



Industrial Performance Services

Industrial Tubular Catalyst Services



# POWERED INDUSTRIAL TRUCKS – FORKLIFTS PROCEDURE

# Powered Industrial Trucks – Forklifts Procedure

January 2023

## Powered Industrial Trucks (Forklifts)

### GENERAL

This procedure provides guidance for the protection of personnel engaged in powered industrial truck (forklift) operations or working area of such operations.

### DEFINITIONS

Powered Industrial Trucks – A fork truck, forklift, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines.

### LICENSING REQUIREMENTS

The license will be issued for the forklift on which the operator is trained and should be renewed yearly by training operations rules, the manufacture's operation's manual, and by passing a manipulative test.

The person licensed must read and understand the manufacturer's operator's manual.

Formal instruction shall be given to operators including lecture, discussion, interactive computer learning, videos, and written materials.

Practical training shall also be given by instructor demonstrations and trainee exercises. Operator evaluation - critiques required.

Upon successfully completing these requirements, a record will be established for the operator using Attachment ***HSE.FOR.Equipment Operator Certification Record***, and the equipment operator will be issued a license, see Attachment ***HSE.FOR.Forklift Certification***.

A training card reflecting forklift operator certification will be issued to the employee. Employee must have this card on his/her person while operating the forklift.

Re-certification required every 3 years.

All trainers must have the knowledge and ability to teach and evaluate operators.

### MEDICAL EVALUATIONS

The operator must be physically and mentally fit and not engage in any practice, which would divert his attention while actually operating a piece of the equipment. Certain physical requirements must be met for all equipment operators in order to provide for the safety of personnel, equipment, and the general public during any lifting operation.

Operators shall meet the following physical qualifications prior to operating any mobile lifting equipment.

Have vision of at least 20/30 Snellen in one eye and 20/50 in the other, with or without glasses.

Be able to distinguish red, green, and yellow, regardless of position of color.

Hearing, with or without hearing aid, must be adequate for the specific operations.

A history of epilepsy or of a disabling heart condition shall be sufficient reason for disqualification. A statement must be obtained from a physician stating that this condition is under control and will not interfere with normal operation of equipment.

## **OPERATOR TRAINING**

Only trained and authorized operators shall be permitted to operate an industrial power truck (forklift). Those authorized employees will demonstrate their ability to operate the forklift and a license shall be issued. The project manager will identify who will be the licenser for the project.

Training must include forklift operating instructions, use of controls, capacity, and load stability as a minimum.

All trainers must have the knowledge and ability to teach and evaluate operators.

Mandatory refresher training shall be provided to the operator when: the operator has been observed to operate the vehicle in an unsafe manner, the operator has been involved in an accident or near-miss incident, and/or the operator has received an evaluation that reveals that the operator is not operating the truck safely. Re-certification required every 3 years.

## **FORKLIFT OPERATIONS**

No person shall be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

No personnel shall be permitted to ride on industrial power trucks or the load.

The operator shall not allow arms or legs to be placed between the uprights of the mast or outside the running lines of the truck at any time while in operations.

When an industrial power truck is unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes shall be set. Wheels shall be blocked if the truck is parked on an incline.

A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, or platform or freight car. Trucks shall not be used for opening or closing freight doors.

Brakes shall be set and wheel blocks shall be in place to prevent movement of trucks, trailers or railroad cars while loading and unloading. Fixed jacks are necessary to support a semi-trailer during loading or unloading when the trailer is not coupled to a tractor. Trailers and/or trucks must be chocked and secured.

The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weakness before they are driven on or across by the forklift.

There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler system, etc.

An overhead guard shall be used to protect against falling objects.

**Note!!!** It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application; but not to withstand the impact of a falling capacity load.

A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.

Only approved industrial trucks shall be used in hazardous locations.

Fire aisles, access to stairways, and fire equipment shall be kept clear.

## TRAVELING CONSIDERATIONS

All traffic regulations shall be observed, including authorized plant speed limits. A safe distance shall be maintained approximately three truck lengths from the truck ahead, and the truck shall be kept under control at all times.

The driver shall be required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing.

Headlights or flashing lights shall be used in obstructed or dark areas.

Grades shall be ascended or descended slowly:

When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.

Unloaded trucks shall be operated on all grades with the load engaging means downgrade.

On all grades the load and load engaging means shall be tilted back if applicable, and if raised only as far as necessary to clear the road surface.

Grades shall be ascended or descended perpendicular to the grade.

While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when manoeuvring at a very low speed, the hand steering wheel shall be turned at a moderate even rate.

## **LOADING CONSIDERATIONS**

Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off center loads, which cannot be centered.

Only loads within the rated capacity of the truck shall be handled.

Extreme care shall be used when lifting the load forward to backward, particularly when high tiering.

Tilting backward with load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward, except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

## **OPERATION OF THE FORKLIFT**

If at any time, a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.

Prior to operating the forklift for the first time during a shift, the operator shall inspect the forklift in accordance with manufacturer's guidelines.

Equipment shall be examined before being placed in service. Such examination shall be made at least daily. Where industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

Fuel tanks shall not be filled while the engine is running. Spillage shall be avoided and cleaned up promptly if it occurs.

Spillage of oil or fuel shall be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.

No truck shall be operated with a leak in the fuel system.

Open flames shall not be used for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

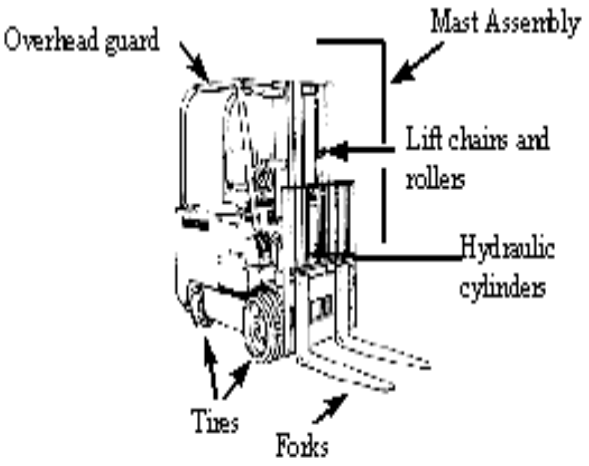
## **MAINTENANCE OF THE FORKLIFTS**

Any power-operated industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel in approved locations.

Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

All forklifts shall be inspected every shift, see Attachment 27D

## DAILY CHECKLISTS FOR POWERED INDUSTRIAL TRUCKS

<p><b>DAILY INSPECTION CHECKLIST</b> Electric Forklift Truck</p> <p><b>KEY OFF Procedures</b> The vehicle inspection Overhead guard Hydraulic cylinders Mast assembly Lift chains and rollers Forks Tires Examine the battery Check the hydraulic fluid level</p> <p><b>KEY ON Procedures</b> Check the gauges Hour meter Battery discharge indicator Test the standard equipment Steering Brakes Front, tail, and brake lights Horn Safety seat (if equipped) Check the operation of load-handling attachments</p>	<p style="text-align: center;"><b>Electric Forklift Truck</b></p>  <p>The diagram shows a side view of an electric forklift truck. Labels with arrows point to the following parts: 'Overhead guard' at the top rear, 'Mast Assembly' on the vertical structure, 'Lift chains and rollers' connecting the mast to the forks, 'Hydraulic cylinders' on the side of the mast, 'Tires' on the front wheel, and 'Forks' at the bottom front.</p>
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**DAILY INSPECTION CHECKLIST**

Propane Forklift Truck

**KEY OFF Procedures**

- The vehicle inspection
- Overhead guard
- Hydraulic cylinders
- Mast assembly
- Lift chains and rollers
- Forks
- Tires
- LPG tank and locator pin
- LPG tank hose
- Gas gauge
- Check the engine oil level
- Examine the battery
- Check the hydraulic fluid level
- Check the engine coolant level

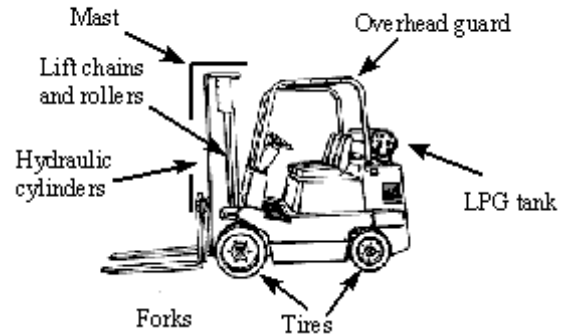
**KEY ON Procedures**

- Test the front, tail, and brake lights

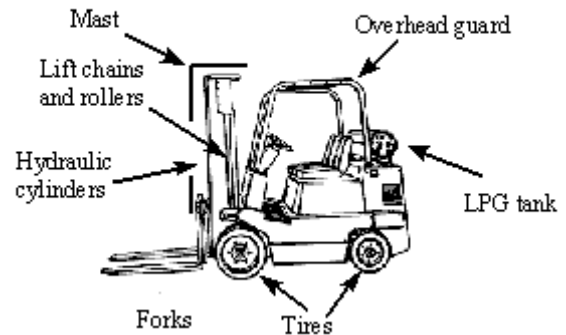
**ENGINE RUNNING Procedures**

- Check the gauges
- Oil pressure indicator lamp
- Ammeter indicator lamp
- Hour meter
- Water temperature gauge
- Test the standard equipment
- Steering
- Brakes
- Horn
- Safety seat (if equipped)
- Check the operation of the load-handling attachments
- Check the transmission fluid level

**Propane Forklift**



**Propane Forklift**





**DAILY INSPECTION CHECKLIST**

## Yard Forklift Truck

**KEY OFF Procedures**

The vehicle inspection  
 Overhead guard  
 Hydraulic cylinders  
 Mast assembly  
 Lift chains and rollers  
 Forks  
 Tires  
 LPG tank and locator pin  
 LPG tank hose  
 Gas gauge  
 Check the engine oil level  
 Examine the battery  
 Inspect the hydraulic fluid level  
 Check the engine coolant level

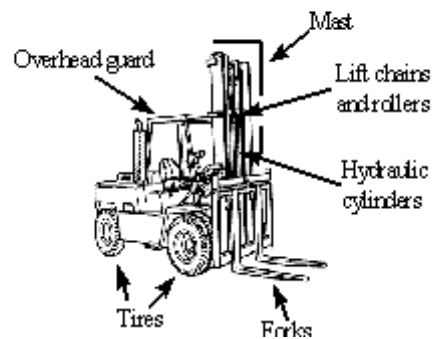
**KEY ON Procedures**

Test the standard equipment  
 Front, tail, and brake lights  
 Fuel gauge (if diesel)  
 Windshield wiper  
 Heater

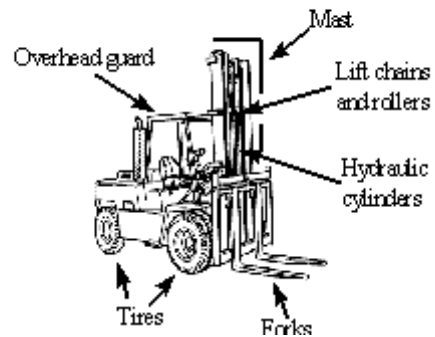
**ENGINE RUNNING Procedures**

Check the gauges  
 Oil pressure indicator lamp  
 Ammeter indicator lamp  
 Ammeter  
 Hour Meter  
 Water Temperature Gauge  
 Test the standard equipment  
 Steering  
 Brakes  
 Horn  
 Safety seat (if equipped)  
 Check the operation of load-handling attachments  
 Check the transmission fluid level

Yard Forklift



Yard Forklift



## GENERIC CHECKLIST FOR POWERED INDUSTRIAL TRUCKS

Overhead Guard - Are there broken welds, missing bolts, or damaged areas?

Hydraulic Cylinders - Is there leakage or damage on the lift, tilt, and attachment functions of the cylinders?

Mast Assembly - Are there broken welds, cracked or bent areas, and worn or missing stops?

Lift Chains and rollers - Is there wear or damage or kinks, signs of rust, or any sign that lubrication is required?  
Is there squeaking?

Forks - Are they cracked or bent, worn, or mismatched?  
Is there excessive oil or water on the forks?

Tires - What do the tires look like?

Are there large cuts that go around the circumference of the tire?

Are there large pieces of rubber missing or separated from the rim?

Are there missing lugs?

Is there bond separation that may cause slippage?

Battery Check - Are the cell caps and terminal covers in place?

Are the cables missing insulation?

Hydraulic Fluid - Check level?

Gauges - Are they all properly working?

Steering - Is there excessive free play?

If power steering, is the pump working?

Brakes - If pedal goes all the way to the floor when you apply the service brake, that is the first indicator that the brakes are bad. Brakes should work in reverse, also. Does the parking brake work? The truck should not be capable of movement when the parking brake is engaged.

Lights - If equipped with lights, are they working properly?

Horn - Does the horn work?

Safety seat - if the truck is equipped with a safety seat is it working?

Load Handling Attachments - Is there hesitation when hoisting or lowering the forks, when using the forward or backward tilt, or the lateral travel on the side shift?

Is there excessive oil on the cylinders?

Propane Tank - Is the tank guard bracket properly positioned and locked down?

Propane Hose - Is it damaged? It should not be frayed, pinched, kinked, or bound in any way.

Is the connector threaded on squarely and tightly?

Propane Odor - If you detect the presence of propane gas odor, turn off the tank valve and report the problem.

Engine Oil - Check levels.

Engine Coolant - Visually check the level. Note: Never remove the radiator cap to check the coolant level when the engine is running or while the engine is hot. Stand to the side and turn your face away. Always use a glove or rag to protect your hand.

Transmission Fluid - Check levels?

Windshield Wipers - Do they work properly?

Seat Belts - Do they work?

Safety Door - (found on stand up rider models) Is it in place?

Safety Switch - (found on stand up riding tow tractors) Is it working?

Hand guards - (found on stand-up riding tow tractors, walking pallet trucks, walking transtackers) Are they in place?

Tow Hook - Does it engage and release smoothly?  
Does the safety catch work properly?

Control Lever - Does the lever operate properly?

Safety Interlock - (found on order pickers) If the gate is open, does the vehicle run?

Gripper Jaws - (found on order pickers) Do the jaws open and close quickly and smoothly?

Work Platform - (found on order pickers) Does the platform raise and lower smoothly?

### **DETACHABLE FORK ADJUSTMENT**

When adjusting forks that are not attached to the mast, the following steps must be taken to minimize the risk of possible injury:

Raise the forks at least four feet to place forks in a more accessible position.

Tilt forks forward 45 degrees to redistribute the weight to aid in the adjustment.

Ensure the bar is properly lubricated.

Use the palm of the hand placed in the middle of the fork below the 90 degree turn to open and close the forks.

# Revision History

Rev	Rev Date	Rev By	Approved By	Description
1.0	1/3/2022	Shayne Torrans	Shayne Torrans	Initial Procedure
1.1	11/23/2022	Shayne Torrans	Shayne Torrans	Format Revision

**Approvals:**

Procedure Owner

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\_\_\_\_\_

# Competency Assessment

No.	Questionnaire	C/NYC
Q1		
A1		
Q2		
A2		
Q3		
A3		
Q4		
A4		
Q5		
A5		

Enclosed Attachments	
Risk Assessment	<input checked="" type="checkbox"/>
Environmental Aspect and Impact	<input checked="" type="checkbox"/>
Training and Competency	<input checked="" type="checkbox"/>
Measure and Evaluation Tools	<input checked="" type="checkbox"/>

# Competency Checklist

To be filled out by Trainer and signed by Employee, Assessor and Supervisor before being returned to the HSEQT Co-ordinator for recording purposes.

Procedure	Competency	Date	Competent YES / NO	Employee Signature

(Please tick appropriate box)

This employee is competent in performing the job.


This employee has not attained the competency level.

\*

\* *If the employee has not attained all competency levels, the Regional Manager must assess the action to be taken, provide an extension of training or alternative action as listed below.*

Alternate action to be taken: \_\_\_\_\_

Signed By	Employee:	_____	Date:	_____
	Trainer:	_____	Date:	_____
	Assessor:	_____	Date:	_____
	Regional Manager:	_____	Date:	_____

# Environmental Aspects and Impacts

## Identified Environmental Aspects and Impacts

The following table is a summary of the likely environmental aspects and impacts that may be identified during site inspections. The significance of each impact needs to be assessed using the Risk Assessment Model.

Activity	Aspect	Impact
<b>Purchasing &amp; Administrative Work</b>	Consumption of goods	Conservation of natural resources
	Consumption of energy (eg. Electrical equipment and facilities)	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Habitat loss
	Generation of waste (eg. Paper)	Consumption of space for waste disposal; Habitat loss
<b>Climate Control</b>	Consumption of energy	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Habitat loss
	Generation of noise	Disturbance to community; Habitat loss
<b>Cleaning of – offices / vehicles</b>	Storage, use and release of chemicals	Contamination of air, water or soil; Risk to human health
<b>Transport (Fleet vehicles / staff travel)</b>	Consumption of energy	Release of greenhouse gases and atmospheric pollution; Consumption of natural resources; Loss of habitat at all stages of generation; Light pollution
	Consumption of goods (eg. Oil)	Consumption of natural resources; Generation of waste; Habitat loss; Biodiversity impacts
	Generation of waste (eg. Oil)	Consumption of space for waste disposal; Potential contamination of water or soil; Habitat loss
	Exhaust emission	Release of greenhouse gases and atmospheric pollution
	Use of dangerous goods (eg. Batteries)	Potential contamination of air, water or soil; Risk to human health
	Generation of noise	Disturbance to community; Habitat degradation
<b>Operations</b>		

Sample only.  
To be filled in



# Risk Assessment

Risk Assessment // insert name here

<p><b>Step No:</b> Logical sequence</p>	<p><b>Sequence of Basic Job Steps</b> documented in the Procedure, Work Instruction and project plans. <b>Break down Job into steps.</b></p> <p>Each step should be logical and accomplish a major task.</p>	<p><b>Potential Safety &amp; Environmental Hazards/Impacts at the site of the Job</b></p> <p>Identify the actual and potential health and safety hazards and the environmental impacts associated with each step of the job.</p>	<p><b>Risk Rating</b></p> <p>Refer to the risk matrix or HSEQ.PRO.Risk Mgt</p>	<p><b>Recommended Corrective Action or Procedure</b></p> <p><i>Determine the corrective actions necessary to reduce the risk to as low as reasonably practical (ALARP) refer to HSEQ.PRO.Risk Mgt. The risk must be rediced or controlled to ALARP before work commences.</i></p> <p>Document who is responsible for implementing the controls to manage each hazard identified.</p>	<p><b>Risk Rating</b> refer to the risk matrix or HSEQ.PRO.Risk Mg</p>
1.					
2.					
3.					
4.					
5.					

# Audit



<b>Process:</b> insert// <b>Procedure:</b> Insert //			Date:	Audited by:
			Location of Audit:	Area Mgr/Supervisor:
Item	Question	Evidence Sited	Comments	Conformance Score 0,3,5
1.				
2.				
3.				
4.				
5.				
6.				
7.				
AUDITOR'S SIGNATURE:		CONFORMANCE SCORE: / 25	0 – Non-Conformance	
SAFETY REP'S SIGNATURE:		CONFORMANCE %:	3 – Continuous Improvement Opportunity	
			5 – Total Conformance	