

# Stoughton Utilities

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## **FORK LIFT / POWERED INDUSTRIAL TRUCK OPERATION & TRAINING PROGRAM**

**Approved by:**

*Stoughton Utilities Committee on \_\_\_\_\_*  
*City of Stoughton Common Council on \_\_\_\_\_*

City name: Stoughton Utilities	
Program name: Powered Industrial Truck	
Prepared by: MEUW SERSC	Date: 9-8-2008
Revised by: Christopher A. Belz	Date:
Coordinators: Wastewater System Supervisor Water System Supervisor Utilities Operations Superintendent	
Assisting Coordinator: Safety Coordinator	

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## **POLICY**

Stoughton Utilities is responsible for establishing and maintaining an effective Fork Lift Operation and Training Program in accordance with DCOMM/OSHA Standard, 29 CFR 1910.178 to protect the health and safety of all affected employees.

The concentration of this program will be on identifying, controlling, and eliminating hazards which create the potential for physical harm or destruction of property associated with the operation of industrial-powered trucks, as well as, providing site specific training in the safe operation and maintenance of forklifts.

## **FORKLIFT DEFINITION**

Any mobile power-propelled truck used to carry, push, pull, lift, stack or tier materials. Powered industrial trucks can be ridden or controlled by a walking operator.

Only those employees that have been designated by Stoughton Utilities and properly trained and certified in the safe operation shall be permitted to operate an industrial truck.

## **TRAINING**

Training shall be administered to designated employees at the time of hire into a job assignment requiring the use of industrial-powered trucks. Drivers shall be evaluated for competency and safe driving practices at least once every three years. Such evaluations may be conducted in a multitude of ways such as discussions with operators, observed driving competency, performance tests etc. If through evaluation it is determined that the driver is deficient in his or her abilities to safely operate a fork truck, refresher training shall be administered. Additionally, whenever one of the following situations arises, refresher training will be administered:

- An operator is involved in an accident or near miss incident.
- An operator is assigned to operate an unfamiliar truck.
- An operator is observed to operate a truck in an unsafe manner
- A condition in the workplace changes in a manner that could affect safe operation of the truck

Certificates/Documents of training shall be maintained in the forklift files for review.

Certificates/Documents shall indicate the date and score of the written examination as well as the date and score of a driving skills examination.

No employee shall be permitted to operate any industrial truck unless they have successfully passed a comprehensive training class, including a driving skills segment - conducted under the supervision of a trained instructor - emphasizing the safe operation of an industrial truck.

Any employee observed operating an industrial truck for which they have not received the required training shall be subject to immediate disciplinary action.

Training shall consist of, but not be limited to, the following elements:

1. Safe Operating Procedures and Rules for Industrial Trucks - Classroom Training
  - a) A score of 75% or better on the written examination to pass
2. Driving Skills and Familiarization Training.
  - a) Performance of Pre-Operation check completed.
  - b) Successful completion of Driving Skills test.
3. Proper Maintenance
  - a) start-up
  - b) routine

## **OPERATING PROCEDURES**

The following procedures shall be strictly followed whenever operating an industrial truck.

### **GENERAL**

1. Only authorized and licensed employees shall operate industrial lift trucks. Drivers shall operate only the make and model vehicles for which they have been specifically trained.
2. Operators must know where the **Operators Manual** is kept.
3. Only those industrial lift trucks approved for respective locations shall be used.
4. Safety glasses should be worn while operating lift trucks.
5. "Riders" shall not be permitted on industrial lift trucks.
6. Industrial lift trucks shall be operated at a safe and reasonable speed at all times.
7. Industrial truck operators shall always look and check all directions prior to placing the truck in motion and shall maintain vehicle control at all times.
8. Operators shall maintain adequate clearance between the load and overhead obstructions (piping, airlines, beams, etc.) at all times.

NOTE: The minimum clearance between loads and sprinkler lines shall be 18 inches.

9. Industrial lift trucks shall be driven in the direction of unobstructed vision. If the load being transported is too high to allow for clear forward vision, the vehicle shall be operated in reverse, with the operator looking in the direction of travel.
10. Operators shall drive their vehicles down the center of the aisle if the traffic is one-way or on the right hand portion of the lane if the traffic is two-way.

11. Operators shall maintain at least three (3) truck lengths, including the load, between other operating trucks to provide for safe stopping distances.
12. Operators shall reduce the speed of their vehicles when approaching pedestrians, traveling over obstructions, or approaching slippery surfaces such as ice, water, or oil.
13. Operators shall sound their horns when approaching pedestrians, corners, blind intersections, or areas of reduced lighting.
14. Obstruction of exits, fire extinguishers, or eyewash stations is strictly prohibited.
15. Operators shall not approach pedestrians standing in front of any stationary object.
16. Steering knobs or other such attachments shall not be permitted unless it was originally incorporated by the manufacturer as an integral part of the steering or operating mechanism.
17. Operators shall accelerate/decelerate and turn corners slowly and in a manner that prevents truck/load instability.
18. Operators shall maintain their body, including arms and legs, within the running lines or between the mast uprights of the vehicle at all times.
19. Employees shall not be permitted to stand, pass, or walk under the elevated portion of any industrial truck, loaded or empty, unless the lifting device has been effectively blocked to prevent it from falling.
20. Other trucks traveling in the same direction shall not be passed at intersections, blind spots, or other dangerous locations.
21. All operators of sit-down model fork trucks must wear a seat belt at all times when operating the truck – except on models where a seat belt is not part of the standard equipment.
22. If a lifting platform designed for personnel is used, the platform must be attached to the truck at two points and the platform must be equipped with controls which allow the person on the platform to disengage power to the truck.
23. Absolutely no horseplay or stunt driving will be tolerated.

### **RAMPS AND INCLINES**

1. Industrial trucks shall be operated directly up or down a ramp or incline to maximize truck stability.
2. Vehicle speeds shall be reduced when traveling up or down a ramp or incline.

3. The heaviest part of the vehicle shall be towards the up-grade section of the ramp or incline.

	<u>Traveling Up-Grade</u>	<u>Traveling Down-Grade</u>
Loaded	Forward	Reverse
Unloaded	Reverse	Forward

### **STACKING & UNSTACKING**

1. The maximum load capacity and load center distance ratings shall be prominently displayed and legible on the manufacturers rating plate. This information plate shall be maintained at all times on the vehicle.
2. All loads shall be inspected prior to travel to ensure load stability and that it is within the vehicles rated capacity. Under no circumstances shall unstable loads be moved.
3. Interlock stacked material whenever possible to improve load stability.
4. Inspect all racks and adjacent stored materials for stability prior to stacking a load.
5. Position vehicle forks at the maximum width for the load, maintaining them completely under the load to be moved.
6. Extreme care shall be exercised when tilting the load forward or backward, particularly when high tiering. Tilting forward with an elevated load shall be prohibited except when ready to deposit the load over a designated rack or stack. When tiering, only enough backwards tilt will be used to stabilize the load.
7. When traveling with the load, blades shall be maintained at a height of approximately four inches from the floor and adjustments made where surface changes occur.
8. Load backrest extensions are designed to prevent objects from falling rearward towards the operator.
9. Fall protection cages are provided to protect the operator from small falling objects such as bags, boxes etc. They are not designed to protect from falling capacity loads.

### **TRACTOR TRAILER LOADING & UNLOADING**

1. Prior to entering any trailer, the interior shall be inspected for any defects with particular attention paid to the floor surface. Any defects or unsafe conditions shall be reported immediately and the trailer shall not be entered until the defects have been corrected and entry can be performed safely.
2. Prior to entering a trailer where the tractor is still attached, the operator shall ensure that the tractor/trailer brakes are set and that the rear dual wheels of the trailer are properly chocked.
3. All dock plate mechanisms shall be properly set prior to entering a trailer. These devices shall be inspected at frequent intervals during the loading and unloading process to ensure

continued stability.

4. All dock plate devices shall be approached and crossed squarely. Turning on a dock plate device is strictly prohibited.

## **PARKING**

1. When an industrial truck is left unattended, the load engaging device shall be fully lowered, controls shall be neutralized, the power shut off, and the brakes set.

Note: A vehicle is considered unattended whenever the operator is 25 feet or more away from the truck while still in view or whenever the operator leaves the truck and it is not in his/her view.

2. Park industrial trucks in designated areas only. Never block fire exits, fire extinguishers, or eyewash stations.
3. The vehicle wheels shall be blocked if the industrial truck is parked on an incline. Ensure that the weight of the vehicle is positioned upgrade.

## **INSPECTION, MAINTENANCE, & FUELING/CHARGING**

1. Industrial trucks shall be inspected daily, prior to the start of each shift, utilizing the inspection form found on page 15.
2. Vehicles with unsafe conditions shall be removed from service immediately and not returned until all deficiencies have been corrected.
3. No repairs shall be made in class I, II, or III areas
  - Class I – Location in which flammable gases or vapors are, or may be present in the air in quantities sufficient to produce explosive or ignitable gases.
  - Class II – Locations which are hazardous because of the presence of combustible dust.
  - Class III - Locations where easily ignitable fibers are present but not likely to be in suspension sufficient to produce ignitable mixtures.
4. Repairs to the fuel and ignition system shall be performed only in designated areas.
5. All repairs to a trucks electrical system must be performed with the battery disconnected
6. Vehicles shall be monitored for carbon monoxide emissions and levels shall be maintained below 50 parts per million (PPM) of air. Vehicles exceeding this level shall be taken out of service immediately and not returned until corrections have been implemented to reduce the emissions level below the 50 PPM criteria.
7. A written maintenance log for each vehicle shall be maintained on file with the maintenance department to ensure that servicing as recommended by the equipment manufacturer or required by daily inspection logs is being performed.

8. All industrial trucks shall be maintained in a clean condition, being free of excess dirt, oil, and grease buildup. When cleaning trucks non combustible cleaning agents should be used. Low flash point solvents (below 100<sup>0</sup> F) shall not be used. High flash point solvents (at or above 100<sup>0</sup> F) may be used if proper precautions are taken in regards to fire, ventilation and toxicity.
9. Industrial trucks shall not be altered from their original operating condition, including the addition of counterweights, without certified approval of the equipment manufacturer.
10. Refueling of LP gas industrial trucks shall only be performed by individuals that have been properly trained. Certificates of training shall be maintained on file for review.
11. During the refueling process, the following protective measures shall be followed:
  - a) Protective gloves, apron, and a face shield shall be worn.
  - b) Tanks shall be refueled in designated areas only. Remove all combustible material within ten (10) feet of the filling equipment.
  - c) Extreme care shall be exercised when installing or removing fuel tanks.
  - d) Smoking shall be forbidden within twenty-five (25) feet.
  - e) There shall be no source of open flames, sparks, or electric arcs within twenty five (25) feet of any battery charging area.
  - f) Stop the vehicle's engine prior to commencing refueling activities.

## **EMERGENCY PROCEDURES**

1. Report all accidents, no matter how minor, to your Supervisor immediately.
2. In the event there is a fire involving your industrial truck:
  - a) Extinguish the fire, if possible, without endangering yourself or others.
  - b) Shut off the LP gas tank.
  - c) Report the incident immediately to your Supervisor.
  - d) Do not attempt to restart the vehicle until it has been thoroughly inspected by a certified forklift service technician and has been approved to be returned to service.



*Stoughton Utilities*

**FORKLIFT OPERATORS EXAMINATION**



***EMPLOYEE NAME***

---

***EMPLOYEE SIGNATURE***

---

***DATE***

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1. Trucks shall not be driven up to anyone standing in front of a bench or other fixed object. T F
2. No person shall be allowed to stand or pass under the elevated portion of any truck, unless the lifting mechanism is securely blocked. T F
3. Unauthorized persons may operate fork trucks during the day. T F
4. When should the inspection of the lift truck be performed?
  - A. Beginning of each shift.
  - B. Beginning of each day.
  - C. Every 40 hours.
  - D. When strange noises are detected.
5. When picking up a load, the forks must be spaced?
  - A. As close together as possible.
  - B. As wide apart as the load will allow.
  - C. Does not matter as long as the load is stable.
6. Arms and legs must be kept inside the running lines of the trucks. T F
7. When an operator is 25 ft. or more away from the fork truck but has sight of the fork truck or when the vehicle is not within sight, the vehicle is considered attended. T F
8. When a fork truck is unattended the operator should:
  - A. leave the truck running with the load suspended at the highest lift point
  - B. Lower the lift engaging device to the lowest point, neutralize and shut power off, set parking brake.
  - C. Pray that the safety director doesn't catch you without your safety glasses on.
9. When traveling on loading ramps and dock plates operators should always
  - A. Drive at an angle with the ramp or dock with an overrated load
  - B. Drive at a high rate of speed
  - C. Drive straight on the ramp or dock plate at a reduced speed

10. The minimum clearance between a sprinkler head and a load is:
- A. 2 inches
  - B. 18 inches
  - C. 36 inches
11. When loading or unloading a trailer with a fork truck the following procedures should be followed
- A. Check to be sure that the trailer tires are chocked, inspect the ramp or dock leveler for proper positioning, inspect the trailer floor for damage
  - B. Check the truck's oil level, make sure the trailer is licensed, inspect the product before unloading to be sure it is not damaged.
  - C. Check the clock because you don't want to miss your break, get a drink of water, talk to the hauler about what you are doing next weekend.
12. Overhead fall protection is intended to protect the operator from
- A. Falling capacity loads
  - B. Small packages and light objects.
  - C. Rain, snow or bird droppings.
13. A load backrest extension shall be used to minimize the possibility of the load or any part of it from
- A. Catching on fire
  - B. Being stolen
  - C. Falling rearward toward the operator
14. When a truck is equipped with vertical and / or horizontal controls elevatable with a lifting platform for personnel the following requirements shall be met
- A. The lifting platform shall be secured to the carriage by at least 2 points
  - B. Means shall be provided whereby the person(s) on the platform can shut off power to the truck
  - C. The forklift is classified for use in Type II areas
  - D. both A and B

15. When traveling behind another forklift a minimum safe distance of \_\_\_\_\_ truck lengths shall be maintained
  - A. 1
  - B. 2
  - C. 3
  
16. At intersections and when approaching pedestrian traffic the fork truck operator shall
  - A. Speed up and lift the load
  - B. Slow down and sound the horn
  - C. Stop the truck
  
17. The driver shall maintain a good field of vision in the direction of travel at all times. T F
18. When traveling on a grade with a loaded truck the load shall always be positioned downgrade. T F
19. When traveling the forks should be raised between 4 and 6 inches of the floor. T F
20. A fork truck shall always be operated at a speed which allows it to be stopped in a safe manner. T F
21. Stunt driving and horseplay will be allowed on Tuesdays and Thursdays. T F
22. Running over loose objects on the path of travel shall be avoided. T F
23. Passengers are allowed on forklifts as long as they stay inside the running lines. T F
24. Overloading a truck is acceptable so long as counterweight is added. T F
25. Special attachments like lifting slings and fork extensions do not require additional training or precautionary measures. T F
26. When carrying a load the forks should be tilted to the extreme forward position. T F
27. Repairs on industrial trucks may be performed by any person in the facility. T F
28. It is the responsibility of each operator to ensure that the truck they are driving is in good running condition and that the pre-operation checklist has been filled out at the beginning of each shift. T F
29. Any unsafe conditions on a fork truck which require repair can be put off until the next shift. T F
30. When refueling a forklift, it is ok to smoke and leave the engine running. T F

- |     |   |   |   |
|-----|---|---|---|
| 31. | Oil and debris which collects on parts of the fork truck are good because they protect the finish of the vehicle.   | T | F |
| 32. | If a fuel system is found to be leaking on a fork truck - the truck should be shut off, the fuel supply shut off, and the truck should be inspected by maintenance.   | T | F |
| 33. | Repairs to fuel systems and ignition systems may be performed anywhere in the facility.   | T | F |
| 34. | When electrical system repairs are performed the battery must be disconnected.  | T | F |
| 35. | Modification to forklifts is acceptable so long as all parts used are made of steel.  | T | F |
| 36. | When any part of a forklift exceeds standard operating temperatures, the truck shall be taken out of service and inspected by maintenance. The truck shall not be returned to duty until the problem, if any exist, is fixed. | T | F |
| 37. | Seat belts are not required to be worn on sit-down model trucks equipped with roll-over protection.   | T | F |
| 38. | Fork truck operators need to wear safety glasses while operating a lift truck.  | T | F |
| 39. | Modifications can be made to a fork truck anytime the driver feels it is necessary.   | T | F |

# ***STOUGHTON UTILITIES***

## **Forklift Operation Training Verification Form**

\_\_\_\_\_, on \_\_\_\_\_ 20\_\_ successfully completed the classroom instruction on  
forklift operation and achieved a score of \_\_\_\_\_ on the written exam.

\_\_\_\_\_  
Instructor

\_\_\_\_\_, on \_\_\_\_\_ 20\_\_ successfully completed Pre-Operation Check.

\_\_\_\_\_  
Instructor

\_\_\_\_\_, on \_\_\_\_\_ 20\_\_ successfully completed driving skills / road test.

\_\_\_\_\_  
Course Observer

# **PRE-OPERATION FORKLIFT CHECKLIST**

DATE	INSPECTED BY	STATUS	OK	REPAIR	OK	REPAIR	OK	REPAIR	OK	REPAIR	OK	REPAIR
		No oil or water leaks.										
		Overhead guard condition										
		Mast condition (tilt, raise/lower)										
		Hydraulic and other fluid levels										
		Excessive wear on fluid lines and fittings										
		Hydraulic cylinder condition										
		Fuel Tank condition/secure										
		Tire wear (Check air pressure)										
		Lights/levers/gauges working properly										
		Back up alarm functional										
		Sound horn										
		Fire Extinguisher										
		Pedals (accelerator, brake, neutral)										
		Parking brake operational										
		Steering										
		Forks										
		Valve wear or damage										

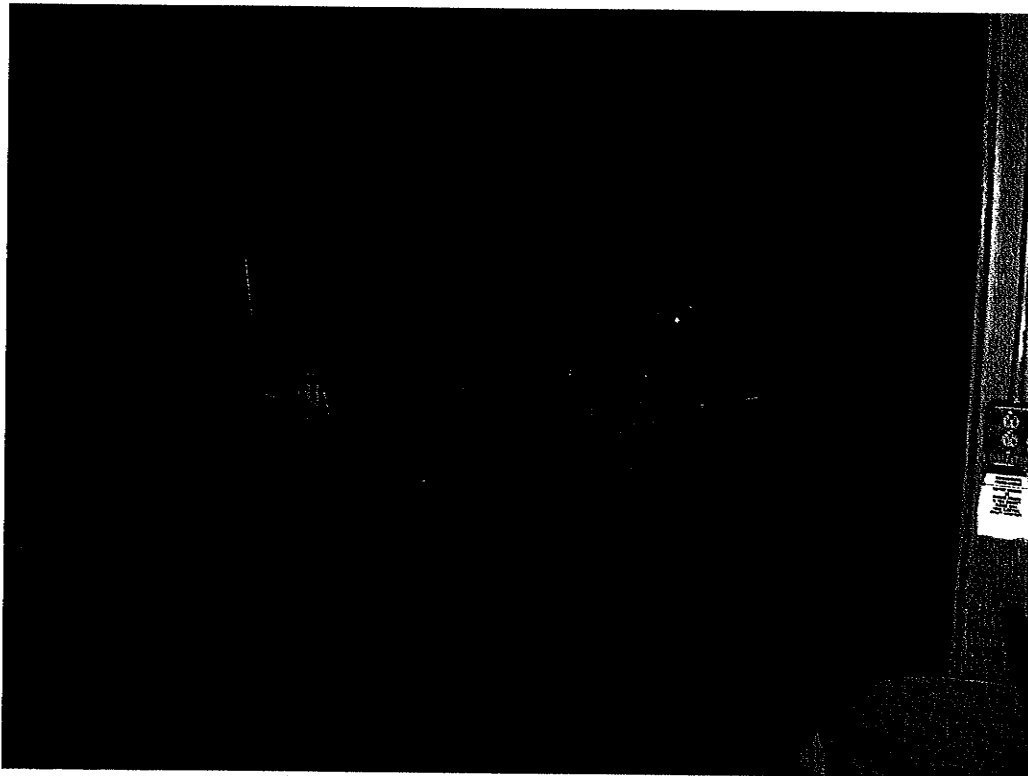
List items needing repair by date found to be needing that repair.

**COMMENTS**

**Stoughton Utilities**

**FORKLIFT IDENTIFICATION LIST**

TRUCK #	MAKE	MODEL	Weight	SERIAL NUMBER	CAPACITY	LOCATION
25	Mitsubishi	FG25	8180 lb	AF17A-51973	5000# @ 24 in	Utility Shop





## PLANNED MAINTENANCE

MONTH \_\_\_\_\_ DAY \_\_\_\_\_ YEAR \_\_\_\_\_ TECHNICIAN \_\_\_\_\_ Lift # \_\_\_\_\_

### 1. WALK AROUND INSPECTION

OK	RR	
___	___	Fluid Leaks
___	___	Carriage Rollers/Slider Blocks
___	___	Mast/Chains/Retainers/Sheaves/Anchors
___	___	Forks & Fork Lock Pins
___	___	Tires & Wheels
___	___	Tilt Cylinders, Lines, Connections
___	___	Lift Cylinders, Lines, Connections
___	___	Steering Linkage, Valves, Lines
___	___	Cleanliness of Operators Compartment
___	___	Hydraulic Control Valve
___	___	Hydraulic Sump Filler Cap
___	___	Improper Modifications
___	___	Frame & Sheet Metal Damage

### 2. OPERATIONAL INSPECTION

OK	RR	
___	___	Neutral Starting Switch
___	___	Instruments/Gauges/Warning Lights
___	___	Service Brakes – Firm Resistance
___	___	Parking Brakes – No Drive Through
___	___	Inching Pedal/Clutch- No Slippage
___	___	Directional Control Lever/Pedal
___	___	Shift Lever(s)
___	___	Steering Responsiveness
___	___	Unusual Noise
___	___	Mast & Carriage Operations
___	___	Attachment Operations
___	___	Starting System

### 3. CLEAN, LUBE OR FILL

OK	RR	
___	___	Radiator & Coolant System
___	___	Engine Compartment
___	___	Transmission Oil
___	___	Differential Oil
___	___	Steering System & Steer Axle
___	___	Hydraulic System & Control Valve
___	___	Mast, Chains, Carriage, Attachments
___	___	Brake Master Cylinder and Fluid Reservoir
___	___	Check & Lube Linkage on:
___	___	Service Brakes
___	___	Parking Brake
___	___	Clutch/Inching Pedal
___	___	Accelerator Pedal

### 4. SAFETY

OK	RR	
___	___	Horn
___	___	Warning Devices (Back-up Alarm, Strobes etc.)
___	___	Overhead Guard
___	___	Load Backrest
___	___	Mast, Fork, Chain damage/Excess Wear
___	___	Floodlights
___	___	Tire Damage/Excessive Wear
___	___	Steering
___	___	Brakes-Service or Parking
___	___	Operator Restraint System (if equipped)

### 5. INTERNAL COMBUSTION CHECKS

OK	RR	
___	___	Wire Connections & Condition
___	___	Engine Oil & Filter
___	___	Clean P.C.V. Valve
___	___	Clean Air Filter & Canister
___	___	Intake Hoses, Clamps, Elbows
___	___	Belts-Condition & Tension
___	___	Exhaust Pipe & Muffler
___	___	Clean/Replace Fuel Filter
___	___	Fuel System Leaks
___	___	Carburetor-High Idle/Low Idle
___	___	Diesel – Cold Start/Glow Plugs
___	___	Diesel – Clean Water Trap
___	___	Fuel Lock-off
___	___	Clean Battery cables and Terminals
___	___	Battery Electrolyte Levels

### 6. ELECTRIC VEHICLE CHECKS

OK	RR	
___	___	Battery Electrolyte Level
___	___	Battery Connector Condition
___	___	Panel Power Connections
___	___	Contactors Tips
___	___	Contactors Assemblies & Switches
___	___	Potentiometer
___	___	Seat Switch
___	___	Brush Wear indicators
___	___	Battery Discharge Indicators

### EVERY 6 MONTHS

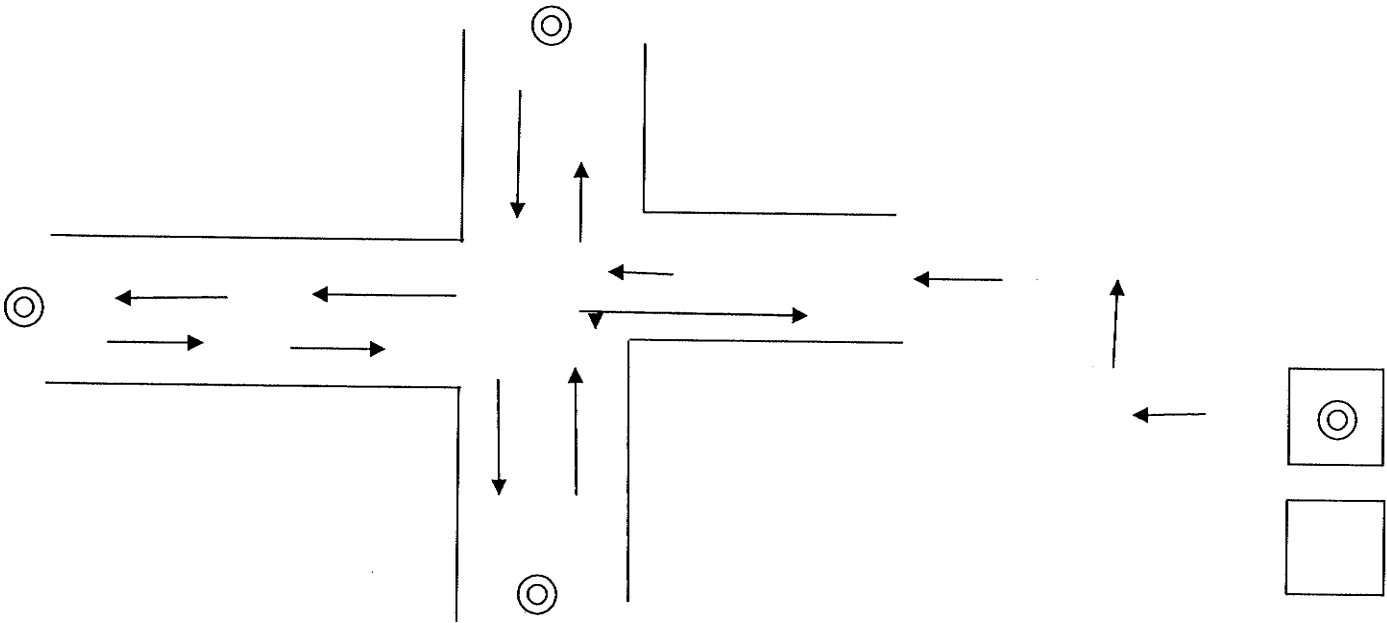
___	Change power shift transmission oil/filter
___	Change differential oil
___	Change hydraulic tank oil filter
___	Change fuel filter
___	Change air cleaner element
___	Change engine Coolant
___	Adjust lift chains
___	motor brush length
___	Motor brush spring force

### EVERY 12 MONTHS

___	Change hydraulic oil & filter
___	Change brake fluid
___	Inspect brakes
___	Replace sparkplugs & tune Engine
___	Magnaflux testing on forks
___	Repack drive and Steering wheel bearings

***Stoughton Utilities***  
**SKILLS EXAMINATION**

			Score
1.	Knowledge of Pre-operation check Procedures	(1-14)	_____
2.	Wearing Safety Belt	(5)	_____
3.	Knowledge of trucks capacity	(5)	_____
4.	Pylon Exam	(12)	_____



**Pick up double stacked load (bottom skid loaded with product – top skid 5 gallon pail of water ¾ full)  
Move tiered load into pattern, right turn, set down load, obtain top skid, back out, place top skid in  
one of the open paths, obtain bottom skid place back at start, obtain top skid, load back onto bottom  
skid at beginning of run. Park and secure lift.**

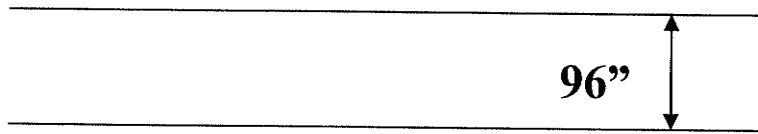
**5. Pallet Exam (4)** \_\_\_\_\_

**Check for Load Center, Load tilted back toward lift, forks spread to proper distance, load secure**

6. **Tiering using 5 gallon pail of water on pallet** (4) \_\_\_\_\_

**No spilling of water (looking for sudden movements, stops, turns - skid centered on load)**

**7. Back-up** (6) \_\_\_\_\_



**Looking over both shoulders. Check Blind Spots. Not striking cones (product or walls). Speed Control.**

Employee \_\_\_\_\_ Instructor \_\_\_\_\_ Date \_\_\_\_\_ Total Score \_\_\_\_\_