

Forklift Operation SOP

Purpose

To prevent injuries, property damage, and product/equipment loss by standardizing safe forklift operation, inspection, and shutdown practices.

Scope

Applies to all employees, contractors, and visitors in any area where forklifts or powered industrial trucks (PITs) operate, including shops, warehouses, yards, and job sites. Covers typical counterbalance, rough-terrain, and warehouse-style forklifts (electric, diesel, or LPG/propane).

Responsibilities

Company/Management

- Provide compliant forklifts, maintenance, and repairs.
- Ensure operator training, evaluation, and authorization before anyone operates a forklift.
- Enforce traffic rules, pedestrian controls, and discipline for unsafe acts.

Supervisors/Foremen

- Verify only authorized operators use forklifts.
- Ensure pre-shift inspections are completed and documented.
- Correct hazards (traffic flow, lighting, floor condition, dock plates, pedestrian routes).
- Stop work immediately if conditions are unsafe.

Authorized Forklift Operators

- Perform and document pre-operation inspection every shift (and after changing trucks).
- Operate within rated capacity and forklift data plate limits.
- Use seat belt/restraint every time (no exceptions).
- Report defects, near misses, and incidents immediately; tag out unsafe equipment.

All Employees/Pedestrians

- Stay out of forklift travel lanes when possible.
- Make eye contact with operators, obey spotters, and never walk under raised loads.

Pre-operation inspection

Complete at the start of each shift and whenever you switch forklifts. If a safety-critical defect is found: remove from service (tag out) immediately.

A. Walk-around (engine OFF)

- Data plate present/legible; capacity matches attachments in use.
- Forks: cracks, bends, excessive wear, locking pins in place.
- Mast, carriage, chains, rollers: damage, excessive wear, proper lubrication.
- Hydraulics: leaks, damaged hoses, fittings, cylinders.
- Tires/wheels: condition, inflation (pneumatic), chunking (solid), lug nuts.
- Overhead guard: damage or missing bolts.

- Seat belt/restraint: present, functional, not frayed.
 - LPG/propane (if applicable): tank secure, correct orientation, hoses/regulator OK, no leaks/odor.
 - Battery (electric): cables intact, connector OK, no corrosion, electrolyte levels per manufacturer, no damage.
 - Fluids (IC engines): oil, coolant, brake fluid (as applicable); no puddles under truck.
 - Fire extinguisher (if equipped): charged and accessible.
- B. Functional check (engine ON, clear area)**
- Steering: smooth response, no excessive play.
 - Brakes: service brake and parking brake hold.
 - Accelerator/inching: smooth control.
 - Horn, backup alarm, lights, strobes: operational.
 - Mast functions: lift/lower, tilt, side shift, attachments operate smoothly without leaks or jerking.
 - Gauges/indicators: normal readings; no warning lights.
 - Documentation
 - Record inspection on the daily checklist.
 - Note defects and report to supervisor/maintenance.

Operating procedures

1) Authorization and basic rules

- Only trained, evaluated, and authorized operators may operate a forklift.
- No riders (unless the forklift has a manufacturer-installed passenger seat and belt).
- Seat belt/restraint required at all times.
- Keep hands/arms/legs inside the operator compartment.
- Never operate under the influence of alcohol/drugs or when fatigued/medically unfit.

2) Start-up and travel

- Adjust seat and mirrors; fasten seat belt; verify area is clear.
- Travel at a controlled speed suitable for conditions—slow is professional.
- Sound horn at blind corners, doorways, aisles, and intersections.
- Maintain safe following distance (at least 3 truck lengths at low speed).
- Keep forks 4–6 inches off the ground while traveling, tilted slightly back.
- If the load blocks forward view: travel in reverse or use a spotter.
- Keep clear of edges, drop-offs, trenches, soft ground, and unstable surfaces.

3) Load handling (the “*don’t get clever*” rules)

- Confirm load weight, dimensions, and stability before lifting. If you don’t know the weight, don’t lift it.
- Never exceed rated capacity; consider attachments and load center (capacity drops fast).
- Square up to the load, level forks, insert fully, then lift smoothly.
- Tilt mast back slightly to stabilize; keep load low while moving.
- Avoid sudden starts/stops/turns, tip-overs happen in a blink.
- Never lift or carry an unbalanced, loose, or elevated load unless properly secured.
- Don’t use forks as pry bars, pushers, or to “bump” loads into place.

4) Turning, ramps, and grades

- Slow down before turning; turn smoothly—no sharp turns at speed.
- Keep load up grade when traveling on ramps:
 - Loaded: drive forward up, reverse down (load uphill).
 - Unloaded: reverse up, drive forward down (forks downhill).
- Do not turn on a ramp unless the ramp is designed for it and you can do it safely.

5) Docks, trailers, and platforms

- Confirm dock plates/boards are rated, properly placed, and secured.
- Ensure trailer wheels are chocked and/or trailer is restrained; confirm dock lock (if equipped).
- Verify trailer floor integrity and •lighting/ventilation.
- Maintain safe distance from dock edges; •avoid “popping” plates.

6) Lifting people (high risk—restricted)

- Do not lift people on forks or pallets.
- Only lift personnel using an approved man basket/platform designed for forklifts, with a separate procedure, fall protection as required, and a spotter.

7) Fueling/charging (basic safety)

LPG/Propane:

- Shut off engine; close tank valve; no •smoking/open flames; check for leaks.
- Change cylinders only if trained; ensure correct orientation and secure mounting.

Electric (Battery Charging):

- Wear required PPE (face shield/goggles, gloves) if handling batteries.
- Ventilate charging area; keep sparks/flames away.
- Connect/disconnect with charger OFF; •follow manufacturer instructions.

Parking and shutdown

- Park only in designated areas and never block exits, fire equipment, walkways, or traffic lanes.
- Stop on a level surface when possible.
- Lower forks fully to the ground; level forks; tilt forward until resting.
- Neutralize controls; set parking brake.
- Turn off power; remove key (or disable access per company policy).
- For LPG: close tank valve (per site policy/manufacturer).
- Chock wheels if parked on any slope or if required by site conditions.
- If forklift is unsafe/defective: tag out and report immediately.

Hazards and controls

Tip-over (lateral/forward)

- Controls: seat belt, slow turns, keep load low, don't exceed capacity, avoid uneven surfaces, follow ramp rules.

If tip-over begins: stay in the cab, brace feet, hold steering wheel, lean away from the fall—do not jump.

Struck-by / pedestrian impacts

- Controls: pedestrian walkways, horns at intersections, lights/alarms, speed control, spotters, eye contact rules, no phone use while walking in forklift lanes.

Crush/pinch points (mast, carriage, between forklift and objects)

- Controls: keep body inside cab, maintain clearance, never stand between forklift and fixed object, use spotter in tight areas.

Falling loads

- Controls: inspect pallets, secure unstable loads, correct fork spacing, full insertion, smooth handling, don't travel with elevated loads.

Overhead hazards (doors, racks, sprinklers, power lines)

- Controls: know clearance, keep mast lowered while traveling, spotter near overhead hazards, maintain required distances from energized lines.

Carbon monoxide/exhaust (IC forklifts indoors)

- Controls: ventilation, CO monitoring where needed, minimize idle time, use electric indoors when possible, maintain engines.

Battery acid / electrical hazards

- Controls: PPE for charging/maintenance, eyewash access, no metal jewelry, proper charging practices.

Propane/fire hazards

- Controls: no smoking, leak checks, proper cylinder handling/storage, fire extinguisher access.

Slips/trips and surface instability

- Controls: keep floors clear/dry, repair potholes, slow down on gravel/soft ground, avoid edges and drop-offs.

Noise/visibility/lighting

- Controls: adequate lighting, clean windshields/mirrors, hi-vis where required, keep work areas organized.

Company:

State:

Version: 1.0

Effective Date: _____

Approved By: _____