Chapter 48: Powered Industrial Vehicles

Operating Requirements

1 Purpose

The purpose of these requirements is to ensure powered industrial vehicles (PIVs) are operated safely. They cover the use of PIVs. They apply to workers (as operators, spotters, and receivers), and supervisors.

2 Requirements

2.1 Personnel

Only qualified and authorized workers may operate a PIV. A spotter is required when the operator’s view is obstructed by the load or when operating in a congested area. A receiver is required when the load is to be lifted to or from a second floor or higher.

2.2 Pre-use Inspection

- Before each shift conduct a pre-use inspection (see PIV: Inspection Procedures).

2.3 Pre-lift Review

- Review the lift with spotter and receiver (if required), evaluate and resolve any concerns, and establish a means of communication to be used during the lift.

2.4 Loading

- Stay within the rated capacity
- Keep the heavy end of load toward the backrest
- Tip the load back slightly and check load stability before travel
- Do not exceed two layers of a loose load
- Know what’s behind the load
- Keep forks as wide as possible under a load
- Assess the lift to be performed and determine if the load needs to be secured
- Secure load to pallet rest or backrest if traveling on SLAC roadways or if needed to move load safely
Secure the area beneath the load, using such means as warning tape, cones, or barriers, when the load is to be lifted to or from a second floor or higher

### 2.5 Using Lifting Fixtures and Extensions

- Use lifting fixtures according to manufacturer’s instructions
- Include fixture (except fork extensions) when calculating total mass of load
- When a lift truck is used to elevate personnel, comply with Cal/OSHA regulation (8 CCR 3657)

### 2.6 Using

#### 2.6.1 With or without a Load

- Wear seatbelt
- Travel with forks just high enough to clear obstructions
- Make sure hands are clean and dry
- Stay three truck lengths behind other vehicles
- Avoid and warn pedestrians
- Avoid approaching folks near fixed objects
- Keep hands and feet inside the forklift

#### 2.6.2 Without a Load

- Going uphill or downhill, travel with forks pointed in direction of travel
- Carry no passengers
- Limit speed to about five miles per hour in buildings; 15 on roadways

#### 2.6.3 With a Load

- Going downhill, travel in reverse, with forks pointed uphill and load tilted back
- Limit speed to about five miles per hour
- With a vision-blocking load, drive in reverse or use a spotter (see Section 2.6.4, “On Roadways”)
- Be careful to keep load below overhead obstacles like doorways, roll-up doors, and sprinklers
- Do not raise or lower load while traveling
- Allow plenty of room to maneuver and brake
- When on traveling SLAC roadways, secure load to the PIV
- When the load is to be lifted to or from a second floor or higher, make sure receiver has removed load before moving the PIV
2.6.4 On Roadways

- Consider having the load transported by Facilities, if it is expensive, delicate, large, or otherwise difficult to lift or move.

- Evaluate the travel path and ensure roadway conditions and other factors that may cause problems are assessed. The roads and pathways at SLAC are variable, and may be steep, uneven, potholed, or paved with asphalt. Consider current road closure status, the location of blind spots, narrow roads/pathways, and construction projects that may cause damage or restrict movement.

- Transport the load on a flatbed or other vehicle instead of transporting it by forklift, if possible and appropriate (contact Fleet Services). Use of a truck over a forklift may be a better option when the load
  - Would affect the drivability of the forklift
  - Is not easily secured to the forklift
  - Could possibly be damaged due to road conditions or travel path

- Consider moving the materials/equipment during off hours to avoid interactions with vehicles or pedestrians and bicyclists.

- Use an escort/pilot vehicle when the load
  - Obscures the operator’s vision
  - Can endanger pedestrians and/or bicyclists or vehicles because of its size (for example, extends the width of a lane)
  - Requires the forklift to travel very slowly to transport the item safely

- Consider using an escort/pilot vehicle when the forklift needs to be driven backwards either because the operator’s vision is obstructed or the grade requires it.

**Note** *An escort/pilot vehicle in both the front and back is desirable. If only one is available, position it in front. The travel path must be clearly understood by both drivers, a method of communication agreed to before moving the load, and the escort/pilot vehicle should have flashing lights. SLAC Site Security can provide this service.*

- Select a forklift appropriate for the task. Forklifts operated on shared roadways must have appropriate tires (not designed for warehouse use only and with treads); brake lights; turn signals; and if operating at dusk or night front and rear headlights.

- Forklift operators driving on roadways must not wave vehicles by. If determined appropriate, they should pull over and stop so vehicles can safely pass.

- A spotter is required when
  - The operator’s view is obstructed by the load or
  - Operating in a congested area

**Note** *The spotter does not need to be an additional person with the sole purpose of spotting. Spotters should wear high visibility safety clothing, for example, a safety yellow or orange vest or jacket. A handheld stop/yield sign can help the spotter communicate with pedestrians, bicyclists, and other vehicles.*
2.7 If the PIV Starts to Tip

- DO NOT JUMP from a PIV during a tip-over
- Press the wheel hard to press yourself in your seat
- Brace yourself with your feet
- Go with the tip

2.8 Parking

- Park forklifts
  - Without a load
  - Out of traffic
  - With the tips of the tines directly on the ground
- After parking a PIV
  - Neutralize the controls
  - Apply parking break
  - Chock wheels (when on incline)
  - Remove and secure keys

2.9 Using Pallet Movers (Jacks)

- Push (rather than pull) loads
- Avoid pinching yourself or others between load and wall
- Enter tight spaces load first

3 Forms

The following are forms required by these requirements:

- None

4 Recordkeeping

The following recordkeeping requirements apply for these requirements:

- None

5 References

SLAC Environment, Safety, and Health Manual (SLAC-I-720-0A29Z-001)
- Chapter 48, “Powered Industrial Vehicles”
  - PIV: Inspection Procedures (SLAC-I-730-0A21C-009)

Other Documents