

# Forklift Operations Plan

It's hard to imagine any tool more important to material handling than the powered industrial truck- the forklift. Like many companies, Uchiyama Manufacturing America LLC relies on these versatile vehicles to load, unload, and move stock and other materials.

This written Forklift Operation Program establishes guidelines to be followed whenever any of our employees work with powered industrial trucks at this company. The rules established are to be followed to:

- Provide a safe working environment
- Govern operator use of powered industrial trucks
- Ensure proper care and maintenance of powered industrial trucks

The procedures here establish uniform requirements designed to ensure that powered industrial truck safety training, operating, and maintenance practices are communicated to & understood by the affected employees. These requirements also are designed to ensure that procedures are in place to safeguard the health and safety of all employees.

It is our intent to comply with the requirements of OSHA'S 29 CFR 1910.176 and 1910.178. These regulations have detailed requirements for powered industrial truck operator training and for powered industrial truck operations.

## ***Administrative Duties***

The Projects Environment & Safety Manager(PESM) is our Forklift Operation Program Coordinator, acting as the representative of the plant manager, who has overall responsibility for the plan. Copies of this written program may be reviewed in the Safety Office, and on the shared drive on the floor computers.

## ***Powered Industrial Trucks at Our Workplace***

Uchiyama Manufacturing America LLC uses these powered industrial trucks as follows:

| Make and Model: | Class and Designation:         | Quantity: | Purpose and Location: |
|-----------------|--------------------------------|-----------|-----------------------|
| Toyota Reach    | 5000LB Electric                | 1         | Rubber MFG            |
| Toyota          | 5000LB Electric                | 1         | Shipping              |
| Toyota          | 5000LB Electric Extended Forks | 1         | Gasket Production     |
| Toyota          | Walkie Stacker                 | 1         | Gasket Production     |
| Toyota Reach    | 3500LB Electric                | 1         | Shipping              |

## ***Training***

Supervisors will identify new employees in their respective departments and make arrangements with department management to schedule training.

Before we begin training a new employee, our Forklift Operation Program Administrator, The PESM and/or HRM, determines if the potential powered industrial truck operator is capable of performing the duties necessary to be a competent and safe driver. This is based upon his/her physical and mental abilities to perform the job functions that are essential to the operation of the vehicle.

These capabilities include the level at which the operator must:

- See and hear within reasonably acceptable limits, (this includes the ability to see at a distance and peripherally, and in certain instances, it is also necessary for the driver to discern different colors, primarily red, yellow, and green)
- Endure the physical demands of the job
- Endure the environmental extremes of the job, such as the ability of the person to work in areas of excessive cold or heat. An operator must be able to climb onto and off of a truck, to sit in the vehicles for extended periods of time, and to turn his/her body to look in the direction of travel when driving in reverse.

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Once our Administrator determines that a potential operator is capable of performing powered industrial truck duties, the PESM or authorized instructor will conduct initial training and evaluation: These instructor(s) have the necessary knowledge, training, and experience to train new powered industrial truck operators. Their qualifications include: Certification as a trainer through the National Safety Council.

## ***Initial Training***

During the operator's initial training, the instructor(s) combine(s) both classroom instruction and practical training. UMA uses the National Safety Council Lift Truck Operator guide to train its employees.

Our classroom instruction includes a lecture, video, discussion, and a test that must be passed with a grade of 80% or greater

The classroom instruction covers the following topics:

- OSHA Regulations
- Lift Truck Design and Operating Principles
- Pre-Start Inspection and Preventive Maintenance
- Worksite Inspections
- Picking up a load
- Delivering a load
- Lift Truck Operator Safety Skills

## **WORKPLACE-RELATED:**

- Surface conditions where the vehicle will be operated;
- Composition of loads to be carried and load stability;
- Load manipulation, stacking, and unstacking;
- Pedestrian traffic in areas where the vehicle will be operated;
- Narrow aisles and other restricted places where the vehicle will be operated;
- Hazards associated with forklifts and locations (See Appendix A)

Our practical training includes exercises by the trainee for each forklift they will operate. All powered industrial truck operators are trained and tested on the equipment they will be operating before they begin their job. Our practical training covers the following:

- Recognize lift truck controls
- Conduct a pre-shift safety inspection
- Conduct a worksite inspection
- Read a data plate
- Travel with a load
- Travel without a load
- Set down a load
- Pick up and set down a load in a narrow aisle
- Shut down a lift truck

Each type of powered industrial truck has a different "feel" to it, and that makes operating it slightly different from operating other industrial trucks. The work areas where these trucks are being used also present particular hazards. For these reasons, it is impractical to develop a single "generic" training program that fits all of our powered industrial trucks. Accordingly, during training, Uchiyama Manufacturing America LLC covers the operational hazards of our powered industrial trucks, including:

- General hazards that apply to the operation of all or most powered industrial trucks;
- Hazards associated with the particular make and model of the truck;

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- Hazards of the workplace in general; and
- Hazards of the particular workplace where the vehicle is operated

Training must be specific for the types of trucks that associates will be authorized to operate and for the type of workplace in which the trucks will be operated.

## ***Training Certification***

After an employee has completed the training program, the instructor will determine whether the potential driver can safely perform the job. At this point, the trainee will take a performance test or practical exercise through which the instructor(s) will decide if the training has been adequate. All powered industrial truck trainees are tested on the equipment they will be driving.

The PESM is responsible for keeping records certifying that each employee who has successfully completed operator training and testing. Each certificate includes the name of the driver, the date(s) of the training, and the name of the person who did the training and evaluation.

Training is done in house.

## ***Performance Evaluation***

Each certified powered industrial truck operator is evaluated at least once every 3 years to verify that the operator has retained and uses the knowledge and skills needed to drive safely. This evaluation is done by the PESM prior to their training expiration and will review and retrain that individual as deemed necessary. If the evaluation shows that the operator is lacking the appropriate skills and knowledge, the operator is retrained by our instructor(s).

## ***Refresher Training***

Refresher training is triggered by any of the following situations:

- If the operator is involved in an accident or a near-miss incident;
- If the operator has been observed driving the vehicle in an unsafe manner;
- When the operator is assigned to a different type of truck;
- If it has been determined during an evaluation that the operator needs additional training
- When there are changes in the workplace that could affect safe operation of the truck.

This could include a different type of paving, reconfiguration of the storage racks, new construction leading to narrower aisles, or restricted visibility.

## ***Current Certified Truck Operators***

Under no circumstances shall an employee operate a powered industrial truck until he/she has successfully completed this company's powered industrial truck training program. Regardless of claimed previous experience, all new operators must at least undergo a performance evaluation.

## ***Inspections***

### ***Pre-Operational Inspection Procedures***

Prior to the start of each shift, the company requires operators to perform pre-operational checks to ensure the safe operating condition of the vehicle. Operators shall perform the inspection using the daily checklist.

The PESM will provide new forms for future months as needed.

If a form is lost or illegible obtain a new form from the PESM.

If an item on the checklist does not apply, mark it N/A. We also require that operators fill out the comment section thoroughly and accurately if there are any operational or visual defects. That way our Maintenance Dept. can pinpoint and repair the problem before the truck becomes unsafe to operate.

If a completed checklist form is not present on the powered industrial truck, then the truck may not be operated until a checklist is completed.

If the powered industrial truck is safe to operate, the operator must:

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- Place the completed checklist form in the holder provided on the vehicle. The checklist must remain in the vehicle's holder for the duration of each shift. This serves as a visual notice to all area operators that this piece of equipment was inspected at the beginning of the shift and they need to perform a preoperational check in addition to this check to validate the checklist. Each additional operator must initial the check sheet prior to operating the forklift.
- At the end of each month maintenance will turn the checklist in to the PESM, who will review the checklists for accuracy, completeness, and any open deficiencies that require attention.

If the powered industrial truck is unsafe to operate, the operator is to:

- Remove the key from the powered industrial truck;
- Place a DANGER DO NOT OPERATE tag on the steering wheel of the powered industrial truck;
- Report the problem to his/her supervisor;
- Not use the truck until the problem has been identified and corrected. No one else may use the truck until the problem has been corrected

Appropriate disciplinary action will be enforced for anyone violating policy. (See Disciplinary Actions, Appendix B)

PESM is responsible for retaining all daily truck inspection checklist forms for each vehicle

## ***Periodic Inspection Procedures***

Periodic inspections are in conjunction with the particular powered industrial truck's maintenance or service schedule. Maintenance schedules are normally expressed in days in operating or running hours. A third party vendor perform(s) inspection and maintenance quarterly. Most manufacturers' operator instruction manuals contain the recommended maintenance schedule. Inspections and maintenance or repair beyond the recommended service schedules are done by authorized workshops and/or service technicians.

## ***Operating Procedures***

Powered industrial trucks can create certain hazards that only safe operation can prevent. That's why we have created sets of operating procedures. Our operating procedures are as follows:

### ***Driving***

Driving a powered industrial truck is fundamentally different than driving a car or other trucks. In fact, powered industrial trucks:

- Are usually steered by the rear wheels
- Steer more easily loaded than empty
- Are driven in reverse as often as forward
- Have a center of gravity toward the rear, shifting to the front as the forks are raised

Unlike cars, some powered industrial trucks have a greater chance of tipping over when suddenly turned. Because of the design of powered industrial trucks, they have a very short rear wheel swing. This means that, at high speeds, sudden turns can tip them and could result in serious injury and damage. Speed can cause the center of gravity to shift dramatically. Similarly, speeding over rough surfaces can cause tipping.

Although structurally different than cars, powered industrial trucks, like cars, can collide with property and people. Therefore it is our policy for all operators to follow these driving procedures:

- Observe all traffic regulations, including plant speed limits.
- Yield the right of way to pedestrians and emergency vehicles.
- Maintain safe distances from powered industrial trucks ahead. (typically three truck lengths)
- Travel at speeds that will permit vehicles to stop safely at all times, under all road and weather conditions.
- Avoid quick starts/changes of direction.
- Turns must be negotiated by reducing speed and turning the steering wheel with a smooth, sweeping

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motion.

- Maintain forks in proper position.
- Drive properly in reverse.
- Do not engage in stunt driving and horseplay.
- Drive slowly over wet or slippery floors.
- When the forks are empty, travel with the forks at a negative pitch as low to the floor as practical. Adjust the height of the forks to a safe level when the operating terrain warrants.
- When operating a narrow aisle reach truck that is unloaded, do not travel until the forks are fully retracted and positioned at a negative pitch as low to the floor as practical.

## ***Load Lifting and Carrying***

Powered industrial trucks can lift only so much. Each truck has its own load capacity, which is indicated on the data plate. Powered industrial trucks also have three-point suspension that forms an imaginary triangle from the left front wheel to the right front wheel to the point between the two back wheels. The center of gravity for a powered industrial truck must lie somewhere within this triangle or else the truck will tip over. The load and its position on the forks, as well as traveling speed and slopes, all affect the center of gravity. Loads themselves have gravity with which to contend. Loads need special care so that they do not fall. In order to prevent tipping and load falling hazards, we have established the following load lifting and carrying procedures:

- Handle loads only within the capacity rating of the truck.
- Do not allow anyone to stand or pass under the elevated portion of any truck whether empty or loaded.
- Do not start a powered industrial truck or operate any of its functions or attachments from any position other than from the designated operator's position.
- Keep a clear view of the path of travel and look for other traffic, personnel, and safe clearances. If the load being carried obstructs forward view, travel with the load trailing.
- When traveling with a load on the forks, travel with the load as low to the floor as practical with the load tilted back slightly for improved stability.
- When ascending or descending a grade or incline, drive with the load positioned upgrade or uphill when the truck is loaded.
- When unloading or loading all length semi-trailers:
  - Check condition of dock leveler plate and trailer floor before entering.
  - Install Clam Shell locks on every trailer prior to entry with a fork lift.
  - Check the rear wheels of the trailer prior to loading or unloading.
  - Be sure the semi-tractor is coupled to the trailer, or the fixed jack on the front of the trailer is lowered to the ground to prevent these two trailers from tipping forward.
  - Set the brakes of the semi-tractor.
- Use the following backup procedure:
  - Pivot at the waist and inspect the area of operation in the rear of the fork truck, watching for obstructions and pedestrians.
  - Blow the horn to alert any pedestrians that may or may not be visible.
  - Engage the directional lever to the reverse position.
  - Concentrate on the removal of the forks from the load to avoid any load disturbance, as you back the fork truck out of the load.
  - Stop the fork truck 18" to 24" away from the load's resting location and lower the forks to the proper travel height and angle.
- During load placement:

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- Square the fork truck with the load resting location.
  - Stop the fork 18" to 24" away from the load resting location.
  - Raise the load to proper entry height.
  - Drive forward with the load and position the load over its resting location.
  - Lower the load to a height of 2-4" if possible.
  - Tilt the load forward to a level position.
  - Lower the load to its resting platform
  - Back up the unit using proper back up procedures and sequence.
- Do not attempt to move loads with broken pallets.
- During load retrieving:
- Tie together unstable loads.
  - Square the fork with the load resting location.
  - Stop the fork truck 18" to 24" away from the load resting location.
  - Raise the forks to the proper entry height.
  - Slide the forks into the load and maintain the clearance around the forks to avoid load disturbance. Be sure to place the heaviest part of the load closest to the backrest.
  - Raise the load so it is completely suspended from its resting platform. Be sure to support and center the load so that it will not fall forward or sideways.
  - Tilt the load back.
  - Visually inspect the rear area of the fork truck to ensure no pedestrians are behind or around the unit.
  - Back up the unit using proper back up procedures and sequence.
  - Back up the fork 18" to 24" and stop.

## ***Fuel Handling and Storage***

We currently do not use any fork trucks with propane, gas, or diesel fuels.

All employees who handle or use flammable liquids are instructed by PESM in their safe handling and use and made aware of specific OSHA requirements for what they are doing with the liquids. More specifically, employees are instructed in the following procedures:

## ***Battery Charging and Changing***

Batteries present a hazard because they contain corrosive chemical solutions, either acid or alkali. During recharging, a worker may be exposed not only to the acid solution but also to hydrogen gas that is produced during the recharging process. Because of the hazards involved in battery charging, only personnel who have been trained in the appropriate procedures, understand the dangers involved, and know the appropriate precautions to take may be allowed to perform this work.

UMA has a forklift charging area in the Rubber Mfg. entrance area. \*This area is separate from the main aisles.

Good housekeeping procedures are essential. Keep the area clean. We also maintain a moderate temperature range suitable for battery maintenance.

Uchiyama Manufacturing America LLC has installed an eyewash station for workers.

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Smoking is prohibited in the plant and more so in the charging areas. Battery charging generates hydrogen gas that may present an explosive hazard. This precaution also applies to open flames, sparks, or electric areas. An effective means of fire protection must be provided in the area.

With this information in mind, we have established the following battery charging procedures:

- When removing battery covers to add or inspect electrolyte levels, wear proper goggles, face shield, rubber gloves, and an apron. **Protective equipment is not required when filling batteries equipped with an automatic filler.**
- Wear appropriate foot protection where there is the risk of foot injury.
- Powered industrial trucks will be put on charge during off shifts and weekends. NOTE: During normal production operation, the powered industrial truck may remain plugged into the battery when left unattended.
- Do not smoke in the battery charging area.
- Wear hearing protection in the battery charging area.
- Prevent open flames, sparks, and electric arcs in the battery charging area.
- Keep tools and other metallic objects away from the tops of uncovered batteries.
- Keep the charging area clean.
- Keep the charging area work surface dry and slip-resistant.
- When batteries are being charged, keep the vent caps in place to avoid electrolyte spray.
- Take care to assure that vent caps are functioning. The battery (or compartment) cover(s) must be open to dissipate heat.
- Clean up spilled materials or liquids in the charging area immediately.
- Securely position and set the brakes of a truck before attempting to charge the battery.
- Know where the eyewash station is located.
- Know where the first aid kit is located.

## ***Personal Protective Equipment (PPE)***

We have assessed our workplace and determined that the hazards which threaten our operators include:

- Foot compression or puncture
- Slipping
- Extreme heat or cold if operating outside
- Hand cuts, punctures, abrasions, and crushing
- Electricity
- Material handling
- Falling objects
- Bumping head or other body part against fixed object
- Noise
- Falling out of the powered industrial truck
- Being crushed by a tipped over powered industrial truck

For this reason we require that our powered industrial truck operators wear the following PPE and equipment:

- Safety glasses
- Goggles
- Face Shields
- Safety shoes/boots
- Gloves

NOTE: According to a letter of interpretation dated 1/18/94 about ASME/ANSI B56.1-1988, if a powered

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industrial truck is equipped with a seat belt or other restraining device, the operator must use these devices. This will reduce the risk of entrapment of the head and torso between the truck and the ground.

All operators required to wear this equipment are trained:

- When PPE is necessary
- What PPE is necessary
- How to properly put on, take off, adjust, and wear PPE
- Limitations of the PPE
- Proper care, maintenance, useful life, and disposal of PPE.

See the Written Personal Protective Equipment Program for more details.

## ***Pedestrians***

Because powered industrial trucks are typically used near pedestrians, we require both pedestrians and powered industrial truck operators to watch out for each other. UMA has a designated aisle for forklift operations (center aisle). Pedestrians are to walk on the outside aisles and behind the guardrails.

All powered industrial truck operators must:

- Yield the right of way to pedestrians and emergency vehicles.
- Sound the horn at all intersections and corners to warn pedestrians
- When backing up pivot at the waist, inspect the area of operation to the rear of the powered industrial truck, watching for obstructions and pedestrians and blow the horn to alert any pedestrians that may or may not be visible.
- When retrieving a load and before backing up, visually inspect the rear area of the powered industrial truck to ensure no pedestrians are behind or around the unit.
- Never allow riders on any powered industrial truck.
- Do not allow pedestrians to walk under loads.
- Do not allow anyone to place their arms or legs between the uprights of the mast or outside the running lines of the truck.
- Do not drive trucks up to anyone standing in front of a bench or other fixed object.

All pedestrians must:

- Use designated pedestrian walkways.
- Look out for powered industrial trucks and give them the right of way.
- Listen for horns and other warning devices such as blue lights if installed.
- Use any provided mirrors to assist with vision around corners.
- Do not walk in front of, behind, or beside a powered industrial truck.
- Never walk or stand under a raised load.
- Do not hitch a ride on a powered industrial truck.
- Not enter an adjacent aisle to where a forklift is working.

## ***Maintenance***

Investing time and effort into the proper upkeep of our equipment results in day-to-day reliability. Keeping up with the manufacturer's recommended maintenance and lubrication schedules, and completing the proper records, will also increase our trucks' longevity and enhance its resale value.



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The Maintenance Department complete(s) a receiving or delivery inspection whenever our company purchases powered industrial trucks, and they perform the recommended "breaking in" inspections and maintenance. Periodic maintenance (those completed monthly, quarterly, every 6 months, or annually) is done by a factory-trained expert or a dealer. The PESM retains all maintenance records.

## ***Appendices***

### *Appendix A-Hazards of Powered Industrial Trucks and Our Workplace*

Hazards associated with the locations where our powered industrial trucks are used:

| Make and Model:              | Purpose and location: | Location hazards:  |
|------------------------------|-----------------------|--|
| Toyota (8BRU) Reach Electric | Rubber MFG            | Narrow Aisles, Struck by falling objects, pedestrians. Do not enter MEK area NL-24 with forklift.  |
| Toyota Electric (8FBCU)      | Shipping              | Narrow Aisles, struck by falling objects, pedestrians around shipping, loading and unloading shelves, struck by falling object to other people while performing stacking. Control pedestrian traffic while performing in narrow aisles. Do not enter MEK area NL-24 with Forklift.           |
| Toyota Electric (7FBCU)      | Gaskets               | Struck by, narrow aisle, pedestrians in area, falling loads. Do not enter MEK area NL-24 with forklift.  |
| Toyota Walkie Stacker (7BWS) | Metal Press           | Pedestrians struck by falling objects.   |
| Toyota Reach (9BRU)          | Shipping              | Narrow aisles, struck by falling objects, pedestrians around shipping, loading and unloading shelves, struck by falling objects to other people while performing stacking. Control pedestrian traffic while performing stacking in narrow aisles. Do not enter MEK area NL-24 with forklift. |

General hazards that apply to the operation of all or most of our powered industrial trucks:

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>→ Tip overs</li> <li>→ Struck by vehicle/falling object</li> <li>→ Hand, foot, and head hazards</li> <li>→ Elevated employees (falling hazard)</li> <li>→ Control activation</li> <li>→ Improper equipment usage</li> </ul> | <ul style="list-style-type: none"> <li>→ Lost control</li> <li>→ Flying objects and particles</li> <li>→ Speeding</li> <li>→ Obstructed view</li> <li>→ Noise</li> <li>→ Vehicle overloaded</li> </ul> |
|--|--|

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## *Appendix B-Attachments*

### Disciplinary Actions

Operating a forklift without a license : Terminable Offense

Operating a forklift with an expired license : Reevaluate, Train, and reissue License

Operating a forklift that is tagged out : Terminable Offense

Not reporting an accident : 1st offense : Decertify, Recertify

2nd offense : W/I one year - terminate

Operating a forklift in an unsafe manner: 1st offense - Decertify, Recertify

2nd offense - W/I one year - terminate

Operating a forklift without the proper paperwork completed (pre-use inspection):

1st Offense: Safety warning ticket

2nd offense - Decertify, Recertify

3rd offense - W/I one year - Terminate