES OF A PIT

- Forks – adjustable width, possibly with attachments
- Mast – raise and tilt the load
- Rear wheel or articulated steering
- Controls
 - Steering
 - Control levers - lift, tilt and fork position
 - Foot pedals – throttle, brake, creep
- Seatbelt
- ROPS



HOW IS A FORKLIFT DIFFERENT?

- Similar to a motor vehicle, but significant differences:
- Usually rear wheel steering for maneuverability
 - Very small turning radius
 - Sometimes articulated steering
- Driven as often in reverse as forward
- One hand steering
- **The center of gravity shifts du**



PIT STATISTICS

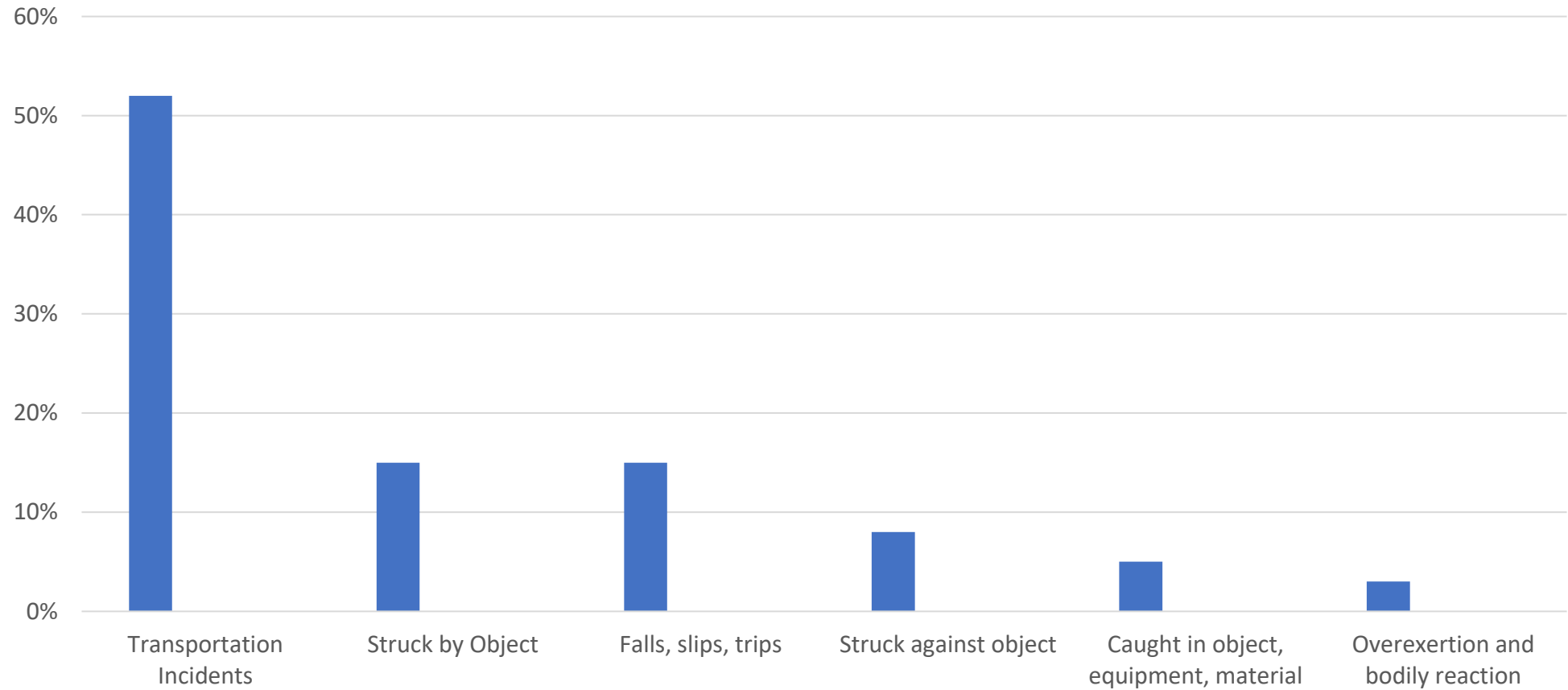
- Forklifts, nonfatal injuries, and illnesses involving days away from Work:
- 2020 Total : All events or exposures: 1,176,340
Forklifts: 7,290
- Median Days Away from Work: All events or exposures: 12 days
Forklifts: 17 days

Source: Bureau of Labor Statistics, U.S.
Department of Labor

PIT STATISTICS

SOURCE: BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR

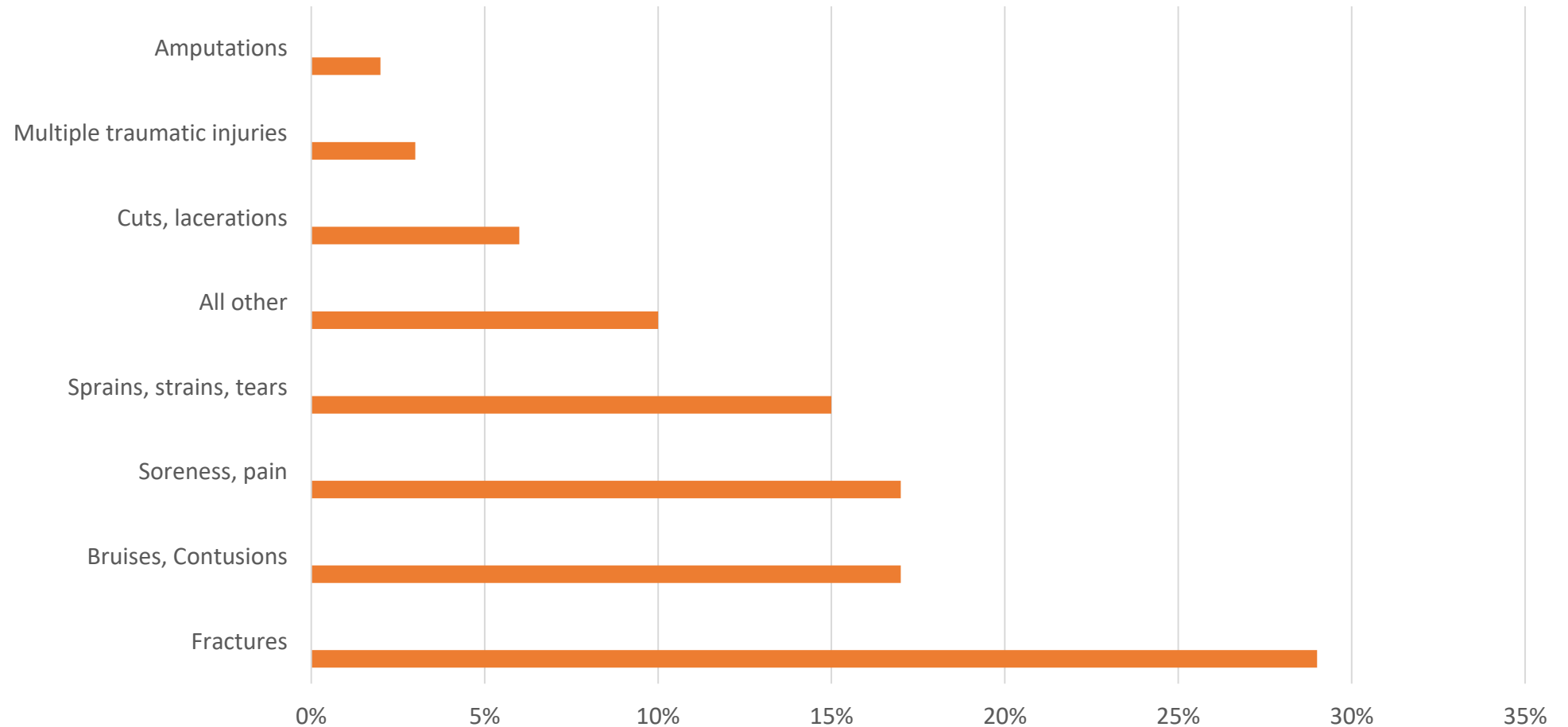
Year: 2020 Event or Exposure



PIT STATISTICS

SOURCE: BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR

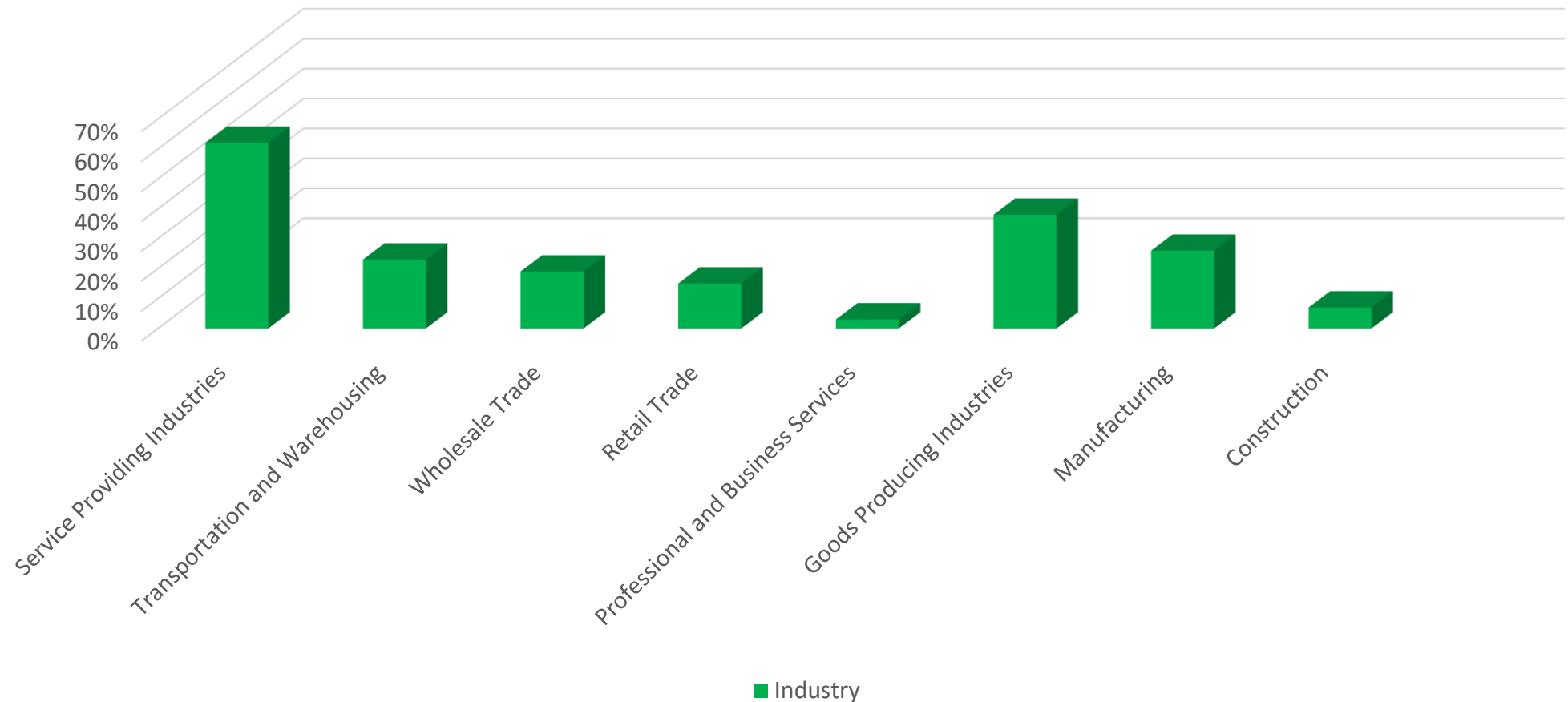
Year: 2020 Nature



PIT STATISTICS

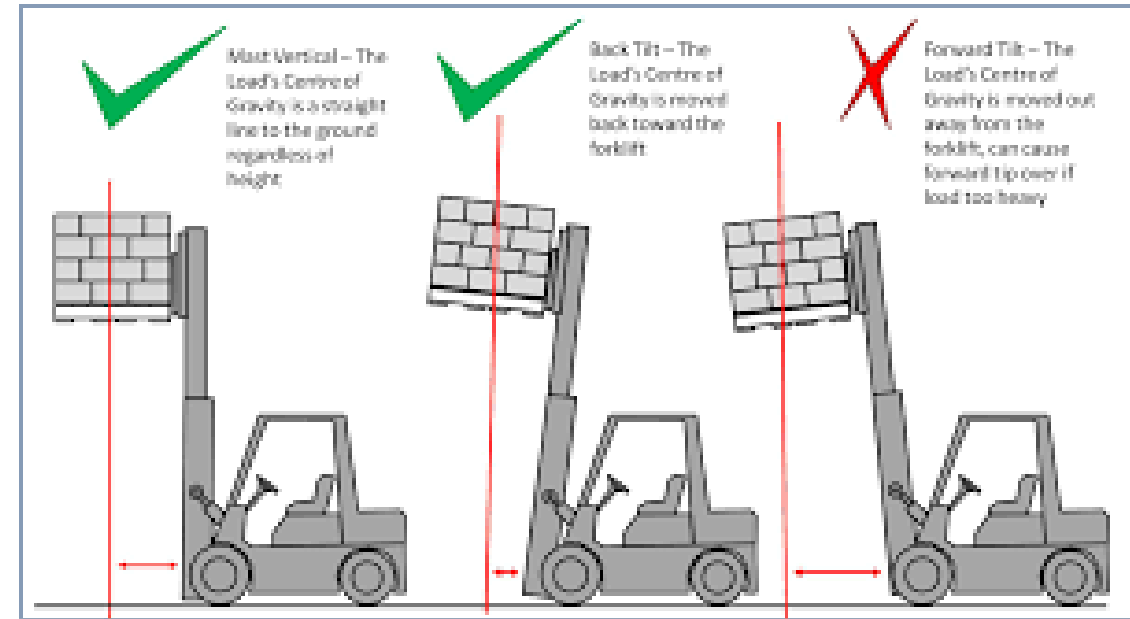
SOURCE: BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR

Year: 2020 Industry



OPERATIONAL HIGHLIGHTS (LOAD HANDLING)

- Approach the load slowly
- Stop and align the forks
- Engage the load
 - Watch the length of the forks
- Lift slowly to elevate
- Tip the forks to manage the weight
- Carry the load low and slow
- Avoid overhead obstructions –
 - Especially doorways



OPERATIONAL HIGHLIGHTS

- Yield to pedestrians
- Travel at speeds that allow you to stop safely
- Drive slowly over wet and uneven surfaces
- Avoid loose debris on surfaces
- At intersections and doors, slow down and use the horn to alert others
- Travel in the direction of greatest visibility
- Smooth steerin



OPERATIONAL HIGHLIGHTS (REFUELING)

- Electric
 - Designate an area for purpose of battery charging.
 - Charge or change batteries in the designated area
 - Get trained on recharging equipment
 - Recognize that heavy loads drain the battery more quickly.
 - Be aware of chemical hazards
 - Acids
 - Alkalis
 - Use correct PPE
 - Tier II reporting
 - No smoking
 - An unseen hazardous atmosphere may exist
 - Flammable hydrogen gas is present during battery recharging.



OPERATIONAL HIGHLIGHTS (REFUELING)

- Some Powered Industrial Trucks have internal chargers: Walk Behinds, Order Pickers

OPERATIONAL HIGHLIGHTS (REFUELING)

- Propane
 - Charge or change cylinders in the designated area
 - Get trained on cylinder handling & storage
 - Be aware of physical hazards
 - Cylinder weight
 - Cold temperature due to the compressed gas
 - Follow the correct removal and replacement sequence
 - Use correct PPE
 - No smoking
 - An unseen hazardous atmosphere may exist
 - Propane gas



OPERATIONAL HIGHLIGHTS (REFUELING)

- Warning signs posted
- Adequate Fire Protection
- Ample and readily available water supply for flushing and neutralizing spilled electrolyte.
- An eyewash able to provide 15 minute flow.
- Spill kit: Soda ash or other neutralization materials in the immediate area.
- A dry chemical, CO2 or foam fire extinguisher.



OSHA'S TOP 5 PIT VIOLATIONS FOR 2021

1. Unsafe Operations:

- Driving with an elevated load, driving too fast, driving too close to platform edges and not following loading dock safety procedures.

2. Failure to provide refresher training:

- Every forklift operator must receive refresher training every three years sooner if they are involved in an accident, near-miss, or when reported for reckless behavior.

3. Missing/inadequate operator certification:

- All forklift operators must have an OSHA-approved forklift certification for the class of forklift they utilize.

OSHA TOP 5 PIT VIOLATIONS FOR 2021

4. Failure to remove unsafe trucks from service

- Whenever a forklift is found to be defective, in need of repair, or in any way unsafe, the truck must be taken out of service until it is restored to a safe operating condition.

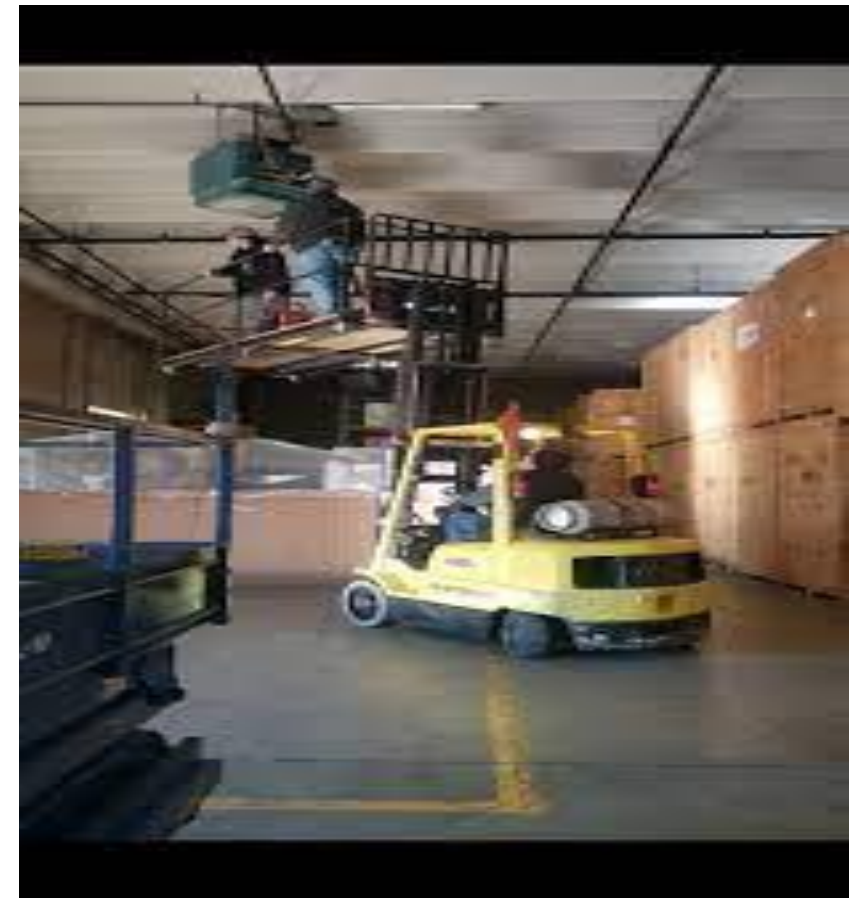
5. No pre-operation inspection

- Forklifts must be inspected prior to use to ensure the safety of operators and detect minor issue before they become expensive repairs.



OSHA FINES FOR PIT VIOLATIONS IN 2021

- Minimum fine was \$9,639
- Maximum penalty was \$13,494.
- Failure to Abate fines were \$13,494.
- Repeated violations fines were \$13,937.



NATIONAL FORKLIFT SAFETY DAY

- June 14th is National Forklift Safety Day
- Register for event:
- <https://www.indtrk.org/national-forklift-safety-day>
- Created by the Industrial Truck Association (ITA)
- Talking point for Forklift Safety at facilities



PIT RESOURCES

- OSHA Regulations: <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.178>
- Training and Reference Materials Library: <https://www.osha.gov/training/library/materials>
- OSHA eTool: <https://www.osha.gov/etools/powered-industrial-trucks/types-fundamentals/power-sources/electrical>

THE BOTTOM LINE

- Operate the equipment safely
- Communicate problems as they arise
- Look for improvement
- Know your responsibilities to yourself and your co-workers
- Be sure you, your co-workers are safe and property is not damaged—we want you ALL to go home in one piece!





QUESTIONS?

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